

DE GRUYTER  
SAUR



PUBLICATIONS 151

*Jesús Lau, Anna Maria Tammaro,  
Theo Bothma (Eds.)*

# LIBRARIES DRIVING ACCESS TO KNOWLEDGE





International Federation of Library Associations and Institutions  
Fédération Internationale des Associations de Bibliothécaires et des Bibliothèques  
Internationaler Verband der bibliothekarischen Vereine und Institutionen  
Международная Федерация Библиотечных Ассоциаций и Учреждений  
Federación Internacional de Asociaciones de Bibliotecarios y Bibliotecas  
国际图书馆协会与机构联合会

الاتحاد الدولي لجمعيات ومؤسسات المكتبات

## About IFLA

[www.ifla.org](http://www.ifla.org)

IFLA (The International Federation of Library Associations and Institutions) is the leading international body representing the interests of library and information services and their users. It is the global voice of the library and information profession.

IFLA provides information specialists throughout the world with a forum for exchanging ideas and promoting international cooperation, research, and development in all fields of library activity and information service. IFLA is one of the means through which libraries, information centres, and information professionals worldwide can formulate their goals, exert their influence as a group, protect their interests, and find solutions to global problems.

IFLA's aims, objectives, and professional programme can only be fulfilled with the cooperation and active involvement of its members and affiliates. Currently, approximately 1,600 associations, institutions and individuals, from widely divergent cultural backgrounds, are working together to further the goals of the Federation and to promote librarianship on a global level. Through its formal membership, IFLA directly or indirectly represents some 500,000 library and information professionals worldwide.

IFLA pursues its aims through a variety of channels, including the publication of a major journal, as well as guidelines, reports and monographs on a wide range of topics. IFLA organizes workshops and seminars around the world to enhance professional practice and increase awareness of the growing importance of libraries in the digital age. All this is done in collaboration with a number of other non-governmental organizations, funding bodies and international agencies such as UNESCO and WIPO. IFLANET, the Federation's website, is a prime source of information about IFLA, its policies and activities: [www.ifla.org](http://www.ifla.org)

Library and information professionals gather annually at the IFLA World Library and Information Congress, held in August each year in cities around the world.

IFLA was founded in Edinburgh, Scotland, in 1927 at an international conference of national library directors. IFLA was registered in the Netherlands in 1971. The Koninklijke Bibliotheek (Royal Library), the national library of the Netherlands, in The Hague, generously provides the facilities for our headquarters. Regional offices are located in Rio de Janeiro, Brazil; Pretoria, South Africa; and Singapore.

IFLA Publications 151

**Libraries  
Driving Access  
to Knowledge**

Edited by  
Jesús Lau, Anna María Tammaro  
and Theo Bothma

De Gruyter Saur

IFLA Publications  
edited by Louis Takács and Ingeborg Verheul

ISBN 978-3-11-025326-9  
e-ISBN 978-3-11-026312-1  
ISSN 1868-8438

*Library of Congress Cataloging-in-Publication Data*

A CIP catalog record for this book has been applied for at the Library of Congress

*Bibliographic information published by the Deutsche Nationalbibliothek*

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data is available in the Internet at <http://dnb.dnb.de>.

Walter de Gruyter GmbH & Co. KG, Berlin/Boston

© 2012 by International Federation of Library Associations  
and Institutions, The Hague, The Netherlands

∞ Printed on permanent paper

The paper used in this publication meets the minimum requirements of American National Standard – Permanence of Paper for Publications and Documents in Libraries and Archives ANSI/NISO Z39.48-1992 (R1997)

Typesetting: Dr. Rainer Ostermann, München

Printing and binding: Strauss GmbH, Mörlenbach

Printed in Germany

[www.degruyter.com](http://www.degruyter.com)

# Contents

Acknowledgements . . . . .	7
Preface . . . . .	9
Foreword . . . . .	13
<i>Ellen R. Tise</i> Libraries Driving Access to Knowledge (A2K) . . . . .	17

## Part One – User-Oriented A2K Actions

<i>Ingibjörg Steinunn Sverrisdóttir and Þórdís T. Þórarinsdóttir</i> Iceland Goes Digital: Countrywide Access to Electronic Resources . . . . .	37
---	----

<i>Rumyana Koycheva</i> ‘Access for All’ and ‘Politics of Difference’: Comparative Case Study of Two European Libraries . . . . .	67
---	----

<i>Jenny Narborough, Ruth Stubbings, and Graham Walton</i> Using Web 2.0 to Make Libraries More User-Oriented: Outcomes from a Case Study at Loughborough University Library (UK) . . . . .	93
---	----

<i>Marsha Winter and Stella Sandy</i> OA to Knowledge: Perceptions of UWI Researchers on the St. Augustine Campus, Trinidad and Tobago . . . . .	113
--	-----

## Part Two – Libraries and Lifelong Learning

<i>Martin Hallik and Liisi Lembinen</i> Native Language University Digital Textbook Collection . . . . .	141
---	-----

<i>Loriene Roy, Kristen Hogan, and Spencer Lilley</i> Balancing Access to Knowledge and Respect for Cultural Knowledge: Librarian Advocacy with Indigenous Peoples’ Self-Determination in Access to Knowledge . . . . .	163
--	-----

*Maria-Carme Torras i Calvo*

Access to Knowledge as a Social Practice: Information  
Literacy Education for MA Students . . . . . 191

### Part Three – Libraries as Space and Place in A2K

*Catherine Closet-Crane*

The Discursive Construction of the Academic Library as  
Learning Place in A2K . . . . . 215

*Paula Sequeiros and Silvia Grünig*

A Tale of Two Libraries: Space and Reading in Porto  
Public Libraries . . . . . 247

*Anne Lehto, Leena Toivonen, and Mirja Iivonen*

University Library Premises: The Evaluation of Customer  
Satisfaction and Usage . . . . . 289

### Part Four – Other A2K Theme Approaches

*Elsa Barber, Silvia Pisano, Sandra Romagnoli, Verónica Parsiale,  
Gabriela de Pedro, Carolina Gregui, Nancy Blanco*

ILS vs. DBMS in Latin American Web OPACs: Discriminant  
Analysis Applied to User Interface . . . . . 317

*Nancy Gómez and Paola C. Bongiovani*

Open Access and A2K: Collaborative Experiences in  
Latin America . . . . . 343

*Shun-han Rebekah Wong*

The Success Story of a Locally Developed Online Video Site:  
HKBUtube . . . . . 373

## Acknowledgements

There are a number of individuals and organizations who have contributed to the successful completion of this book. I am truly grateful to the people that have contributed their time, work and effort in the compilation of this book.

I would like to express my deepest appreciation to IFLA and all of its affiliates for the opportunity to serve as their President. I would also like to take this opportunity to sincerely thank the editorial team, Jesús Lau, Anna Maria Tammaro and Theo Bothma for their significant professional contribution in compiling this book.

My appreciation also goes to Jānis Kārklīņš from UNESCO for writing the foreword. It would not have been possible to put this publication together had it not been for the insightful contribution from all of the authors to the different chapters. Last but not least, a heartfelt thanks to all of the participants to the brainstorming sessions and the initial President-elect Working Group.

### **President-elect Working Group, 2007–2009**

Jesús Lau

Anna Maria Tammaro

Pascal Sanz

Sinnika Sipilä

Xiaolin Zhang

*Ellen R. Tise*

*IFLA President, 2009–2011*

*May 2012*





## Preface

This book is a volume of case studies and academic papers on Ellen Tise's Presidential theme for 2009–2011 – *Libraries Driving Access to Knowledge* (A2K). It provides insights into current and prospective practices in providing access to knowledge in libraries and the use of technological devices to assist A2K. The book also provides relevant theoretical frameworks, latest empirical research findings, and practitioners' best practices in the subject. The different chapters are a product of a call for papers published on IFLA's website. It received an excellent reply from potential authors worldwide in 2009. After selecting of the abstracts that complimented the theme and scope of the book, authors were asked to write full chapters in 2010. The submitted chapters were further screened and feedback was provided to the authors for improvements. The end result is a monograph with thirteen chapters grouped in four sub-themes: User-Oriented A2K Actions; Libraries and Lifelong Learning; Libraries as Space and Place in A2K; and Other A2K Theme Approaches. All papers are in English. However, the mother tongues of the authors represent a mosaic of nine languages and twelve countries.

A foreword written by Jānis Kārklīņš, Assistant Director-General of UNESCO's Communication and Information Division and an introductory chapter written by Ellen Tise follow the usual book preliminaries. The body of the monograph is grouped according to the following subthemes:

### User-Oriented A2K Actions

Four chapters are included under this subheading, beginning with the contribution by Sverrisdóttir and Pórarinsdóttir, who focus on opening access to electronic databases and e-journals via a countrywide portal. A significant issue and a break-away from common practice is the sharing of resources among all types of libraries – such a process truly addresses the issue of open access – open access to all. As much as libraries strive to open access to material, it is the authors of research material that need to be receptive to publishing in open access forums. Koycheva, on the other hand, has the public library approach of transforming the library profession and the management styles in place. Politics of difference and access for all are also the trends reviewed and compared. The chapter by Narborough, Stubbings and Walton engages in discussion on exploiting contemporary technology in delivering information in forums that students relate to the most. The chapter by Winter and Sandy investigates, ad-

ditionally, this receptiveness against the backdrop of libraries exploring options for managing, preserving and disseminating digital assets.

## Libraries and Lifelong Learning

The first two chapters in this section by Hallik and Lembinen and that by Roy, Hogan and Lilley investigate the issue of inclusivity. They engage in discourse on the issue of native language material being available globally. Roy, Hogan and Lilley emphasize the dual role of indigenous peoples' cultural rights for access to knowledge: the need for support of indigenous cultural production and the vital importance of indigenous peoples' self-determination of access to cultural knowledge. These cultural rights are founded in indigenous worldview and codified in the Declaration on the Rights of Indigenous Peoples. Libraries, librarians and other information providers are encouraged to take a stance to place access to knowledge and information high on their agendas. Opening access to knowledge and information comes with other responsibilities such as delivering well structured information literacy programs which will guide users in identifying trusted and authentic information and using that information ethically. Contemporary technology also influences the spaces libraries use in delivering or making available information. There is a paradigm shift away from libraries as a warehouse of information to libraries as a social space that facilitates rigorous engagement in the production of new knowledge and information. The last chapter of this part, by Torras i Calvo, proposes a model for information literacy education, a basic role that libraries need to assume to foster library quality demand.

## Libraries as Space and Place in A2K

The initial chapter by Closet-Crane is devoted to the study of the discourse on academic library planning and design developed in seminal texts from the professional literature with the aim to explore the discursive construction of the academic library as learning place. Lehto, Toivonen and Iivonen, on the other hand study university library facilities with regard to the satisfaction and usage of customers, while Sequeiros and Grünig engage in the discussion of the changing role of the library and the concomitant use of library space to drive access to knowledge and information. The physical design of a library can certainly inhibit or foster its use, therefore the architectural design must aim to attract and retain users in their search of access to knowledge.

## Other A2K Theme Approaches

The contribution by Barber, Pisano, Romagnoli, Parsiale, de Pedro, Gregui and Blanco present a study of Web OPACs in academic, special, public and national libraries in Latin America to study their management system and establish the differences between Integrated Library Systems (ILS) and Database Management Systems (DBMS). As indicated earlier, the fundamental purpose of open access, from the perspective of the library, is to remove barriers that hinder access to knowledge and information. It is proposed that the removal of such barriers will contribute to the growth of society and knowledge economies. Therefore, open access can be nothing less than a public good. The chapter by Gómez and Bongiovani discusses how open access can restore the condition of knowledge as a global public good. In ensuring open access is a public good there has to be a commitment to be all inclusive, that is, ensuring minority communities and indigenous populations are part of the knowledge and information main stream. In the last chapter of the book, Wong acknowledges the importance of ICT in the learning environment as a way to approach younger generations, promoting the use of videos as a tool through the recently created HKBUtube, a local online video site.



## Foreword

In writing this foreword, I am reminded of the quotation by an unknown author that “Knowledge is free at the library. Just bring your own container”. All that it takes to acquire knowledge is an open and willing mind; the library can handle the rest.

The role of libraries in driving access to knowledge is as old as libraries themselves. They are the caretakers of the ideas that have been recorded and compiled over the years, and which libraries have transformed into knowledge by putting them into context. Because of their fundamental character and their mission of social responsibility, libraries are an impartial but authoritative voice. In this regard, they also help to build an informed community that can function effectively in defence of its democratic rights and values, while contributing to the development of society.

In order to successfully implement its own programs, UNESCO has always relied on libraries and librarians. They have helped us to realize our strategies for universal access to knowledge and building Knowledge Societies. Further, the organization works closely with libraries and librarians to formulate national information policy frameworks, preserve documentary information in all its forms, build information literacy capacities, encourage the development of knowledge societies and foster ethical considerations for the information society.

Libraries are an integral component in our current activities of which I will cite three of the most important – information preservation, media and information literacy and open access to scientific information.

In the area of information preservation, our main activity is the Memory of the World Program (MoW), the UNESCO flagship action for the protection and promotion of documentary heritage. No matter on what medium it has been recorded, it is our belief that documentary heritage should be permanently accessible to all. MoW contributes to UNESCO’s mission of building knowledge societies in support of improved quality of life and sustainable development. Education and training of information specialists has been given emphasis under the Program as the transfer of knowledge and skills is essential in enabling these practitioners to remain relevant and cope with rapidly evolving technological developments.

This is especially valid as in recent years, the digital revolution has modified the ways in which knowledge is created and processed. This digital heritage also forms part of the MoW and, along with its *Charter on the Preservation of Digital Heritage*, UNESCO is seeking to raise awareness of the complexities of maintaining long-term access to this newer form of heritage. Our

involvement with the World Digital Library, and collaboration with the Library of Congress, further contributes to the attainment of knowledge through intercultural dialogue on a multilingual platform that facilitates access to knowledge in a more easily assimilated form that showcases many of the world's documentary treasures.

All these activities are implemented in association with IFLA whose Digital Library Manifesto is intended to help librarians "collaborate with other cultural and scientific heritage institutions to provide rich and diverse digital resources that... must be sustainable for our generation and for generations to come".

A second area of mutual interest concerns the promotion of Media and Information Literacy (MIL) and incorporation of information literacy issues in curricula. This is being achieved through the integration of libraries into information literacy programs, and in cooperation with IFLA and other partners. UNESCO has organized training the trainer workshops to build capacities of information professionals and develop information literacy skills and programs, of which one prime example is the creation of an international directory database of information literacy resources in English and Spanish ([www.infolitglobal.info](http://www.infolitglobal.info)).

The main objective is to enable people to develop critical abilities through media and information literacy. In recent years, UNESCO has been working to develop indicators to assist its Member States to measure levels of information literacy as a means of better defining requirements in national development plans. As part of its MIL activities, the Organization has been examining the preparation of curriculum enrichment material for teacher education in order to provide the basis for an early introduction to MIL.

The final area which I wish to mention is the Open Access Initiative (OA) which we have recently launched. It was established on the premise that access to scientific knowledge from developing countries which may either not be published or easily available, needs to become accessible, for the sake of development. Particular emphasis is being given to the availability of scholarly information especially that which emanates from publicly funded research. The underlying concept is that information should be available for everyone, free where possible of licensing and copyright barriers, in order to contribute to sustainable development. This initiative is intended to concentrate on those people in the majority of developing countries who are the least able to pay to obtain information.

OA is not well established in these regions, yet this is where the greatest benefits would accrue from more widespread OA – both in terms of achieving global visibility of their work, and being able to access work published by researchers elsewhere. We are currently seeking to encourage publishers to facilitate this while asking countries/institutions to mandate open access policies. UNESCO will focus on scientific information, as well as on Africa, LDCs, and

SIDS, through work in partnerships. This is especially important to help UNESCO reach knowledge producers and managers in Africa and other developing regions.

These are just a few of the many areas in which UNESCO and IFLA are cooperating in a shared vision to reduce the digital divide that exists within and between countries; a divide that contributes to unequal access and deprivation of the right to knowledge. Our long partnership with IFLA has been mutually beneficial and our shared commitment to improving access to information will lay the foundations for innovative approaches in obtaining and sharing knowledge that promote a lasting basis for human development.

Jānis Kārklīņš  
Assistant Director-General UNESCO  
Communication and Information





# Libraries Driving Access to Knowledge (A2K)

Ellen R. Tise

*IFLA President – 2009-2011*

*Senior Director, Library and Information Services, Stellenbosch University, South Africa*

## Introduction

Many individuals and representatives of organizations have stressed, to me, the importance bringing together a publication that records and explores the roles of information forums and workers, libraries and librarians in driving access to information. In an era such as this when there is an exponential growth of information, access is a critical issue. On numerous occasions at conferences and meetings the view has been expressed that at no other time in the history of information provision has there been such a dire need for libraries to drive access to knowledge and information. The exponential growth of information, fueled by the exploitation of media such as the web and social networking, demands that there be a mediator with the skills and capacity to extract trusted and authentic information. Such an intermediary also has to be able to deliver reliable and authoritative information to the information-seeking community as well as the new knowledge and information that has been created in recent times. It is this new knowledge and information helps to stimulate the growth and development of societies and the world.

Libraries and information forums function in a paradoxical environment. On the one hand there is globally an unprecedented growth of information; and, on the other, for many there is a dearth of information as a consequence of the many barriers that hinder access to information. IFLA and the library world are cognizant that unfettered access to information is an essential in facilitating political stability to the world, quickening the pace of recovery from the internationally experienced recession, eradicating poverty, decreasing disease and ensuring a green environment. At its core, access to information ensures a just society for all. As a consequence, the creation of the Presidential Theme for 2009-2011 took these and other issues into account so that whatever the final decision, the theme would not only be relevant to the personal goals of the President but also one which would assist libraries and librarians to contribute significantly to addressing world issues as well as capture one of the key activities of the profession and its members. The final choice of theme for my Presidency during 2009-2011 was – *Libraries Driving Access to Knowledge*.

This introductory chapter provides reflections on some of the key issues that were examined during my term as IFLA President (2009-2011). They are anchored in my Presidential theme and address the critical role that information workers, librarians and their respective institutions play in driving access to knowledge and information. The chapter represents the thinking that guided the conceptualization of my theme as well as the key points that emerged during my tenure as President in relation to thoughts and comments shared by colleagues and others with whom I interacted during my term. Early opportunities to explore my theme – *Libraries Driving Access to Knowledge* – with a wide cross-section of persons associated with our profession were at the President-elect's Brain Storming Sessions at IFLA 74 and 75 which were held in Quebec City and Milan in August 2008 and 2009 respectively. In addition to sharing issues explored at those meetings and other events, this introductory chapter presents further refinements, views and perceptions on the theme as they emerged during my tenure as leader of our august association. Also contributing to this paper are a selection of thoughts from my acceptance speech at the 75<sup>th</sup> IFLA Congress in Milan 2009, my opening speech in Gothenburg 2010 and other presentations/reflections on my theme made during my Presidency. Two critical concepts, namely, knowledge and access underpin any consideration of access to knowledge. Thus, it is important to explore these concepts and my thinking about them as these will help to provide a background against which the subsequent chapters in this book can be considered. It is fully acknowledged that there may be differing and alternative views on these concepts. The following is provided as a backdrop against which the other contributions to this book can be placed.

## Defining Knowledge

In exploring the concept of knowledge, Harris (1996) draws distinction between the concepts of data, information and knowledge. When accumulated and processed, data, the lowest form of information, becomes information. While information has substance and purpose on its own it does not have meaning. For information to acquire meaning and representation it has to be combined with context and lived experience. It is through the injection of the human factor into information that this body of data becomes knowledge. Access to information is therefore an imperative for the development and use of knowledge. Knowledge generation is essential to the process of development. Knowledge is functional at many levels: it can alleviate poverty and deprivation; it serves as a springboard for innovation and change; and, it is a catalyst for national development and personal achievements.

Libraries as primary gateways to information are therefore important vehicles for the acquisition of knowledge. As knowledge institutions, libraries pro-

vide spaces for information-sharing and learning for all ages, genders, ethnicities and socio-economic groups regardless of their information/knowledge needs. Further, libraries facilitate access to information thereby providing the means through which new knowledge is developed and made available to all.

Knowledge is foundational to all spheres of life. An interrogation of this concept reveals that knowledge is critical for the growth of society and that knowledge is produced when information is absorbed, processed and internalized by individuals. Libraries, as critical providers of information have an important role to play in the creation of new knowledge. They are vital institutions for the creation, development and sustainability of knowledge societies. Information is a key input into the creation and maturation of knowledge, therefore, a significant criterion for a growing and healthy society is access to information. The library, as a major source for/conduit to information, serves a wide spectrum of information-seekers. Libraries are not only vital but also central to the facilitation of knowledge generation.

The concepts of knowledge and information are so intertwined that they could and are used interchangeably. Complementing the concepts of *knowledge* and *information* is the concept of *access* in the process of information provision: libraries drive access to knowledge and information. All knowledge and information is inconsequential if there is no access. And, as indicated at numerous meetings, information is the one commodity that grows in value with use. Therefore, access to knowledge and information is critical in creating new knowledge and information as part of the quest to become more innovative and to find solutions to issues that hinder growth and development.

## Defining Access

Drake (1984) says that access to information is a complex concept:

“As the term is used in our profession, we usually mean making information available. In most instances, however, we do not make information available; we make books available and leave the user to find needed information in our stock of printed material.”

This definition has evolved as libraries are making more information available in electronic and other formats. Changes in formats collected have progressively reduced the volume of printed materials found in libraries and other information-providing institutions. This evolution however must remain grounded in the fundamental principle of access to information. In an era of information explosion, it is unwise not to identify and dismantle the barriers that hinder to access to information given that restrictive access is a violation of the United Nations (UN) Universal Declaration of Human Rights. Indeed, recent

events in certain parts of the world demonstrate that while regimes may construct barriers to information and that these are “accepted” for some time by some, the youth will find creative ways of sharing information despite known negative repercussions.

The concept of freedom of access to information is perhaps most clearly outlined in Article 19 of the UN Universal Declaration of Human Rights. According to this, all human beings have the fundamental right to have access to all expressions of knowledge, creativity and intellectual activity, and to express their thoughts in public (Hamilton and Pors 2003). The IFLA Free Access to Information and Freedom of Expression (IFLA/FAIFE 2002) website posits the view that the right of access to information and ideas is vital for all societies. FAIFE argues that if citizens of the world are to participate and make informed choices they must have unrestricted access to information and be able to generate knowledge. An informed and knowledgeable citizenry adds value to the prosperity and development of a society. This argument is corroborated by Hamilton and Pors (2003) who advance that:

“access to information allows citizens to participate in the democratic process and make informed choices that will lead to the development of society. If an individual’s freedom of access to information or freedom of expression is impeded, information flow suffers and democratic processes are set back.”

However, one must recognize that although there may be the will, access could be impeded by a range of factors. It has also been argued by Hamilton and Pors (2003) that libraries, in the main, make every attempt to provide access to the widest range of resources possible. This desire however may be inhibited by factors such as budget constraints, lack of technological capacity, selector bias and legislation imposed by government.

## Role of Libraries in Driving Access to Knowledge

Gothenburg provided me with an opportunity to reiterate what I said in Milan, *viz*:

“Without knowledge all effort is nought. Without sound, accurate and reliable knowledge the decisions and actions we and others take can have disastrous consequences for a very long time. Knowledge is the key to success” (Tise 2010).

Further, access to knowledge is critical for the equal growth of all communities, societies, cultures and nations. Libraries, as essential providers of infor-

mation have an important role to play in the creation of new knowledge. As a major source for information, libraries serve a wide spectrum of information seekers, who are not only critical but central to the facilitation of knowledge generation. Equal access to knowledge serves to ensure the stability of nations and the assurance of world peace.

Access to knowledge however is not dependent free. To paraphrase Prof. Jan Hoithues of Germany, Gutenberg's invention of print with moveable letters caused books and printed media to become the core of information and its transmission. This made the Western concepts of literacy and numeracy key attributes of power and empowerment. The ability to produce and preserve the printed word is therefore a key attribute of power and empowerment. The capacity to discern the veracity of the printed word has become a core skill. In current times the printed word can no longer be taken as the only literacy of note and/or merit. Literacy skills have transitioned from reading, writing and understanding a formal scripted code to being able to distinguish between bathroom-writing as against that found in some of the widely available electronic resources which provide reputable information. Unfortunately, in today's world, electronically-based information is often not free and consequently not universally available. In order to understand the diversity of information sources, librarians therefore have had to develop several literacies to survive in today's marketplace. The commodification of information is one of the key challenges that libraries face as they seek to provide access to knowledge.

The creation of and access to knowledge is increasingly becoming dependent on the existence of technology, its utilization and an ever-advancing thirst for new technological developments to make knowledge more widely available on an anytime, anywhere and just-in-time basis. This growing dependence on technology has led to an economic value being placed on knowledge. Access to knowledge, as a consequence, is increasingly associated with fees attached to database usage, the reproduction of images as well as royalties for the use of sound bites or complete musical works. Thus, the payment of fees for access to information is a growing trend. No one can question the right of publishers to recover costs, however demands for payment introduces another barrier to information which needs to be overcome so as to facilitate access to knowledge. While knowledge is in and of itself an extremely valuable commodity, there are those who view knowledge as being even more valuable than precious metals such as gold, diamonds and platinum. Knowledge has become quantifiable in terms of its economic worth. Knowledge is the only commodity that increases in value with use – there are no diminishing returns when knowledge is used. In fact the use of existing knowledge often leads to the creation of new knowledge thereby enhancing the inherent value of this commodity.

It is beyond debate that libraries and librarians play a critical role in providing access to knowledge. Not only are libraries critical conduits of informa-

tion and knowledge but by storing resources of knowledge they preserve knowledge. Further, as librarians enhance access opportunities, knowledge becomes more universally available. The growing use and incorporation of technology to access knowledge enables it to become more available to this and future generations. By playing a critical role in such developments, libraries and librarians become central to the creation and sustainability of the information society. By facilitating the spread information and making it more easily accessible, libraries and librarians are contributing to both societal and individual development.

The ubiquitous existence of digital products to provide access to information in many developed countries makes information much more readily available in many societies. Indeed, in those societies, there is an ever increasing dependence on technology to deliver and preserve knowledge and information. It would be safe to assume that with the widespread availability of technology in those societies, access to information would become a “non-issue”. However, there are certain realities that prevail in both developing and developed worlds. In the developed world while there are information-deprived communities, one of the deprivations being limited access to technology and its supporting infrastructure. The possibilities of such persons becoming connected are considerably more likely than for those who live in developing countries and/or emerging economies. I advance this position because in the developed world the technology already exists and the cost of hardware and software is considerably less than that which persons in developing countries are required to pay. The major requirement needed to connect such communities is proactive measures on the part of the relevant public and private entities.

In the developing world, the scenario is much more difficult to transcend as deprivation in a range of areas is endemic to such societies. In terms of accessing technologically-driven information, at best the technological infrastructure is weak and in many instances it is non-existent in many developing countries. Further, much of the software and hardware required for technologically-driven information are not products of developing world communities. In addition, the cost of hardware, software and other infrastructural supports is considerably higher in developing countries, a particular challenge for those countries for which access to hard currency/ies is problematic. Thus, the pre-occupation and assumption that a technological solution will be an immediate answer to hindrances to information has several inherent challenges. While it may seem paradoxical, one of the answers to increasing access to knowledge in developing countries is the use of ICTs. Mathur and Ambani (2005) are very convincing when they state:

“the application of ICT solutions for ... developing countries opens (sic) up a vast range of possibilities. Giving an opportunity to the majority of the inhabitants living in rural areas to cross the digital divide to ob-

tain access to information resources and services provided by ICT is the next revolution waiting to happen.”

As technology develops, it is reasonable to assume, that there will be advances which will enable developing countries to make quantum leaps in terms of technological generations so that there will be a technological platform which will enable persons and institutions in such locations to have the level of access at reasonable prices without requiring large investments in facilitating infrastructure.

Africa is noted for its poor landline telephone infrastructure. This challenge has been circumvented through the widespread use of cellular phone technology. On the other hand, India has circumvented its poor rural ICT infrastructure by developing “a technology specifically for the rural user at a low cost” (Mathur and Ambani 2005). Given these alternatives it is possible that knowledge and information could, through the installation of relevant technology, be made available to “deprived communities”. Unfortunately, the use of alternative technologies is not yet widespread throughout the developing world. If such technology were to be operationalized it would enable libraries to serve as a link between available information and the user communities at many levels. This strategy would also help to make libraries more embedded in their communities and their services more orientated to the needs of their users. Godlee et al. (2004) indicated however that it is important for the library to provide the right information at the right time thereby facilitating access to knowledge. This argument is corroborated by Feather (2006) who says that the problem is to select and evaluate information rather than to gain access and that the professionals bring their unique body of knowledge to the evaluation process.

Feather (2006), Mathur and Ambani (2005) and Godlee et al. (2004) opine that libraries are critically important in driving access to knowledge. Libraries must make every effort to dismantle all barriers that exist between users and the information and knowledge contained in their collections (in the broadest sense possible). Libraries must start opening their collections and services to all communities, especially to communities that have been and continue to be deprived of the world’s knowledge.

Lor and Britz (2007) assert that “modern ICTs have created many opportunities for civil society, opening up space for dialogue, participation and creativity.” Libraries have all of the above capacities and many others. In addition, they have a long history of developing networks to provide information to their clients. Libraries, with all that they have “accumulated over the centuries”, combined with ICTs offer a total knowledge package for the Information Society. One of the noted achievements of many libraries over the years is the creation of positive relationships with users. Nurturing and spreading such contacts



throughout the library world are steps that would redound to the benefits of libraries as they seek to provide access to knowledge to the peoples of the world.

The next section of this chapter deals with issues that were discussed at specific meetings, namely, the Presidential Brainstorming Sessions in Quebec City and Milan, my acceptance speech in Milan, an ILFA satellite conference in Gothenburg and my address at the general conference and annual general meeting in that city.

## Brainstorming Sessions: Quebec City and Milan

In Quebec City the following emerged as the key enablers/aspects for access to knowledge through/by libraries and librarians:

- **Libraries and librarians must become more user-oriented by:**
  - Bringing libraries and their resources to the users;
  - Empowering users through information literacy, social networking, etc.;
  - Enabling access to information (a paradigm shift from a custodial approach); and by
  - Facilitating the full participation of all citizens in societal activities.
- **Libraries and librarians must become active in advocacy by actively promoting libraries:**
  - Including the perspective of the users in their operations;
  - Communicating effectively with stakeholders on library/society matters;
  - Driving library policy/ies;
  - Facilitating and supporting open access for all;
  - Promoting a broader library agenda with key partners/stakeholders; and by
  - Becoming innovative information agents.
- **Libraries and librarians must create partnerships and foster opportunities for convergences with:**
  - Other societal stakeholders such as health workers, teachers, environmentalists, etc.;
  - Commercial/private enterprises; and
  - With other cultural/knowledge institutions.
- **In addition participants determined that library as space and place should foster:**
  - Information for ALL;

- Opportunities/gateways for social inclusion;
- “Wow” environments and experiences;
- Content in formats that appeal to young people and other discrete library user groups;
- Community knowledge space/s;
- Libraries as safe and trusted public spaces;
- Multicultural communities having their voices heard; and that they should serve as
- Gate-openers to information.

One of the comments made at the President-elect’s brainstorming session at the Milan conference which cannot be repeated too often, is that as professional librarians have been and are very good at talking to and among themselves. However, librarians have not been as successful in talking to and with others, particularly those who have the power to help them integrate and embed libraries in spaces of decision-making at the highest levels. While there are those who believe that libraries do not get votes and hence do not require support, if we, as information professionals, demonstrate that through libraries and librarians there can be quantitative and qualitative improvements in health issues, entrepreneurial skills development, environmental protection, poverty alleviation, a reduction in illiteracy, the development of a respect for diversity and all of the other issues that politicians and others in decision-making roles hold dear – that not only will librarians be providing access to knowledge, but they will also be able to demonstrate that libraries and librarians are key to the political process and national development.

The explorations of the theme and opinions expressed in both Quebec City and Milan helped to fashion the acceptance speech that I delivered in Milan in August 2009. These views were also further developed at the IFLA conference in Gothenburg and also in several speeches I made during my term as IFLA President. Next is a consideration of some of the key presentations and points made on my theme during the years 2009-2011.

## Acceptance Speech – Milan 2009

While my Presidential theme – *Libraries Driving Access to Knowledge* – was created some time ago, its relevancy to today’s information age will continue long after I have left office. Further, it is a concept that is all embracing: it enables the profession to ensure that libraries remain at the heart of every thought, word and deed that occurs across, within and throughout our societies and communities; and, it can help anchor the work of the profession going forward. Without knowledge all effort is naught. Without sound, accurate and reliable knowledge, decisions and actions that we or others take can have dis-

astrous consequential effects for a very long time. Knowledge is the key to success. Knowledge and information professionals are committed to the belief that they have an obligation to ensure that they provide those who use their services with the knowledge and information that enables them to make the right decision, every time, all the time. Associated with this is the ethical responsibility that librarians must, on every occasion, provide equity in terms of access to information. Equity of access to information is one of IFLA's core values.

Access to information for all on equal terms is an unchallengeable human right. Equitable access for all pivots on the fundamental belief that all people are equal, all are free. An unalienable right of access to information and knowledge is the only way to ensure the development of all. Thus, there must be no short cuts, no settling for less in the provision of access to information.

One of the most important ways of achieving this human right, access to information, is for libraries and librarians to become fully engaged in their communities and societies. The activities and actions of the library and information services (LIS) sector are foundational to the existence of sustainable communities, economic growth and healthy societies. The result of our deeds, actions and services are vital to personal opportunities and well-being. The work of LIS professionals adds value to both individuals and society at large by providing citizens with access to knowledge and information. Not only must librarians passionately and powerfully advocate for the embedding of libraries and information services in all societies, but they must also seek opportunities which enable them to put libraries and library services at the forefront of all community and societal efforts. By this level of engagement librarians will be helping to make libraries drive access to knowledge. The role of the LIS sector in promoting democratic values and democratizing the search for knowledge cannot be underestimated. The role of librarians as information activists can and must be positive as this is the only way that they, as LIS professionals, can optimize the full potential of their profession and that for which it stands.

One of the things many librarians have not fully grasped is the strength that is inherent in their profession or the powerful impact that they can each have as an LIS professional. I am of the view that many librarians underestimate their potential and the value that they can and must contribute to their societies. We must turn this perception on its head!

While the theme of my Presidency refers to libraries, implicit and inherent in the phrase is the pivotal role that we as library and information professionals must and can play in making knowledge accessible to all. It is an imperative that librarians unreservedly have a commitment to and a concern for the public good which must encompass a respect for diversity and espouses the principle of equality and human rights for all. The members of IFLA are but a microcosm of the world's reality – a diversity which is in itself one of IFLA's

strengths. It would be remiss of me however not to acknowledge that embedded in this diversity are uneven opportunities to provide access to knowledge. Not all librarians practice in communities and societies where the latest technology is available at one's finger tips, where libraries are reasonably or abundantly resourced, or where reliable electrical and broad band services are given. Nevertheless, despite these constraints, it is still necessary to provide access to knowledge for all. Librarians practicing in such environments need support and assistance. Librarians should therefore work together and offer guidance and mentorship to professionals whose working realities are not privileged as others. It is through such acts that librarians will help to make the world a better place and also to realize one of the pillars of IFLA – Information for All – which is also an underlying concept of the theme *Libraries Driving Access to Knowledge*. Further, the empowerment of our users is inextricably intertwined in *Libraries Driving Access to Knowledge*. The creation and use of knowledge does not occur in a vacuum – people use knowledge for a variety of reasons – to learn, to grow, to make decisions and for recreational and entertainment purposes, in fact the list is limitless. The crucial role that libraries play in the empowerment of their users is that they (librarians) are the facilitating agencies to access the information they need. One of the ways in which libraries empower their users is that they, the users, are assured that they are accessing information with the knowledge that the information they receive is authentic and trustworthy. Libraries provide users with a considerable level of comfort, placing themselves in a strong position as a social service of the highest order.

There is another aspect of my theme to which needs interrogation namely, the role of libraries and librarians as creators of knowledge. While libraries have traditionally been spaces and places where one can access knowledge that is already available, it is only recently that librarians have begun to recognize their potential in the knowledge creation process. When a young entrepreneur visits a library as part of his or her investigation for the development of a new product, process or service, seldom is the critical role that the library and librarian played in the resultant end product acknowledged. However, without the information gleaned from the library visit or visits and often the extensive assistance of a librarian or two, the positive outcome of the entrepreneur's work could have been otherwise. But the knowledge creation process is not only with regard to the work of others. When librarians package and bundle existing information in such a way that an information-seeker is able to have at their fingertips exactly what they need to make a reasoned decision or further their research, the efforts of librarians are not confined to only providing access to knowledge and information, by their actions librarians have become knowledge creators. In such an instance not only are they driving access to knowledge, they are creators of knowledge and thus become part of the knowl-

edge-building process, one of the underpinnings of the knowledge society of which librarians are an integral dimension.

## Pre-Conference on Open Access (OA): Gothenburg 2010

Having subscribed to the concept of an Information Society, libraries have assumed the responsibility of opening access to knowledge and information via the open access (OA) movement. Libraries are at the coal face of the OA movement and they have been working feverishly to ensure the success of the movement. IFLA, representing libraries worldwide, has signed the Berlin Declaration on Open Access. Further, IFLA is in the midst of developing a White Paper on OA.

At the pre-conference meeting in Gothenburg on OA, it was recognized that the warehouse of information role of the traditional library is rapidly being transformed into a facilitator of information. As such, the library serves as a hub for the conduits that link the vast repositories of information that are now available in digital format. Unfortunately, despite this exponential growth of trusted and relevant digital information, there is a scarcity of information for many as access to this information is protected by, what for some, are unaffordable subscription costs. Researchers spend an inordinate amount of time conducting and recording their research only to realize that key information is locked away behind prohibitive access fees. For researchers located in developing countries, this is especially a tragedy as they can ill-afford to pay these fees despite their desperate need for this researched information. Often such information is the gateway to solving the many of the problems that retard the development of their countries and societal advancement. That some of these barriers impact on access to indigenous knowledge is a particular tragedy for persons based in developing countries, given that much of this knowledge originates from such regions.

Lor (2007) advances reasons why the library is obliged to remove barriers that impede access to knowledge and information. He indicates that the rise of the OA movement results from the convergence of an economic crisis, a moral crisis, and an enabling technology. The economic problem is one of spiraling prices. The annual cancellation of journal subscriptions and drastic cut backs on monograph purchases are becoming the norm given economic realities. Only journal and monograph titles considered essential are acquired in order to support a basic service. With regard to developing countries in sub-Saharan Africa, in Lor's view, the situation is catastrophic as many large universities hold only a few hundred serial titles, many of which are received free of charge.

The second factor which is morally grounded has two dimensions. The first is an inability of researchers in developing countries to gain access to the world's scholarship especially in the sciences where cutting-edge information

is critical to one's work. The continued reference to the "digital divide" is not restricted to technology issues. It also has associated with a divide that exists between what scholars know and existing knowledge. This can be termed content or knowledge divide. The second aspect of this factor is a growing sense that the relationship between authors, journal publishers and users is out of balance and inequitable. There is a willingness by authors to submit their research free of charge and the willingness of editors and referees to peer-review the research also without the receipt of compensation. Scholars publish their research in peer-reviewed journals for professional gain, exposure and the sharing of knowledge. On the other hand, publishers receive considerable sums of money from journal subscriptions and the advertisements which appear in these publications. None of the profits are shared with contributors even though their work, to a large extent, has been the cause of a journal's standing within academia and other communities.

The third factor is the advent of the Internet. This digital technology is used both to control and to enhance access. Digital technology seems at first sight to offer untold opportunities for developing countries to catapult the digital divide and leapfrog technological generations in order to utilize technologies of the day. In reality however, the high cost of establishing a digital platform, continuous operating costs, ongoing access fees and a demand to keep abreast with technological advances place inordinate burdens on developing countries and deprived communities wishing to make use of digitally available information. The well espoused costs savings only occur after an institution has been able to provide the initial capital and recurrent outlay that technology demands. In addition, if services such as a stable electrical service and broad band connectivity are not available, national institutions seeking to use ICT as an access to knowledge solution are hampered due to the lack of the requisite infrastructural supports.

While these are realities, nevertheless IFLA is committed to OA as a solution to providing access to information. Below is a discussion on IFLA's position with regard to OA.

## IFLA's Commitment to OA

Given the potential of OA to drive access to knowledge, IFLA has drafted and signed the *IFLA Statement on Open Access to Scholarly Literature and Research Documentation*. This statement advances that IFLA is committed to ensuring the widest possible access to information for all people and acknowledges that the discovery, contention, elaboration and application of research in all fields will enhance progress, sustainability and human well-being. The clauses below are extracted from that statement:

IFLA acknowledges that the discovery, contention, elaboration and application of research in all fields will enhance progress, sustainability and human well being. Peer reviewed scholarly literature is a vital element in the processes of research and scholarship. It is supported by a range of research documentation, which includes pre-prints, technical reports and records of research data.

IFLA declares that the world-wide network of library and information services provides access to past, present and future scholarly literature and research documentation; ensures its preservation; assists users in discovery and use; and offers educational programs to enable users to develop lifelong literacies.

IFLA affirms that comprehensive open access to scholarly literature and research documentation is vital to the understanding of our world and to the identification of solutions to global challenges and particularly the reduction of information inequality. Open access guarantees the integrity of the system of scholarly communication by ensuring that all research and scholarship will be available in perpetuity for unrestricted examination and, where relevant, elaboration or refutation.

IFLA recognizes the important roles played by all involved in the recording and dissemination of research, including authors, editors, publishers, libraries and institutions, and advocates the adoption of the following open access principles in order to ensure the widest possible availability of scholarly literature and research documentation:

1. Acknowledgment and defense of the moral rights of authors, especially the rights of attribution and integrity.
2. Adoption of effective peer review processes to assure the quality of scholarly literature irrespective of mode of publication.
3. Resolute opposition to governmental, commercial or institutional censorship of the publications deriving from research and scholarship.
4. Succession to the public domain of all scholarly literature and research documentation at the expiration of the limited period of copyright protection provided by law, which period should be limited to a reasonable time, and the exercise of fair use provisions, unhindered by technological or other constraints, to ensure ready access by researchers and the general public during the period of protection.
5. Implementation of measures to overcome information inequality by enabling both publication of quality assured scholarly literature and

research documentation by researchers and scholars who may be dis-advantaged, and also ensuring effective and affordable access for the peoples of developing nations and all who experience disadvantage including the disabled.

6. Support for collaborative initiatives to develop sustainable open access publishing models and facilities including encouragement, such as the removal of contractual obstacles, for authors to make scholarly literature and research documentation available without charge.
7. Implementation of legal, contractual and technical mechanisms to ensure the preservation and perpetual availability, usability and authenticity of all scholarly literature and research documentation (IFLA 2004).

All of these developments, regardless of their source, point to a new and changed role for libraries and librarians. The next section explores some of the issues arising from these new paradigms and the impact they have made/will make on the profession and its professionals.

## Libraries as Publishers

Lor (2007) advances that an old tradition, a new technology and a new role have converged to make possible an unprecedented public good. The old tradition is the willingness of scientists and scholars to publish their research in scholarly journals without payment, for the sake of inquiry and knowledge. The new technology is the Internet. The new role is that of the libraries and librarians as publishers of scholarly information for the public good. Librarians and libraries operating in a new role as publisher remove the subscription barriers to literature. Assuming the role of publisher, libraries and librarians will help to accelerate research, enrich education and share the learning of the rich with the poor and the poor with the rich. This role will help to expand the group of scholars who will have access to the information and lay the foundation for uniting humanity in a common intellectual conversation and quest for knowledge (Lor 2007).

At the core of the OA movement is the distribution of scholarly information. Librarians are strongly advocating that authors publish their research material, for philanthropic reasons, in OA forums that allow for such knowledge to become accessible to those that cannot afford subscription fees.

Research conducted by the Association of Research Libraries (ARL) revealed that several member libraries provide publishing services. There are 371 published peer-reviewed journals by large research libraries. Smaller libraries at institutions not affiliated with ARL have also undertaken publishing ventures. These libraries use a combination of publication tools such as Open



Journal System (OJS) and the Berkeley Electronic Press (bepress). Xia (2009) says that although there are currently no figures on exactly how many academic libraries have been involved in this publishing business, it is safe to say that the number is by no means small.

Discussions of library publishing have concentrated on the applicability, sustainability, and scalability of providing such services by libraries. Advocates and librarians are confident about the applicability. Research has found that scholars have a positive attitude towards cooperating with librarians and they (researchers) are willing to take the responsibility of organizing an editorial process for the quality control of publications. As has traditionally been the case for commercially published scholarly journals peer review is considered a necessary procedure for assessment of articles published in journals with a library/institutional imprint. An easy and guaranteed way for any library to manage a journal seems to be to transfer an existing publication from a commercial publishing operation to joint faculty-librarian management. Such transfers have been undertaken in a federally funded project in Canada. The library's responsibility is to provide hosting services; coordinate a supporting process; and, provide additional services such as permanent URLs, workflow streamlining, mark-up, file generation, and print on demand. While the scholar's role remains to provide high quality content that meets the demands of peer reviewed material.

Expanding on the Canadian experience, Xia (2009) goes on to state that the publishing systems adopted by the libraries with regard to academic journal publishing seem to satisfy all of their constituents. When comparing this form of publishing to lodging materials on institutional repositories, it would seem that the idea of library publishing academic content seems to have been more readily accepted by researchers than lodging with repositories. There is buy-in from those who have served as editors of journals published by traditional presses. From the faculty editors' point of view, the new model of scholarly communication is able to provide many more benefits than the traditional model of publishing: free access for readers (through libraries' Web sites), inexpensive hosting (even though libraries have to pay the hosting costs), and convenient management (through collaboration with other libraries). The ordinary scholar as reader is attracted to this model by its open-access component. It may also be that institutional administrators are pleased with library publishing because it increases the visibility of their institutions.

OA provides a new paradigm for libraries and librarians. It provides unprecedented opportunities for librarians to deliver rich content in the pursuance of a better informed world with access to essential knowledge and information for the generation of new knowledge to create a better world for all.

It is unfortunate that constraints of space do not allow me to share more of my experiences and engagements with you in terms of my Presidential Theme *Libraries Driving Access to Knowledge*. To reiterate, at no time in the history

of information provision has there been a greater need for libraries. The glut of information that is available could have the opposite effect of creating knowledgeable and informed societies. Knowledge and information have the power of being either constructive or destructive. Misinformation is generally associated with destruction; while trusted and authentic information are critical pathways to creating and underpinning knowledgeable and informed societies that can be innovative in their quest for a better world. Libraries play a critical role in providing that trusted and authentic information – they make every endeavor to remove barriers to access to information to the extent that they are now becoming publishers to ensure access to knowledge and information.

## Contributions from Other Authors

While my Presidential Theme may only have the lifespan of my presidency it will live on – libraries cannot afford to doubt their role in driving access to knowledge. Testimony to this obligation is to be found in the chapters that follow that provide empirical research and substantiated argument by leaders in the profession. This book *Libraries Driving Access to Knowledge* addresses *inter alia*, the issue of OA, providing access to indigenous content, opening access through information literacy, improving access to knowledge and information through the redefinition of library spaces.

This compilation of thought provoking contributions adds value to the Presidential Theme of *Libraries Driving Access to Knowledge*. As indicated, libraries are the cornerstone for the growth and development of any nation. Historical knowledge, current knowledge and generation of future knowledge have deep planted roots in the library. The future is unimaginable without the critical link between the libraries and the generation of new knowledge and information.

## References

- Chan, L. and Costa, S. "Participation in the global knowledge commons: challenges and opportunities for research dissemination in developing countries." *New Library World*, 106. 1210/1211 (2005): 141-163.
- van Dijk, J. and Hacker, K. "The digital divide as a complex and dynamic phenomenon." *The Information Society*, 19 (2003): 315-326.
- Drake, M. "User fees: aid or obstacle to access?" *Wilson Library Bulletin*, May (1984): 632-633.
- Feather, J. "The context of change: information professionals and the information profession in an information society." *Health Information and Libraries Journal*, 23 (2006): 3-9

- Godlee, F., et al. "Can we achieve health information for all by 2015?" *Lancet*, 364.9430 (2004): 295-300.
- Hamilton, S. and Pors, N. O. "Freedom to access to information and freedom of expression: the Internet as a tool for global social inclusion." *Library Management*, 24.8/9 (2003): 407-416.
- IFLA. *IFLA Statement on Open Access to Scholarly Literature and Research Documentation*. 2004. <http://archive.ifla.org/V/cdoc/open-access04.html> [Mar. 2011].
- Krasner-Khait, B. "Survivor: The history of the library." *History Magazine*. 2001. [www.history-magazine.com/libraries.html](http://www.history-magazine.com/libraries.html) [Mar. 2011].
- Leaffer, M. *Understanding Copyright Law*. New York: Matthew Bender, 1989.
- Lor, P. "Libraries in times of open access." Academic Publishing in Europe Conference "Innovation & Publishing", Berlin, 23-24 January 2007. *Information Services and Use*, 27 (2007): 193-205. <http://portal.acm.org/citation.cfm?id=1370647> [Mar. 2011].
- Lor, P. J. and Britz, J. J. "Is a knowledge society possible without freedom of access to information?" *Journal of Information Science*, 33.4 (2007): 387-397.
- Masango, C. A. "South African scholars' and commercial publishers' perceptions of open access sources." *Mousaion*, 24.2 (2006): 249-268.
- Mathur, A. and Ambani, D. "ICT and rural societies: opportunities for growth." *International Information and Library Review*, 37 (2005): 345-351.
- Merges, R. P., Menell, P. S. and Lemley, M. A. *Intellectual Property in the New Technological Age*. 2nd ed. New York: Aspen Law and Business, 2000.
- Neacsu, E. D. "Legal scholarship and digital publishing: has anything changed in the way we do legal research?" Gordon, Russell and Chiorazzi, Michael, eds. *Law Library Collection Development in the Digital Age*. New York: Haworth Information Press, 2003.
- Ou, C. "Technology and copyright issues in the academic library: first sale, fair use and the electronic document." *Portal: Libraries and the Academy*, 3.1 (2003): 89-98.
- Peters, T. A. "Was that the Rubicon, Lethe, or Styx we just crossed? Access conditions for e-content." *Library Collections, Acquisitions and Technical Services*, 27 (2003): 215-223.
- Phillips, J., Durie, R. and Karet, I. *Whale on Copyright*. 5th ed. London: Sweet & Maxwell, 1997.
- Schiller, H. I. and Schiller, A. R. "Libraries, public access to information, and commerce." Wasko, V., and Wasko, J., eds. *The Political Economy of Information*. Madison: U of Wisconsin P., 1988.
- Sen, B. "Indigenous knowledge for development: bringing research and practice together." *International Information and Library Review*, 37 (2005): 375-382.
- Xia, J. "Library publishing as a new model of scholarly communication." *Journal of Scholarly Publishing*, 40.4 (2009): 370-383.

## Part One – User-Oriented A2K Actions



# Iceland Goes Digital: Countrywide Access to Electronic Resources

Ingibjörg Steinunn Sverrisdóttir

*National Librarian*

and

Þórdís T. Þórarinsdóttir

*Library Director*

## Introduction

This chapter focuses on the development of Icelandic-wide access to electronic databases, e-journals and also the website [www.hvar.is](http://www.hvar.is) (meaning *where.is* ["is" being the national domain for Iceland]). The project, The Icelandic Consortium for Electronic Subscriptions (ICES) (Landsaðgangur að rafrænum gagnasöfnum og tímaritum) is under the auspices of the Ministry of Education, Science and Culture (hereafter Ministry of Education or Ministry) (Mennta- og menningarmálaráðuneytið) in cooperation with Icelandic libraries, information centres and research institutions. It is operated by the National and University Library of Iceland (NULI) based on a service contract. No laws or regulations apply to the project and it is not an independent legal entity. The idea was originally conceived by librarians and their associations. The Icelandic Government seized on the opportunity presented by these professionals and their organizations as it realized that the project fitted ideally with the concept of the Government's new information strategy. Since 1996, the Icelandic Government has been pursuing a progressive and ambitious information policy. The first initiative was entitled *The Icelandic Government's Vision of the Information Society* (1996). Its chief objective being that:

"Iceland shall be in the forefront of the world's nations in the utilization of information technology in the service of improved human existence and increased prosperity."

Country-wide access is based on IP-recognition (Internet Protocol) and extends to every computer in the country but the end-user has to connect to the Internet through an Icelandic local Internet Service Provider. Citizens and residents can access material wherever they are and whenever they wish, as long as there is a computer and an Internet connection. Users can access the

material directly from publisher's websites or through the website, <www.hvar.is>.

The ICES has been defined as a basic information source and it is a vital part of library services in Iceland. From 2009, the ICES has been defined as a part of the research infrastructure of the country according to the Science and Technology Policy of Iceland (Building on Solid Foundations ... [2009]). Library personnel all over the country use the ICES and they introduce and promote it to researchers, students and anyone who has a need for or an interest in using the resources available at <www.hvar.is>. Before the project started some universities and health libraries subscribed to specialized e-journal packages or databases. Many of those subscriptions have continued and in some cases small consortia have been developed but access is limited to the library or institutional premises. Information on these consortia is available at <www.hvar.is>. Also available on this site are links to free Icelandic quality information websites.

The impact of the ICES on the library landscape and on research and the scholarly community in Iceland, its current status and future prospects are explored in this chapter. At the end of 2010, the consortium subscribed to more than 14,500 full text e-journals, the abstracts of 8,000 journals, 12 databases, text from 10,000 analytical reports and 6,000 full text e-books. To place the project in perspective background information on Iceland, its educational system, the research environment and the library network are also provided.



Figure 1: The logo of www.hvar.is

## Methodology

Research methodology is based on literature review. Qualitative research methods are used in reviewing and analyzing literature about the ICES, information from the ICES and its website <www.hvar.is>. The study is based on primary and secondary resources. Among the range of sources consulted were laws, regulations, research articles, reports, news, press releases, news articles, summary reviews, contracts, usage statistics, documents from the NULI and the Ministry of Education. By analyzing the literature, the main functions of the ICES were identified as well as its impact on the Icelandic society.

The literature referred to is mostly in Icelandic but English resources were consulted wherever possible. The majority of articles are partially summary reviews where the progress of the project is described and the advantages of

access to the material are discussed. To date, limited research has been done on the ICES. Before countrywide access was initiated, Erna G. Árnadóttir (2001) did a survey on journal subscriptions in Icelandic university and research libraries. The results were used as a prerequisite for negotiations and contracts at the beginning of the project. Þóra Gylfadóttir and Þórný Hlynsdóttir (2006) studied the relationship between increased access to databases and e-journals and interlibrary loans (ILL) in Iceland. The study covers the years 2000-2005 and the results showed that the demand for ILL in NULI had decreased and changed during the period under consideration. Ingibjörg Steinunn Sverrisdóttir (2006) did a case study of the development of the ICES as an entity and made some predictions on the next steps in its development and future prospects of the consortium. Further, Pálína Héðinsdóttir (2008) studied the impact of the ICES and other electronic materials on academic libraries and information centers mostly in the field of natural sciences.

## Environmental factors

This chapter focuses on the environmental factors which impact on the ICES. The main attributes of the ICES is the small population of the country, a well-functioning educational system, a high demand for scientific material in foreign languages and a cooperative library system.

## Icelandic Society

Iceland is a large island, 103,000 km<sup>2</sup> or 39,000 mi<sup>2</sup> situated in the northern region of the Atlantic Ocean, just below the Arctic Circle. The country is of recent volcanic origin. Three quarters of its surface is wasteland: glaciers, lakes and lava deserts. The total population on July 1, 2010 was 318,006 with a population density of little more than three persons per square kilometer. Iceland is thus a sparsely populated country, with its inhabited areas being located along the indented coastline. Around 65% of the population lives in the capital Reykjavik and its neighboring towns.

For most of its history Iceland was settled by Norway. The year 874 is taken as a starting point of the island's settlement and 930 for the completion of settlement, when the Icelanders founded a Commonwealth and a general assembly or Parliament (Alþingi) in Þingvellir. The Icelandic Commonwealth lasted for nearly three and a half centuries, until 1262, when the nation came under Norwegian sovereignty. Late in the fourteenth century the Danes took control of Norway and of Iceland with the result that they were under Danish sovereignty until 1918, when Iceland became a completely independent state united with Denmark solely by the monarchy and common foreign policy. In





Figure 2: Iceland

1944, the modern Alþingi established a republic, severing all formal ties with Denmark. Since then Iceland has been a republic with a president elected for four years by plebiscite; a parliament (63 members) is also elected for four years. A cabinet, led by the Prime Minister, wields executive power.

Icelandic is the national language of the country. It has remained almost unchanged for centuries and it is a unique language. The fact that such a small, relatively highly developed society like Iceland has its own language causes unique problems for the people who live there, especially professionals. Knowledge of foreign languages is required in order to keep abreast of new developments in one's chosen field and beyond. Therefore, strong emphasis is put on foreign languages in the educational system and foreign languages are compulsory in elementary schools.

To a large extent Icelandic people owe their existence as an independent nation to their deep-rooted literary culture and ancient writing tradition. Christianity was accepted by the Alþingi in 1000 and with it came Latin books, the sacred writing of the Catholic Church and the traditions of reading and writing. Nevertheless, the laws, written around 1100, are believed to represent the first works written in Icelandic. Subsequent to that large-scale literary activity began. The Eddas, the Sagas of Icelanders and the Sagas of the Kings are the most famous of these genres. The monasteries were the main centers of manuscript and book production (the first founded in 1133). Printing came to Iceland shortly after 1530. In 1550, the Reformation became a part of the social landscape of the country. Printing was for centuries under the monopoly of the Bishops, with the result that little of the ancient lay literature was printed. The Bible is one of the earliest books translated into Icelandic. The New Testament

was the first book to be published in Icelandic (1540) and the complete Bible in 1584. To have the Bible in the vernacular was important in preserving the language along with the tradition of reading the Icelandic Sagas aloud in households during the long winter evenings.

For many centuries Iceland was a poor peasant society and a Danish colony. During the Second World War the country was occupied by the British (May 1940) and in the summer of 1941 the United States took over the defense of Iceland. The occupation was a period of high employment leading to rapid, radical and irreversible changes to life in Iceland. It was the beginning of a new era in the country.

Today, all Icelanders have access to a computer with an Internet connection, either at home, at work, at school or in a library. More than 90% of Icelandic households have an Internet connection (Statistics Iceland 2010). Icelandic libraries and information centers have developed rapidly during the last decades. Every library is automated and has public access to the Internet.

During the last decade, there have also been changes in Icelandic society due to the many international immigrants who now reside in the country. The society can now be considered multicultural with a growing demand for resources in languages other than Icelandic. At the beginning of 2009, immigrants in Iceland accounted for 9% of the population, compared to 2% in 1996 (Landshagir 2009).

The living standard in Iceland is among the highest in the world, with extensive social security, health service and free education at all levels. This is now endangered because the country was severely hit by a bank crisis in October 2008. Among the consequences of this crisis were increased unemployment and the government cutting the budgets for public services entities, such as schools, health services and cultural institutions. Further, people have been emigrating from Iceland and between the years 2008 and 2009 there has been a population decrease of 0.54% (Statistics Iceland 2010).

## The Icelandic Educational System

All education in Iceland is under the jurisdiction of the Ministry of Education but the Alþingi (the Icelandic Parliament) is legally and politically responsible for the educational system and determines its basic objectives and administrative framework (Eurydice National Summary Sheets 2008).

The educational system differs in its organization from the educational system in Europe and the United States. It is divided into four levels (Ministry of Education 2002):

- Kindergarten (leikskóli). Pre-school level up to age 6 according to the Pre-school Act (Lög um leikskóla, 90/2008).

- Primary School (grunnskóli). Primary and lower secondary level in a single structure. A compulsory level for 6-16 year olds according to the Primary School Act (Lög um grunnskóla, 91/2008).
- Secondary School (framhaldsskóli). Upper-Secondary level from 16-20 years of age according to the Upper Secondary School Act (Lög um framhaldsskóla, 92/2008).
- Tertiary Education. University (háskóli). Higher education level from age 20 according to the Universities Act (Lög um háskóla, 63/2006).

### Primary Education

Education is mandatory for children and adolescents between the ages of six and sixteen. Compulsory education is organized into a single structure system and is free of charge (Compulsory Schools 2009). That means that primary education and lower secondary education are parts of the same school level and are usually within the same premises. There are no admission requirements as all children enter school at the age of six. The enrolment rate is thus 100%. Primary education since 1976 is exclusively funded by the local governments.

### Secondary Education

The Upper Secondary School Act states:

Any individual who has completed compulsory education, has had equivalent basic education or has reached the age of 16 is entitled to enroll in upper secondary school.

The period of time allotted for secondary education varies, but usually it lasts for about four years. There are two types of upper secondary schools, general academic schools and vocational schools located all over the country. Usually students at this level are between 16-20 years old. In recent years, over 90% of students completing compulsory education have entered secondary schools directly after finishing compulsory education (Landshagir 2009). The number of students in secondary education has increased rapidly over the last few decades. Registered students in the autumn of 2009 were 9.4% of the population (Statistics Iceland 2010b). Some secondary schools also offer education via distance and blended programs.

### Tertiary Education

In recent years there has been a significant rise in the number of students in higher education programs. More and more people in Iceland are seeking university degrees. Currently there are seven universities or higher education in-

stitutions in Iceland. The universities vary greatly in size and funding but all are supported by the Government. The University of Iceland is the biggest and is defined as a research university, offering PhD programs. Two other universities in the country also offer PhD. programs. The University of Iceland also operates seven small research and study centres (Háskólasetur) in rural areas. These are venues that facilitate the university's collaboration with local authorities, institutions, businesses, associations and individuals (Fræðasetur 2010). The availability of university education courses has grown, especially at the master's and doctoral levels. University students account for about 5.7% of the population of which 62.2% are women. Doctoral students constitute about 0.1% of the population (Statistics Iceland 2010). Another favorable development in tertiary level education has been the establishment of distance learning programs.

As a consequence of the impact of the bank crisis on the country, the Ministry of Education has recently formulated a policy leading to a formal unified network for the four public universities. The organization and division of teaching and research in the schools will be redefined: one quality control system will be in use, one website with an application mechanism for all, one information system (Intranet) for students, teachers, staff, administration and support services. Other institutions offering tertiary education will be able to participate in the network regardless of their management or ownership (Stefna um opinbera háskóla 2010).

Since the University of Iceland was not founded until in 1911 with just a few faculties at the beginning there is a longstanding tradition that Icelandic academics go abroad to study, especially for postgraduate studies. Such study has been mainly undertaken in other Nordic Countries, North America, Germany and France where these students have encountered high quality library and information services. As a consequence, those who have studied abroad have wanted to enjoy the same service standard when they returned to Iceland. Therefore, this group of persons has been very positive about the establishment of the ICES.

## The Research Environment

Research in Iceland has been evolving. Moving from traditional studies in history, language and Icelandic studies in literature and linguistics, research in the country now covers a broad spectrum of disciplines. International cooperation is also feature of research conducted by Icelanders.

### Research in Iceland

Figures from The Icelandic Centre for Research (Rannsóknamiðstöð Íslands – RANNÍS) show that research and development (R&D) expenditure in Iceland

as a share of Gross Domestic Product (GDP) is relatively high compared to other countries. The figure currently stands at around 2.7% of GDP. The main areas of research are the health sector, industry and fundamental research. A comparison of the impact of publications by scientists in OECD countries, measured by citations to their articles, shows that Icelandic scientists score highly in areas such as medicine and health, biomedicine, fisheries and the geosciences. Icelandic scientific researchers cooperate with colleagues from the Nordic countries, USA and Britain and often publish in foreign peer-reviewed journals (Research and Development 2009). The countries in which Icelanders cooperate with other researchers are also the countries where most Icelanders have pursued their education abroad. Working with colleagues in those countries and having their publications accepted by journals domiciled in those countries indicates that networking continues after Icelandic researchers return home. The number of articles by scientists working in Iceland that have been published in foreign journals has grown considerably over the last decades as shown in Table 1. The majority of these articles are in English to get a larger readership.



Figure 3: Number of articles by scientists working in Iceland published in foreign journals (Thomson ISI) 1981-2007

The number of citations in Icelandic articles and articles where Icelanders are collaborating with foreign colleagues has also grown. The growth has also been considerable in co-publications. In 2008, more than 70% of all Icelandic research publications were co-publications (Ritryndar birtingar 2010).

In 2009, according to *The European Innovation Scoreboard*, Iceland has an innovative performance just below the average in Europe but the rate of

improvement is above the average. Relative strengths are in the indicators Finance and Support and Linkages and Entrepreneurship. In recent years, Human Resources; Finance and Support; and, Throughputs have been the main drivers of improvements in innovation performance in Iceland. Performances in Linkages and Entrepreneurship and Economic Effects have worsened, in particular due to a decrease in employment and the bad economic situation which currently exists in the country (European Innovative Scoreboard 2010). Further information indicates that more service is needed by innovative firms and the general support given to this area needs strengthening. The support system needs to be evaluated and developed into a robust service (Frammistaða Íslands í nýsköpun 2009 2010).

In these times of economic downturn, recent policymaking and statistics about innovation performance indicate the importance of a strong and effective support system and infrastructure for education, research and innovation. Statistics show considerable growth in published research from Iceland during the last decades. The numbers reveal how science and the research environment in Iceland have grown. Over the last ten years the growth has escalated because of better and more systematic funding, but also because of better support system, including the ICES.

### Policy for Science and Technology

*Building on Solid Foundations: Science and Technology Policy for Iceland 2010-2012*, states that the collapse of the Icelandic financial system in 2008 requires a fresh perspective on the structure and development of the Icelandic community [2009]. As a way out of the crisis it is considered necessary to prioritize the allocation of funding and coordinate the work of the public and private sectors. It is also recognized that public support for both sectors and intersectoral cooperation can enhance efficiency and lead to financial and economic benefits. The policy was prepared by the Science and Technology Council (Vísinda- og tækniráð) of Iceland in an extensive consultation with stakeholders. A committee appointed by the Council developed a roadmap for strengthening research infrastructures in Iceland. The most important facilities in the academic and research communities were identified and it is recommended that extra efforts should be put into the development of the main agencies that support research such as the continuation of the ICES.

Financing the ICES has not been the strongest side of the project (Sverrisdóttir 2006). As a result, the policy clearly states that continued national access to e-journals and databases is a crucial part of the infrastructure needed to maintain high impact research and innovation activities in the country. Other important elements to support research and innovation were identified as high-speed Internet connections to Europe and North-America, the organization and maintenance of national scientific databases and improved access to the data,

use of eScience and the development of a policy of Open Access for findings from publicly funded research (Building on Solid Foundations ... [2009]).

## The Library Environment

Although Iceland has an enduring literary culture and an ancient writing tradition it does not have a long library tradition as this concept is understood today.

### Historical Overview

The first Icelandic reading society was founded in 1790; this was shortly followed by others (Óskarsdóttir 2002). During the second half of the nineteenth century, reading societies were to be found all over the country. Volunteer work ensured that the societies flourished and the desire to further one's knowledge and education severed as personal motivators. Between 1790 and 1982, as many as 431 reading societies and public libraries were in existence (Sverrisdóttir 1997). In 1937, a law was passed about their activities and in 1955 the first public library law was passed. In the same year, the Directorate for Public and School Libraries (Bókafulltrúi ríkisins) was established in the Ministry of Education. The role of the Directorate was to supervise libraries and their activities and to enhance and contribute to there being more professionalism among Icelandic libraries and librarians.

Many of the reading societies have merged and transitioned into modern public libraries. During the last decades, the role and status of the public libraries have rapidly developed in a positive way and their usage increases every year (Þórarinsdóttir 2006b). The Public Library Act was reviewed in 1963, 1974 and 1997 and the Directorate was discontinued in the last review, although the decision to disband the Directorate was taken in 1994. The rationale behind this decision was that the National and University Library had become the coordinating body for the profession with responsibility to promote the standardization of work practices in Icelandic libraries, provide professional consultation services and carry out cooperation on the widest scale (Pétursdóttir and Júlíusdóttir 2010; National and University Library Act, 71/1994).

### The National and University Library

The National Library of Iceland was founded in 1818 due to donations from beneficiaries from abroad. The first librarian appointed was Jón Árnason who

served the library 1848-1887. In 1886 it became a legal deposit library and has published the *Icelandic Bibliography* since 1888. In 1846, a manuscript department was established. During the period 1881-1909, the National Library and two professional schools, Theology and Medicine, were housed in the Parliament building in Reykjavík. The Library was moved to a new building in 1909 and in 1911 the professional schools became faculties of the new University of Iceland. The faculties soon established their own collections and in 1940 when the University moved to new premises, the University library was founded and faculty collections became a part of it (Sigurðsson 1997a; Guðmundsson 1997).

The National Library and the University Library were amalgamated in 1994 and both libraries were moved to a new building. The new NULI received its own legislation stating that the library is both the National Library and the library for the University of Iceland. The library is a research library which shall maintain effective and comprehensive information services in the fields of science and scholarship, government and industry (Sigurðsson 1997b; The National and University Library Act 71/1994).

Several other research and university institutions have also founded libraries. The strongest national research institutions such as the Marine Research Institute (Hafrannsóknastofnun Íslands), Landspítali University Hospital Library (Heilbrigðisvísindabókasafn), the National Energy Authority (Orkustofnun) and the Meteorological Institute (Veðurstofa Íslands) have considerable physical collections in addition to relying heavily on e-resources.

### Libraries and Information Centers

In Iceland a network of public, school, research and institutional libraries is in operation. In the Public Libraries Act of 1997 there is an emphasis on access to information for everybody, i.e. “libraries shall promote free and uninhibited access by the public to information and repositories of knowledge” (Lög um almenningsbókasöfn 36/1997). There are public libraries in nearly all municipalities, some of them also provide services to schools or are school libraries as well. The tendency has been to merge municipalities into bigger and stronger entities with better services, and the number of public libraries has therefore decreased within the last couple of decades.

For over 30 years, it was mandatory for primary schools to operate school libraries but in the current Primary School Act (Lög um grunnskóla 90/2008) there is no mention of a school library. The primary schools are now operated by the local municipalities as well as the public libraries and many of them operate combination libraries for schools and the public in an effort to use resources more effectively and also to give better services.

In secondary schools the current situation is different. From 2010, according to an amendment to the Upper Secondary School Act (Lög um fram-



haldsskóla 92/2008), secondary schools shall operate a school library. The Act states:

The activities of the school resource centre shall emphasize the training of pupils in independently seeking information and using data banks.

All the universities operate libraries but the one at the NULI is by far the largest. Many of them rely on e-resources on a wide scale but students and library staff use NULI as a reserve for material on paper and for interlibrary loans.

### Library and Information Science Education (LIS)

In 1956, courses in library science were introduced at the University of Iceland under the supervision of the University Librarian, the first one being Björn Sigfússon. Specialized programs were later introduced, like School Librarianship and Records Management. From 2004, an MLIS program (Master of Library and Information Science) has been offered for students with BA degree in other fields of study (Pálsdóttir 2009). In December 2002, a new branch of study was established in secondary schools for library assistants and technicians (Þórarinsdóttir 2006a). Thus, there are now good opportunities to study library and information science in the country.

### Professional Associations in Library and Information Science

The Librarians Association in Iceland (Bókavarðafélag Íslands) was founded in 1960 and within the Association librarians formed special interest groups such as research librarians, public and school librarians. In 1973, the Association of Professional Librarians (Félag bókasafnsfræðinga) was founded. It is noteworthy that in both cases, membership of these associations was limited to individual professionals, there is no provision for institutional membership as can happen in other countries. As a consequence, in Iceland, libraries are not strong financial supporters of these associations as is the case in some other countries. Thus, personal membership is the major source of support for these associations (Þórarinsdóttir 2009). In 1999, the two associations merged into Upplýsing – the Icelandic Library and Information Science Association (Upplýsing – Félag bókasafns- og upplýsingafræða). Further, an Association of Public Library Directors (Samtök forstöðumanna almenningsbókasafna) and the Association of Librarians in Secondary Schools (Samstarfshópur bókasafnsfræðinga í framhaldsskólum) have been created. All associations of librarians have had a considerable impact on the development of professionalism in libraries and on enhancing library services, such as on the establishment of the ICES.

## Library Cooperation

Cooperation among libraries and librarians in Iceland has a long history. These activities have either been on a small scale, involving few libraries or specialists, or big projects that have become a part of the national infrastructure of education and culture. Some of the projects have turned into businesses, like the Icelandic Library Bureau (Þjónustumiðstöð bókasafna) founded by associations of librarians in 1978 (i.e. The Librarians Association in Iceland and the Association of Professional Librarians). Originally, the Library Bureau produced and sold catalogue cards and later electronic records for Icelandic publications. Subsequent to the establishment of the union catalogue *Gegnir*, which serves the whole country, the Bureau now focuses on organizing and designing libraries and sells furniture and special equipment for libraries (Eiríksdóttir 1997; Þórarinsdóttir 2009). Several years before, in 1972, the Reykjavík School Library Centre (Skólasafnamiðstöð Reykjavíkur) was established. Its aim is to operate a centralized center for the acquisitions, cataloguing and processing of material for school libraries in the city (Björnsdóttir 1997). Some other local governments have also established similar centers for public and school libraries (Eiríksdóttir 2007). Established in 2000, *The Icelandic Web Watch* <[www.vefbokasafn.is](http://www.vefbokasafn.is)> serves as an example of a partnership project between a group of Icelandic public libraries. The goal of this partnership is to help members to locate quality Icelandic websites without having to rely solely on search engines, which sometimes return too many results, many of which are irrelevant. Experienced librarians choose, collect and organize the resources (Vefbókasafnið 2000).

Another extensive collaboration project is *Gegnir*, operated by the Consortium of Icelandic Libraries Inc. (Landskerfi bókasafna hf.). *Gegnir* is a *Union Catalogue for Icelandic Libraries* available at <[www.gegnir.is](http://www.gegnir.is)>, it also includes the *National Bibliography*. Founded in 2001, the Consortium is a company that is owned by the Icelandic Government and a number of municipalities around the country. Its purpose is to operate a central, web-based library system for libraries in Iceland. About 300 libraries, information centers, institutions and private bodies use the system today, all library types included (Landskerfi bókasafna 2010).

## The Road to Electronic Resources

When Icelandic libraries started to use electronic information, a new forum for cooperation emerged. Online searches were introduced in Icelandic research libraries in the seventies and courses for online searching were offered in the Library and Information Science (LIS) education at the University of Iceland from 1981. Icelandic libraries began to use the Internet in 1986 and soon databases on CD-ROM became available. Licensing science e-journals started in

the nineties and small consortia were formed. Medical libraries were the pioneers in subscribing to electronic journals and established the first consortium in the country (Pálsdóttir 2002). Automation of library catalogues was the main concern of libraries in the nineties. The Government's strategy on the Information Society states that:

“Libraries should be developed into comprehensive information centres that ensure all their customers easy access to information in electronic form, among other means, through links to domestic and international educational centres and data banks (The Icelandic Government's Vision 1996).”

In 1997, the Association of Research Librarians (Félag bókararða í rannsóknasöfnum) in cooperation with the NULI took the initiative to organize a conference on *Information on the Internet* (Upplýsingar á Interneti). On the agenda were Internet information issues and the development of collaborative strategies to acquire access to e-journals and databases (Pálsdóttir 2002; Þórarinsdóttir 2006b). Librarians, scientists and representatives from Government participated and proposed that the Icelandic Government would appoint a committee to organize access to electronic resources (Pálsdóttir 2002). The conference was a turning point in the discussion of access to electronic resources and the Association commenced negotiations on the matter with the Government and Ministry of Education. In 1998, a Task Force (Gagnasafnsnefnd) was established to make recommendations regarding electronic access. After two years of preparations and committee work, the Ministry licensed *Britannica Online* and national access was made available in April 1999. It was the first time that access to electronic resources was extended to a whole country based on IP-recognition (Gylfadóttir 2003). The first contract was promising and the library and research community in Iceland was optimistic that more would follow.

#### ICES – Establishment of the Organization

In 2000, after the success of countrywide access to *Britannica Online*, the Ministry of Education appointed a three year Project Management Group (Verkefnisstjórn) to work towards national access to more electronic resources. Among the tasks of the group was to gather information on current subscriptions for electronic and printed formats and also to explore the interest of libraries and the research community in being partners of national consortia (Sverrisdóttir 2006). In 2001, a study was conducted and a questionnaire was sent to 37 libraries. At that time, these libraries subscribed to 3,900 scientific journal titles, of which 660 were in both electronic and printed formats and 14 were in electronic format only. The survey showed that there was an over-

whelming support for the idea of negotiating on a national basis for access to these resources (Árnadóttir 2001).

It was made clear from the very beginning that libraries would have to finance the major part of the project, with a contribution from the Ministry. The group continued to negotiate access to reference and bibliographic databases on a countrywide basis. The contract with *Britannica Online* was used as model. On the other hand, publishers of e-journals were rather hesitant about such a scheme, not knowing how such access would work. A pioneering contract for *Science Direct* from Elsevier was signed in 2001 and soon other providers agreed to use this approach to provide access to electronic resources across Iceland. In 2001, the daily operation of the project was moved to the NULI and the first project manager, Þóra Gylfadóttir, was employed. The web site for the project <www.hvar.is> was launched in 2001 and other services such as user education and promotion were initiated (Sverrisdóttir 2006). The years 2000-2002 were defined as the experimental phase. If the experience of the project was satisfying, a more formal and secure structure would follow.

## Service Contract and Continued Development

At the end of 2002, when the period of the Project Management Group came to an end, a service contract for the implementation of the countrywide licenses was made between the Ministry and the NULI. The NULI received a yearly contribution from the Ministry and according to the contract the Library continued to operate the project and was made fully responsible for it. An advisory Purchasing Committee (Innkaupanefnd) was appointed consisting of representatives from the main groups of stakeholders. It was considered important to gain as broad a consensus as possible with respect to the licenses and secure the necessary consultation and cooperation between all parties (Þjónustusamningur 2002). The contract laid the foundation for the development of the project as an organization and as a consortium.

The service contract was revised in 2006 and it is still valid. The financial contribution from the Ministry was increased because more material was licensed. A novelty in the contract was the establishment of an annual general meeting, where the annual report and annual accounts are presented as well as key statistics. A five member advisory Steering Committee (Stjórnarnefnd) is appointed by major stakeholders and approved at the annual meeting. The mandate of the former Purchasing Committee was changed towards more emphasis on policymaking and financing instead of expertise on electronic material and representatives with stronger financial mandate were selected. The goal of the changes was to strengthen the ICES, improve its financial base and to make the ICES a more formal entity.

It took considerable effort on the part of the different stakeholders to reach consensus on the material to be licensed and to develop a fair pricing model. Now, some ten years later, the Consortium subscribes to a collection of resources that meets the needs of most users. Thus, the majority of the libraries in the country are willing to pay their share to the ICES, even if it is on a voluntary basis. To date, no contracts have been made to individual libraries.

## Present Situation – Effects of the Bank Crisis

As mentioned before, Iceland was hit severely by the bank crisis of October 2008. The main focus of the NULI and the Steering Committee since then has been to keep the Consortium intact and secure enough funding. Immediately after this crisis, it became obvious that the future of the ICES was in great danger because of the 50% devaluation of the Icelandic króna. As a consequence of a joint effort between all stakeholders: publishers, libraries, the NULI and the Ministry, continued access was secured for 2009. All libraries in the country have cut their budgets. However, in order to keep the ICES functioning, they have reduced services, cut individual electronic subscriptions and paper resources. Most of the contracts ran out at the end of 2009, but a new series of contracts have been negotiated for the years 2010-2012. The statement of ICOLC (International Coalition of Library Consortia) on the global economic crisis from January 2009 was of great help to all parties in order to better understand how the financial crisis affects the information community worldwide; also, suggestions of different approaches were helpful in order to continue the contracts (ICOLC 2009). Whether circumstances will allow the continuation of the ICES, in its previous form is to be seen, but definitely there is great deal of interest among the stakeholders to ensure that it survives.

## Organization and Structure of the ICES

The organization of the ICES has become more formal as time has passed. At the beginning it was an experimental project initiated by enthusiastic librarians. Today, it is an important part of the library system and the infrastructure of the science and research community in the country. In 2006, the development of the ICES and its future prospects were examined in the case study by Ingibjörg Steinunn Sverrisdóttir. The study was conducted with reference to theories of the development of organizations and organizational life cycles. Pnina Shachaf's (2003) model for the development of library consortia guided the research. Shachaf compares six different criteria from several specialized nationwide consortia and finds a developmental pattern. She outlines four stage life cycle sequences and suggests disbanding as the fifth stage. The study of the ICES shows a parallel development, i.e. that the consortium has devel-

oped as an organization, the beginning stage and the first steps in the life cycle were completed. In 2006, it was in the developmental or growth stage. All prerequisites were in place for progressing to the maturation stage where the organization is fully developed and operates smoothly. But, in order to do so, the ICES needed to be strengthened, to gain better connection with its environment, form a clear policy and set goals. It also needed to improve its governance and operations to be more effective and efficient.

In 2006, work began along these lines and the revision of the service contract was a part of the overall development of the ICES. The first annual meeting was held in 2007. The Steering Committee had policymaking on its agenda in the autumn of 2008 when the bank crisis unfolded. Since then, all efforts have been directed towards fundraising and negotiations to keep the ICES afloat.

### Management and Decision-making

A service contract with the Ministry of Education is the financial basis of the ICES project and its management. The NULI runs the project and has two FTEs (full time equivalents) staff members to manage the project on a daily basis. One project manager for day-to-day operations and several people in the library who assist with licensing activities, negotiations, fee collection from libraries and institutions, the payment of invoices from providers, web management, computer services among other activities. The NULI is responsible for policy-making and the implementation of plans. As previously indicated, the Steering Committee consists of five members and it usually meets once a month with the National Librarian and the project manager. Members of the Steering Committee do not receive payment for their services to this body. The committee consists of representatives from the biggest stakeholders in the project, these are: the University of Iceland, other university libraries, health libraries, public and college libraries and research libraries. The Steering Committee participates in policy planning regarding licensing of databases and e-journals, makes budget proposals, decides the pricing model and approves contracts (Þjónustusamningur 2006). It also discusses trial offers, system operations, utilization of new technology, foreign relations and follows developments in the field, such as new services, preservation of electronic journals and repositories.

### Licensing and Negotiating

At the beginning of the project, publishers and vendors were rather hesitant to enter into such an unusual contract. Vendors were reluctant because they were afraid of losing sales and markets. However, the experience in 1999 with *Britannica Online*, the first such arrangement in which access was opened to an entire nation could likely have laid some of their fears to rest.

Licenses are usually secured on a three year basis. A special Negotiating Committee (Samninganefnd) with three to five members is appointed each time new a contract is to be drawn up or an existing one extended. This is a specialized task and it is important to have a group of people with the required knowledge and experience undertaking this responsibility. Knowledge about contracts and the negotiating process must also be shared with new members and others. Documenting the process is also very important. The Negotiating Committee must also have a clear sight of what it wants to achieve. In winter 2009-2010, the Negotiating Committee revised and prolonged all the existing contracts for the period 2010-2012.

### Financing and Pricing Models

There are different pricing models for databases and e-journals: these have been developed over the years. At the beginning, the license fee for e-journals was based on the number of subscriptions each vendor had in Iceland during 2000 based on a survey conducted by Erna G. Árnadóttir (2001). This information created a base fee. Then, on an annual basis, an additional fee was negotiated for all the new titles and additional volumes to existing titles placed in the packages. Thus, the total fee consisted of the following three components:

1. Base fee (grunn gjald) – based on existing subscriptions in 2000;
2. Additional fee (viðbótargjald) – for new titles and volumes after 2000; Special additional fee (landsaðgangur) – for countrywide access.

The licenses covered both print and electronic subscriptions. Vendors charged individual libraries for the base fee but the Ministry and later NULI paid the additional fee and the special fee for the national access and collected it from the libraries. This was complicated and the procedures were not transparent to the libraries involved (Sverrisdóttir 2006; Hannesdóttir 2005).

When the contracts were renewed in 2003, an e-only arrangement was negotiated and libraries could cancel their printed subscriptions (Hannesdóttir 2005). As usage statistics cannot be used to determine payments of participating libraries, a pricing model based on the evaluation of the usability of each database or e-journal package was developed. Libraries and institutions were grouped into sectors and within each sector different criteria were used to calculate the fee. It was also decided that vendors would send only one invoice to NULI, which then billed libraries and institutions for their portion of the invoice. This simplified the management and cost control of the project and the libraries could save money, staff and space by canceling subscriptions to print versions.

In 2006, a new pricing model was developed based on categories of libraries that pay for a certain proportion of the total amount. This model is still in use. More criteria are used to calculate the rate within every group in order to

be as fair as possible to everyone. The figures for the criteria used are based on official statistics from Statistics Iceland (Hagstofa Íslands). Thus, there is transparency in the model. The model can easily be adapted to reflect changes in the institutional structure of the country.

The yearly contribution received from the Ministry under the service contract is used to support the daily operations of the project (staff, website, promotion, travel, etc.). However, the larger portion goes towards the payment of licenses for databases and e-journals. Based on the pricing model, the Ministry's contribution is approximately 20% of the fee for licenses, the remainder coming from the approximately 200 libraries, information centers, institutions and private bodies that participate in the project.

Databases account for approximately 20% of the cost and e-journals 80%. Nearly all the participating bodies pay for databases, but only about 60 participants pay for e-journals. University and health libraries are the largest subscribers. No formal contracts have been made with libraries and institutions, but a general agreement has been obtained based on an understanding of the importance of the project for the library community, education, the research environment and the development of the Icelandic society. It is obvious that individual libraries do not have the finances to buy such extensive access on their own, but through this joint agreement they are able to provide their users with access to these resources. The fees are graduated so that the bigger libraries pay more than the smaller ones. The lowest fees are between 13-15 Euros for public libraries in the smallest municipalities but the University of Iceland, as the biggest single contributor, pays 225,000 Euros. Table 2 shows the number of contributors to the ICES who pay for databases and e-journals each year.

<b>Year</b>	<b>Databases</b>	<b>Journals</b>
2001	103	33
2002	189	31
2003	178	33
2004	174	37
2005	177	33
2006	175	45
2007	185	48
2008	183	61
2009	177	58

Table 1: The number of contributors paying for access from the ICES



The number of contributors changes each year due to various reasons. At the beginning about a hundred libraries and institutions paid for the access. In 2002, many new contributors joined the project. However in 2003, some municipalities were merged, leading to an overall decrease in the number of institutions that belong to the project. In 2006, when the most recent pricing model was finalized many small research and study centers began to contribute to the cost for having access to e-journals. An amendment was made to the model in 2008 resulting in payments from private firms for access to e-journals. It is anticipated that in the future the number of libraries and institutions in the country will decrease because of budget cuts, changes in the official structure and amalgamation of institutions and libraries, partially due to merging of municipalities

### Content of the ICES

The ICES now subscribes to more than 14,500 full text e-journals, abstracts from 8,000 journals, 12 databases, text from 10,000 analytical reports and 6,000 full text e-books. Because of the broad spectrum of user groups emphasis is placed on material that can serve the interest of many user levels. Several main user groups can be identified, i.e. students, academics, the scientific community and the general public.

In 2000, the first Project Management Group analyzed the wishes and needs of different types of library and their patrons. It was found that the strongest demand was for material in the social sciences, health sciences, education, natural sciences, engineering, computer science, business and economics (Þorsteinsdóttir 2001). The choice of databases and journal packages reflects these interests. There have been some changes in the subscriptions, some databases have been cancelled but other databases have been taken. The material covers all disciplines, but there is an emphasis on the health and social sciences plus generalities, the arts and music. One Icelandic database, an article collection from *Morgunblaðið*, a local newspaper, forms part of the content of ICES. It is heavily used but not accounted for in the numbers of downloads in Table 3. A list of titles currently taken is available at <[www.hvar.is](http://www.hvar.is)>.

### User Education

User education, workshops and training are part of the activities at the ICES. At the beginning, librarians had to learn how to search and use the material in order to promote it to users. Every year the project manager of the ICES gives training sessions in Reykjavík and beyond. User guides are on the website <[www.hvar.is](http://www.hvar.is)>, as PowerPoint slides with instructions in Icelandic. There are also traditional search guides from vendors, some of which have been translated into Icelandic. Further, libraries can order printed user guides. Vendors

also send representatives to Iceland to introduce new products and organize training sessions. Promotion in the media, at meetings, in library publications and conferences are some of the user services that are delivered. User education is also provided through promotions in the media and in library publications and also through presentations at meetings and at conferences. Many libraries offer training sessions for users, on both a group basis or to individuals. In schools many librarians cooperate with teachers in facilitating courses that are based on retrieving material from the ICES in order to enhance information literacy.

### Website and Dissemination of Information

The website <[www.hvar.is](http://www.hvar.is)> and the listserv *Skrudda* (meaning old book), which is a listserv for library personnel and library interest groups in Iceland, are seen as the means to promote and disseminate information about the ICES. An intranet has been developed for the advisory Steering Committee and the ICES staff. The Web also serves as an information source about the project and related material such as Open Access, material that is free on the Internet, etc. The following components can be identified on the website:

- Links to the resources;
- Information about the management of the ICES;
- Links to selected free material and Open Access;
- Information about small local/closed consortia.

The e-journals to which the ICES subscribes can be accessed directly by links to publishers or vendors and also through an SFX link resolver. SFX takes the user directly to the full text article, where possible. SFX offers additional services where full text is not available and it provides an alphabetical list of journals that the ICES provides. All university libraries in the country have information about their individual electronic subscriptions to e-journals in SFX. The current search engine for meta-search is *Searcher-Analyzer* from TDNet, which can search all the journal collections in the ICES at the same time in a federated search. Plans for including e-journals into *Gegnir*, the Union Catalogue, are in preparation as is the implementation of an integrated search system for *Gegnir*, Icelandic digitized material and licensed material, in cooperation with the Consortium of Icelandic Libraries Inc. (Landskerfi bókasafna).

### User Statistics

Information on the project to its stakeholders is important and the data should be presented clearly. Usage statistics are critical in order to show the benefits of access. As access is on a national basis, user statistics for single libraries or

institutions are usually not collected. It can be done but those numbers do not tell the whole story, because end users can and do use the ICES at work, at home or wherever they need. Therefore, statistics for individual libraries or institutions cannot be used in the pricing model. Publishers present usage statistics four times a year online and the Project Manager and specified library staff members have privileges to this data and present it to stakeholders. The numbers are COUNTER compliant, i.e. vendors use COUNTER standards and protocols to collect and present statistics on online usage. Usage numbers are presented in the annual report of the ICES and on the website <www.hvar.is>. According to the statistics, overall usage has risen each year as shown in Table 3.

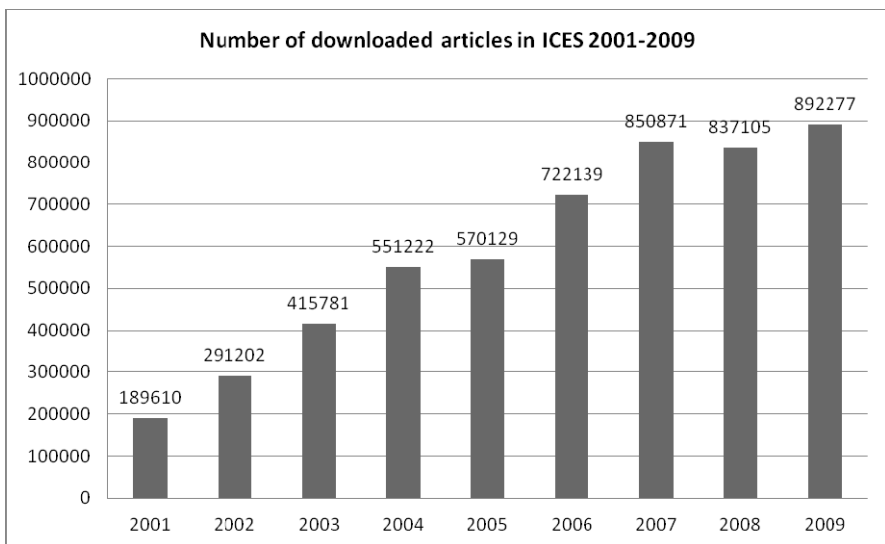


Figure 4: Number of downloaded articles from the ICES, 2001-2009

Usage increased most at the beginning of the project but a leveling out seems to be occurring in the years 2007-2009. Currently, compared to the beginning, more material is available as the number of e-journal titles that are available is increasing over the years. In this period, 2007-2009, approximately three articles are downloaded per capita each year. The growth in usage can partially be explained by growing number of students in colleges and universities. The establishment of new universities as well as research and study centers in Iceland's rural areas is also seen as a reason for increased usage. Many factors, such as the usage reports from publishers, indicate that the biggest user groups are university students and faculty members. Other groups that can be identified as high users are doctors, other health service personnel and academics in research institutes. Another strong factor indicating students as the biggest user

group is the usage statistics of the website <www.hvar.is> as shown in Table 4. The usage follows clearly the cycle of the school year with most usage at the beginning of the semesters and dropping in the summer time and during Christmas holidays.

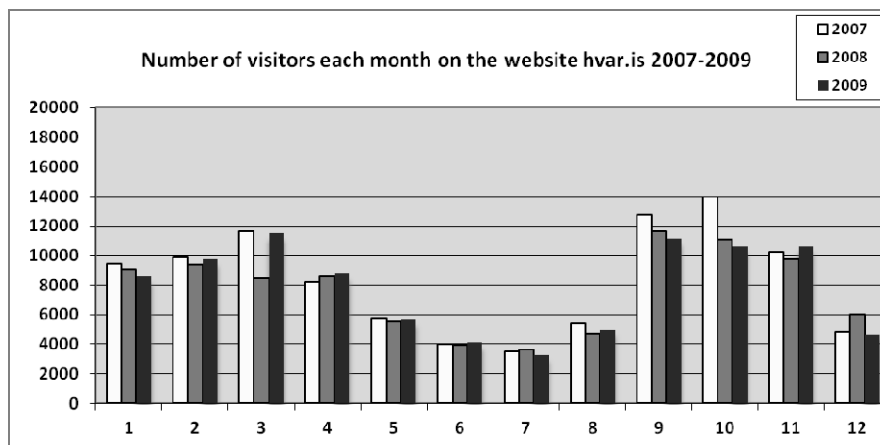


Figure 5: Number of visitors each month on the website <www.hvar.is> for the years, 2007-2009

There is a growing demand for scholarly articles and the ICES has acquired the status of being a reliable source for quality material. Statistics indicate that scholarly articles are more than half of all the material downloaded. In 2009, articles downloaded from journal collections were 53.1% of all full text articles downloaded; from blended collections, downloads were 39.2% of items retrieved; and, downloads from databases accounted for 7.7% of items that were retrieved.

Type Of Material	Number Of Downloads	% Of Downloads
Journal collections	473,650	53.1
Journal and blended collections	349,920	39.2
Databases	68,707	7.7
Total	892,277	100.0

Table 2: Downloaded full texts in ICES 2009 by type of material

### Impact on Interlibrary Loans (ILL)

The NULI is the center for ILL document supply in the country according to the National and University Library Act, 71/1994. Statistics reveal that ILLs

declined during the first years of countrywide access to electronic resources. A 2004 study, with an update in 2006, shows that parallel to an increase of downloads of the material in the ICES, interlibrary loans from the NULI declined (Gylfadóttir and Hlynsdóttir 2006). Statistics in the *Annual Report* of the NULI (Landsbókasafn Íslands – Háskólabókasafn 2000-2009) show that the number of articles ordered by library patrons has decreased considerably by between 50-60% since 2001. The demand for books and other material has been more stable. This is a consequence of more journal titles being available and also easier online access. Despite these changes there will still be demands for ILL material that is more difficult to obtain, such as reports, conference papers and books. As a result of the decline in ILL requests, less staff is needed in that department of the NULI and some former ILL staff members have been assigned to work in other areas of the library.

### The Impact of ICES

The changes in information dissemination and use in Iceland were evident after the establishment of the ICES. The impact of the ICES can be traced to many levels of the Icelandic society and by reviewing the existing documents and research the following can be inferred. However, research is needed to provide documented evidence.

### More Material

The number of times that scientific material has been accessed by people in Iceland has grown from approximately 3,900 paper and 674 electronic subscriptions in 2000 (Árnadóttir 2001) to more than 14,500 quality e-journals, several databases, reports and e-books in 2010 (Hvar.is 2010). Apart from the ICES, some libraries and institutions have individually accessed specialized e-material, some paid for by small consortia (Samkaup háskóla 2010).

### Easy Access

In 2000, journals were available in small closed consortia or on paper within a given library. Now, all journals in the ICES are available via the Internet to the whole nation on 24/7 basis and independent of the opening hours of libraries. The impact of unrestricted access cannot be measured easily but it opens new potential and possibilities for using the material. This also saves a lot of time and effort for users as it had been estimated that it could take a person more than an hour to go to the library to photocopy or print a journal article (Vísindamenn og almenningur 2006).

### Necessity for Education

The number of students in secondary and tertiary education has grown during the recent times (Statistics Iceland 2010a). More programs are now being offered at the master's and doctoral level (Statistics Iceland 2010a). Distance education and lifelong learning programs have been established and are quite popular. It could be inferred from the statistics that students are the largest single user group of the ICES and clearly this group benefits tremendously from having this type of access to information. Tertiary distance education in its present form would be nearly impossible without the ICES (Fjarnámið gerlegt 2007).

### Support to the Research Community

The number of articles published by scientists working in Iceland has grown during the last couple of decades. So too has the number of citations of research articles by Icelanders as well as those in which persons from Iceland have collaborated with other colleagues (Research and Development in Iceland 2009). Many factors contribute to these achievements such as policy planning, increased and more systematic funding and a stronger infrastructure where the ICES plays an important role (Building on Solid Foundations ... [2009]). The figures have increased at higher speed after the access to e-journals and databases was opened, Table 1.

### Necessity for Rural Research and Study Centers

Several research and study centers have been established in rural areas as well as many projects connected to travel and tourism (Fræðasetur 2010). The study and research activities are usually tied to local resources. Many of the specialists and academics working in these centers claim that access is a necessary condition for their work.

### Usage

It is evident from the user statistics that the Icelandic nation seems to be satisfied with the level of access that is available nationwide and new ways to use the material are constantly being explored, Table 3. Elementary school children can learn how to use the e-resources at a young age and that gives them an advantage as they progress to later studies. Iceland has increasingly become a multicultural society (Landshagir 2009) and the ICES provides support to immigrants by giving access to a variety of quality material in English. As mentioned before the demand for quality foreign and scholarly material has increased among Icelandic scientists.

### Changes in Library Operations

End users are not dependent on library opening hours and they do not need to go to the physical premises of the library as often as before. Work processes in libraries have changed, the acquisition of paper journals has decreased and cataloguing, filing, shelving and ordering missing issues required less time to do than they did before. The need for housing and shelving space for the storage of back issues of printed material has been reduced. The demand for scientific articles in interlibrary loans has also decreased (Gylfadóttir and Hlynisdóttir 2006). As a result, staff formerly occupied with these tasks can be redirected to other tasks like information literacy instruction, end user services and digitization projects.

### Support to Public Policy

The ICES strengthens the national infrastructure for education and research. It also underpins the Icelandic Government's strategy for creating an Information Society (The Icelandic Government's Vision 2006). The project is an important medium in gaining equality and democracy in the country and for free access to information for the general public.

### Conclusion

There has been a growing demand in Iceland for information and access to scientific journals and research results. The idea of having access to electronic resources that is national in scope received, from the very beginning, positive support from all stakeholders in Iceland, namely the library and the research community. The ICES answered this demand and the access to information that it provides supports research and scholarly activities at universities and research facilities around their country. There is the research output of the country has been strengthened and the number of researchers has grown. Further, the ICES gives small libraries and libraries in secondary schools access to material that they would never be able to buy from their own resources, but through their contribution to the ICES persons in these institutions have the same access to information as any other citizen.

Undoubtedly, the impact of the ICES and its website <[www.hvar.is](http://www.hvar.is)> has been and continues to be significant. The changes are evident but more research is needed to improve the project – it is perhaps timely to conduct additional research on the ICES, its impact, benefits and future developments. For example, no systematic survey has been done on the usage of individual e-journals in the ICES, whether the titles subscribed to before the inception of the ICES are used, used more or whether it is the new titles that are most frequently used.

Studies on the impact of the ICES on the educational system are needed, cost-benefit analyses and how to enhance the usage of the material.

In small countries like Iceland, cooperation at all levels is very important. In the field of library service and dissemination of information it is vital to join forces in order to maximize the utilization of the resources available. The ICES has grown into a viable project and it is acknowledged as integral component of the infrastructure for education and research. Online information dissemination in Iceland now consists of three strong pillars:

- First: One a national library system with a union catalogue and a national bibliography;
- Second: A national licensing consortia; and
- Third: Access to digitized Icelandic heritage collections. Under preparation is access to all online material through one national portal.

It has taken considerable effort among the different stakeholders to reach consensus on the material to be licensed and arrive at a fair pricing model. But, the library community used the experience it had acquired from former cooperation projects and it managed to build a good and solid service for the benefit of the country. The process has strengthened the libraries and the librarians as a professional group.

## Credits

Map sourced from:

[www.lonelyplanet.com/maps/europe/iceland/](http://www.lonelyplanet.com/maps/europe/iceland/) and adapted by Paul S. Gibbs, Educational Media Services, UWI, Cave Hill.

Figure 3: Research and Development, 2009

Figure 4: NULI

Figure 5: NULI

Table 1: NULI

Table 2: NULI

## References

- Árnadóttir, Ema G. “Landsaðgangur að rafrænum tímaritum: könnun á viðhorfi bókasafna.” *Bókasafnið*, 25 (2001): 49-52. [English abstract.]
- Björnsdóttir, Margrét. “Skólasafnamiðstöð Reykjavíkur.” Pálsdóttir, Guðrún and Hannesdóttir, Sigrún Klara, eds. *Sál aldanna. Íslensk bókasöfn í fortíð og nútíð*. Reykjavík: Félagsvísindastofnun Háskóla Íslands, Háskólaútgáfan, 1997.



- Building on Solid Foundations: Science and Technology Policy for Iceland, 2010-2012. Reykjavík: Prime Minister's Office, [2009].
- Compulsory Schools 2007-2008 Hagtiðindi: Skólamál = Statistical Series: Education, 94 (2009), n. 33. 2009. <https://hagstofa.is/lisalib/getfile.aspx?ItemID=8203> [Mar. 2011].
- Eiríksdóttir, Laufey. (2007) "Mikil uppbygging bókasafna á Austurlandi." *Bókasafnið*, 31 (2007): 53-55.
- Eiríksdóttir, Regina. "Þjónustumiðstöð fyrir íslensk bókasöfn." Pálsdóttir, Guðrún and Hannesdóttir, Sigrún Klara, eds. *Sál aldanna. Íslensk bókasöfn í fortíð og nútíð*. Reykjavík: Félagsvísindastofnun Háskóla Íslands, Háskólaútgáfan, 1997.
- Eurydice (2008) National Summary Sheets on Educational Systems in Europe and Ongoing Reforms "Iceland." [http://eng.menntamalaraduneyti.is/education-in-iceland/Educational\\_system/](http://eng.menntamalaraduneyti.is/education-in-iceland/Educational_system/) "Fjarnámið gerlegt með hvar.is." *Morgunblaðið*, 95.23 (2007): 21.
- Frammistaða Íslands í nýsköpun, 2009. "European Innovation Scoreboard (EIS)." Reykjavík: Rannís, 2010.
- Fræðasetur (2010) Stofnun fræðasetra Háskóla Íslands. <<http://www.fraedasetur.hi.is>>
- Guðmundsson, Finnboi. "Landsbókasafn Íslands 1818-1994." Pálsdóttir, Guðrún and Hannesdóttir, Sigrún Klara, eds. *Sál aldanna. Íslensk bókasöfn í fortíð og nútíð*. Reykjavík: Félagsvísindastofnun Háskóla Íslands, Háskólaútgáfan, 1997.
- Gylfadóttir, Þóra. "Landsadgang til elektroniske databaser og e-tidsskrifter i Island – portalen hvar.is." *Synopsis*, 34.2 (2003): 66-69.
- Gylfadóttir, Þóra and Hlynsdóttir, Þórný. "Iceland. The story continues ... Of nation-wide access to e-journals." *Interlending and Document Supply*, 34.1 (2006): 9-14.
- Héðinsdóttir, Pálína. "Bókasöfn í breyttu umhverfi: tilviksathugun á fjórum stofnunum á náttúrufræðasviði." *Bókasafnið*, 32 (2008): 44-50.
- Hvar.is *Landsaðgangur að rafrænum gagnasöfnum og tímaritum*. 2010. <http://www.hvar.is> [Mar. 2011].
- Iceland. Ministry of Education, Science and Culture. *The Educational System in Iceland*. Reykjavík: Menntamálaráðuneytið, 2002.
- Iceland. *National and University Library Act, 71/1994*. 1994. <http://eng.forsaetisraduneyti.is/information-society/English/nr/890#3> [Mar. 2011].
- The Icelandic Government's Vision of the Information Society. Reykjavík: Prime Minister's Office, 1996. <http://eng.forsaetisraduneyti.is/information-society/English/nr/890#3>
- ICOLC (International Coalition of Library Consortia). *Statement on the Global Economic Crisis and Its Impact on Consortial Licenses*. 2009. [www.library.yale.edu/consortia/icolceconcrisis-0109.htm](http://www.library.yale.edu/consortia/icolceconcrisis-0109.htm) [Mar. 2011].
- Landsbókasafn Íslands – Háskólabókasafn. *Ársskýrsla 2000-2009* [Annual Report of the National and University Library]. Landsbókasafn Íslands – Háskólabókasafn, Reykjavík, 2001-2010. See also <http://landsbokasafn.is/index.php/bokasafnid/um-safnid/utgafa>
- Landshagir. *Statistical Yearbook of Iceland*. Reykjavík: Hagstofa Íslands [n. p., 2009].
- Landskerfi bókasafna (2010) Consortium of Icelandic Libraries [http://www.landskerfi.is/sja\\_uk.php?id=53](http://www.landskerfi.is/sja_uk.php?id=53)
- Lög um almenningsbókasöfn*. [The [Public] Libraries Act], 36/1997. [Reykjavík: Government of Iceland], 1997.
- Lög um framhaldsskóla*. [The Upper Secondary School Act], 92/2008. [Reykjavík: Government of Iceland], 2008.

- Lög um grunnskóla*. [Primary School Act], 90/2008. [Reykjavík: Government of Iceland], 2008.
- Lög um háskóla*. [Universities Act], 63/2006. [Reykjavík: Government of Iceland], 2006.
- Lög um leikskóla*. [The Pre-school Act], 90/2008. [Reykjavík: Government of Iceland], 2008.
- Óskarsdóttir, Þóra. "Iceland." Jens Thorhauge, ed. *The Nordic Cultural Sphere and its Public Libraries*. København: Danish National Library Authority, 2002.
- Pálsdóttir, Ágústa. "Framhaldsnám á meistarastigi í bókasafns- og upplýsingafræði við Háskóla Íslands." *Bókasafnið*, 33 (2009): 4-6.
- Pálsdóttir, Guðrún. "Aðgengi Íslendinga að rafrænum gagnasöfnum: yfirlit." *Bókasafnið*, 26 (2002): 8-12.
- Pétursdóttir, Kristín H. and Júlíusdóttir, Stefanía. "The history of public libraries in Iceland." Dyrbye, M., et al., eds. *Library Spirit in the Nordic and Baltic Countries. Historical Perspectives*. Tampere, Finland: Hibolire, 2009.
- Pro Inno Europe. European Innovation Scoreboard, 2010. *Comparative Analysis of Innovation Performance*. 2010.  
www.proinno-europe.eu/page/european-innovation-scoreboard-2009 [Mar. 2011].
- Research and Development in Iceland. Reykjavík: Rannís, 2009.
- Ritrýndar birtingar og áhrif þeirra. Samantekt um árangur Íslands. Reykjavík: Rannís. 2010.  
www.rannis.is [Mar. 2011].
- Samkaup Háskóla. 2010. www.hvar.is [Mar. 2011].
- Shachaf, P. "Nationwide library consortia life cycle." *Libri. International Journal of Libraries and Information Services*, 53.2 (2003): 94-102.
- Sigurðsson, Einar. "Háskólabókasafn 1940-1994." Pálsdóttir, Guðrún and Hannesdóttir, Sigrún Klara, eds. *Sál aldanna. Íslensk bókasöfn í fortíð og nútíð*. Reykjavík: Félagsvísindastofnun Háskóla Íslands, Háskólaútgáfan, 1997a.
- "Landsbókasafn Íslands – Háskólabókasafn." Pálsdóttir, Guðrún and Hannesdóttir, Sigrún Klara, eds. *Sál aldanna. Íslensk bókasöfn í fortíð og nútíð*. Reykjavík: Félagsvísindastofnun Háskóla Íslands, Háskólaútgáfan, 1997b.
- "Library Development in the Electronic Environment, Iceland 2005." *IFLA Journal*, 32.2 (2005): 151-161.
- Statistics Iceland. 2010a. www.statice.is [Mar. 2011].
- *Registered students at the upper secondary and tertiary level in autumn 2009*. Hagtiðindi: Skólamál = Statistical Series: Education, 95.4, (2010b).
- Stefna um opinbera háskóla. 2010.  
www.menntamalaraduneyti.is/media/MRNpdf/stefna\_opinberir\_haskolar\_birting.pdf [Mar. 2011].
- Sverrisdóttir, Ingibjörg Steinunn. "Upphaf og þróun lestrarfélaga." Pálsdóttir, Guðrún and Hannesdóttir, Sigrún Klara, eds. *Sál aldanna. Íslensk bókasöfn í fortíð og nútíð*. Reykjavík: Félagsvísindastofnun Háskóla Íslands, Háskólaútgáfan, 1997.
- *Landsaðgangur að rafrænum gagnasöfnum ogtímaritum*. Unpublished MA-thesis: Reykjavík: University of Iceland, 2007.
- Vefbókasafnið. 2000. http://vefbokasafn.is [Mar. 2011].
- "Vísindamenn og almenningur nota vefinn mikið." *Morgunblaðið*, 94.42 (2006): 40-41.
- Þjónustusamningur [um framkvæmd samninga um Landsaðgang við réttthafa rafrænna gagnasafna og útgefendur rafrænna tímarita]. 2002.  
www.hvar.is/upload/5/thjonustusamningar/thjonustusamningur2002.pdf [Mar. 2011].

*Þjónustusamningur* [um framkvæmd samninga við réttihafa og útgefendur um Landsaðgang að rafrænum tímaritum og gagnasöfnum]. 2006.

[www.hvar.is/upload/5/thjonustusamningar/Thjonustusamningur%202007.pdf](http://www.hvar.is/upload/5/thjonustusamningar/Thjonustusamningur%202007.pdf)  
[Mar. 2011].

Þorsteinsdóttir, Sólveig. “Um aðgang bókasafna, stofnana og einstaklinga að erlendum og innlendum gagnasöfnum.” *Bókasafnið*, 25 (2001): 36-48.

Þórarinsdóttir, Þórdís T. “Bókasafnstækni. Nýtt starfsnám á sviði bókasafns- og upplýsingafræða”. *Bókasafnið*, 30 (2006a): 65-74.

–. “Recent developments in Icelandic libraries.” *Bókasafnið*, 30 (2006b): 134-136.

–. “On subject classification and the use of DDC in Iceland.” Jóhannesson, Gunnar Þór and Björnsdóttir, Helga, eds. *Rannsóknir í félagsvísindum X*. Reykjavík: Félags og mannvísindadeild, Félagsvísindastofnun Háskóla Íslands. [n. p.], 2009.

–. “Dewey-flokkunarkerfið og notkun þess á Íslandi.” *Bókasafnið*, 34 (2010): 23-31.

# ‘Access for All’ and ‘Politics of Difference’: Comparative Case Study of Two European Libraries

Rumyana Koycheva

*Consultant Global Libraries – Bulgaria Project  
Sofia, Bulgaria*

## Introduction

Since the beginning of the public library movement in Europe, around the middle of the 19<sup>th</sup> century, public libraries have always been about ‘access for all’. The birth of public libraries was inspired by the ideas of the Enlightenment, which advanced reason and knowledge as driving forces for the progress. The movement also postulated that the great achievements of science and philosophy belong to all people. The justification for public libraries having an ‘access for all’ ideal was accepted by many countries for pragmatic reasons such as rapid industrialization, widespread urbanization, the necessity for educated workers (Allred 1972), and, the need for national revolutions to have knowledgeable people (Кирова 1975).

Within the last two decades of the post-industrial era, characterized by the boom of technologies, a knowledge-based economy as well as the infusion of the digital culture into all spheres of life, the philosophy of the Enlightenment was revived along two axes:

- First: The availability and access to ‘information for all’, combined with persons having the skills to produce and use knowledge in their daily and professional lives. These skills have proved to be key to personal, local and national development (Tise 2009); and
- Second: The ‘freedom of information’ or the access to information held by public bodies, is considered a universal human right by series of documents and by national laws that are now the law of the land in more than 70 countries, including some developing nations (UNESCO 2010). The enactment of such legislation and recognition of such international agreements represent advancements towards the culture of inclusion and democracy.

What implications do these developments have for public libraries as institutions given that they have as one of their primary functions the delivery of information and knowledge? As public bodies closely linked to their local municipalities’ agendas, public libraries are expected to identify and respond to a

diversity of user needs within their service communities through expanded activities and innovative services. Hence, public libraries need to take into consideration global phenomena such as the rapid diversification and segmentation of the world societies caused by liberalization, advances in human rights, globalization and migration. In practical terms, these require from public libraries the need to recognize distinctiveness within their local communities and for these institutions to constantly readjust their library products to meet ever changing demographics and different needs, in other words, to integrate the ‘politics of difference’ as part of their professional activities. This is one strategy through which libraries can ‘create opportunities for all members of the community to participate fully in the information and knowledge society’ as put forward in IFLA’s Strategic Plan for 2011 (IFLA Strategic Plan 2011). A number of ‘activities and groups’ within the framework of IFLA contribute to the differentiation of library products tailored to meet specific user needs and practices around the world (IFLA 2010). The American Library Association (ALA), although not mentioning the concept of the ‘politics of difference’, goes further by promoting both ‘access for all’ and the diversification of library activities through its competition-based Strategic Planning for Diversity and Diversity Research Grants, run by the ALA’s specialized Office for Diversity (ALA 2010).

Overloaded or challenged? Libraries are supposed to operate in quite complicated contexts: neo-liberal regimes; a world economic crisis; and, shrinking welfare states. The case studies chosen for examination in this chapter provide evidence on how some European public libraries are currently providing ‘access for all’ and responding to ‘difference’ in their communities. These include addressing issues such as:

1. What scope do libraries have with dealing with diversity;
2. How public libraries reach diverse publics;
3. What strategies they apply; and
4. How library products get changed and improved based on needs.

The analysis will also speculate on the anthropology of public libraries and how these relate to the ‘politics of difference’.

## Context

This chapter compares how the “P. R. Slaveikov” Regional Library<sup>1</sup> of Veliko Tarnovo, Bulgaria and the City Library of Gothenburg, Sweden provides access for all within a framework of the ‘politics of difference’. Several reasons determined this choice:

---

1 In this chapter the “P. R. Slaveikov” Regional Library will also be referred to the “Regional Library”.

1. Both libraries are the biggest in their countries;
2. They represent two diverse cultural contexts;
3. Both are active in practicing the ‘politics of difference’ in terms of a philosophy that is grounded in ‘access for all’;
4. Both libraries have developed a conscious policy towards ‘access for all’ and ‘difference’ while developing different strategies to reach their patrons.
5. Both libraries represent a conscious policy in the creation of specific library products for specific communities.

Evidence extracted from the two case studies together outline the wide scope of diversity, the range of possible users communities and highlight the subtle matter of the ‘politics of difference’.

## Methodology

The chapter uses a comparative case study method. Data was collected from fieldwork, in-depth interviews, professional discussions and correspondence, and an examination of diverse secondary data. The notes, taken during fieldwork in these two libraries in July and August 2010 serve as the basis for the study. A professional diary, reflecting on other European libraries visited in the last five years was also consulted during the course of the research.

Two in-depth interviews were conducted for the purpose of the study, one from each library examined, namely with the:

1. Director of the Regional Library in Veliko Tarnovo, Ivan Alexandrov; and the
2. Librarian-in charge of Europe Direct at the Gothenburg City Library, Daniel Backman.

In addition, many professional conversations and e-mails with colleagues from both libraries provided useful information for the study. Relevant research articles and web sites were also consulted.

## Theoretical Background

The study has been designed around two major concepts: ‘access for all’ and the ‘politics of difference’. Both need some additional clarification. ‘Access for all’ with regard to libraries implies two meanings:

1. Access to information which tackle diversity; and the
2. Skills which may be of use to any individual to create knowledge.

In recent years ‘access for all’ is usually associated with availability of digital information and skills to use it in order to produce personal knowledge and to ‘create equitable societies’ (UNESCO 2010; IFLA Strategic Plan 2011). No doubt, the concept has acquired more meaning within the digital era, but is this the whole truth? Information literacy is a term that is also often confused with the application of ICT to library services, although the two terms are theoretically distinct (Catts and Lau 2008). The distinction tolerates also other channels and styles of creating knowledge. Library practices throughout the world show diverse examples – from learning gardening through doing it such as was done about five years ago in the yard of the Permeke Library (Permeke Library, Antwerp 2010), to creating knowledge through debating (Sofia City Library 2010). ‘Access for all’ must thus be seen as a wide term deserving a flexible approach.

‘Politics of difference’ often blurs with the concept of ‘diversity’. Then, it is difficult to find references or previous writing on the ‘politics of difference’ in the literature of librarianship. Thus, this area requires investigation by LIS researchers either as a concept or as a library practice.

Nevertheless, the library community has been involved in developing collections and services for specific groups, e.g. for the blind, from as early as the creation of the first public libraries in the middle of the 19<sup>th</sup> century. Also, since the first decades of the 20<sup>th</sup> century, a great number of activities and groups within IFLA have been launched to guide and unite the efforts of the international community with regard to multiculturalism, multilingual societies, people with special needs, illiterate communities, children and youth, among others. There is a substantial amount of literature devoted to ‘diversity’ in librarianship in general (Gulati 2010) or public libraries services for ethnic and cultural diversities (Skot-Hansen 2002); diversity in the community (Larsen, Jacobs and Vlimmeren 2003); the elderly (Sloan 2009); ethnic diversity and citizenship (Roach and Morrison 1998); as well as to immigrants and newcomers (Bender 2007). There are also some libraries which develop collections of gay and lesbian literature (City Library of Amsterdam 2010). While some collect self-published amateur literature (Sello Library 2010).

A look at the concept of the ‘politics of difference’ in other fields could be of help to explain its meaning with regard to libraries. The term comes from political science and it is usually linked to the liberalization of thought after the movements that have taken place all over the world dating from the late 1960s. The concept acknowledges the rights and voices of the ‘Others’ such as women, youth, ethnic and racial minorities, persons with disabilities and homosexuals. These changes have also influenced popular culture’s fast growth and legitimatization. Some authors claim that historically “the rulers in pre-industrial societies had little concern with the ethnic identity and cultural practices of their subjects as long as they paid their taxes” (Grillo 1998). In most of his work Foucault suggests that the foundation of contemporary institutions,

which can be traced to between 1500 and 1800, was intended to discipline or isolate those who differed from the mainstream, i.e. those who represented the 'Other' (Foucault 1991). In this period the passion for ordering and classification was implemented into the functions of the new asylums, hospitals, prisons, almshouses as well as towards nomads, foreigners, strangers and migrants (Foucault 1991). During the creation of modern nation states in the 19<sup>th</sup> century, integration policies aimed at suppressing differences and assimilating ethnic minorities, immigrants and refugees into the mainstream of their host societies. The 'politics of difference' from its inception is associated with recognizing the differences, uniqueness and richness of human identity/ies. Consequently, the concept also has relevance to human rights and it is especially linked to the 'right of expression' for all segments of society (UNESCO 2010). It is also closely allied with issues such as identity politics, democracy, tolerance and inclusion. In humanities, the 'politics of difference' applies to subjects such as feminism (Weedon 1999); race (McCarty 1990); class relations (Harvey 1993); ethnic issues (Wilmsen and McAllister 1996) community development (Young 1995); pedagogy (Giroux 1992); medical research (Epstein 2007); and, disability (Humphrey 1999), etc.

A useful example of the 'politics of difference' in culture is presented by Mommaas with regard to the Tilburg Pop Cluster. This project is aimed at the 'formation of multiform civic urban space' (Mommaas 1999). It is about clustering several diverse music organizations – classical and popular – who jointly use a multifunctional building with a concert hall for 2,000 people. The space has also a sufficient number of rehearsal rooms which can be used simultaneously for different productions as well as several small stages for concurrent performances; a music café; a recording studio; a video-clip studio; an information desk; and, a small music shop, inter alia. Networking opportunities amongst education institutions like the Rock Academy, the Conservatory, a music Summer school, a Pop Factory, local youth communities, underground groups and a professional inner city stage company have also been established. The idea behind these initiatives is to acknowledge 'difference' and to accommodate diversity in all possible dimensions: education; production; and, consumption. All spectra of genres, highbrow and underground cultures, their publics and experiences are accommodated in this space. The outcome has been recognition of diversity, the constant mixing of big-scale and small-scale specific musical products and experiences as well as the formation of a creative space in which all can meet.

How can the above reflections be transferred to the library discourse? At first glance, the two concepts – 'diversity' and 'politics of difference' – may seem to overlap, but in fact they concern two separate issues. The first centers on scope and the second deals with the necessity of specific approaches to specific publics and products. With reference to public libraries it means an awareness of the differentiation and permanent redefinition of society into



fluid groups with unique tastes and needs with regard to such things as learning strategies, information, knowledge, culture, entertainment and communication. This new role of libraries can also be seen in the creation of less general and more small-scale library products such as collections, materials, services, events and experiences. Such developments require that libraries have a proactive approach towards their local adjacent communities and the fashioning of library work into a creative industry. Partnerships with similar organizations and grass roots groups, marketing, developing needs assessment skills, investing in the creation of user-friendly products, using advanced technological devices and applying proper promotional activities will make such a policy work.

### The Regional Library of Veliko Tarnovo, Bulgaria: a Case Study

Veliko Tarnovo is situated in north central Bulgaria at the foot of the Balkan Mountain along the twisting Yantra River. It is famous for having been the capital of Bulgaria between the 12<sup>th</sup> and 14<sup>th</sup> centuries. The city was known as center of culture, Christianity, literacy and book production in the Middle Ages. Now it attracts tourists from all over the world with its unique symbiosis of beautiful surroundings and old Bulgarian architecture (Veliko Tarnovo city 2010).



Figure 1: Bulgaria indicating the location of Veliko Tarnovo

The city is located at the crossroads where east and west Bulgaria meet, placed between Central Europe and Asia Minor, positioned on the European Transport Corridor 9 and built on and amongst three hills in the Balkan Mountain. It

is a ‘radiant’ place. A good city transport system connects the city centre with each point of the periphery. The city itself has a population of 72,111 whereas the metropolitan area has around 273,000 persons. Today, Veliko Tarnovo is a hub of culture, creative industries, university education and tourism.

### The “P. R. Slaveikov” Regional Public Library: Introduction

This library is known as a ‘people’s’ or ‘deposit library’, meaning that the library is one of the few in Bulgaria that receives items under the Law of Deposit. The collection of the “P. R. Slaveikov” Regional Library is based partly on a public library, created by patriotic Bulgarians in 1869 during the Ottoman Empire and the national revolutionary movement. As a consequence, it has one of the largest library collections in Bulgaria.

The main building of the Regional library is about a ten minutes walk from the city centre. The Archaeological Museum and two other famous historical museums – The State Archive Department and The Veliko Tarnovo Patriarchy – are located nearby. The design of the main library building, although from the beginning of the 40’s, stylistically matches the surrounding 19<sup>th</sup> century environment. The purpose-built library was meant to accommodate the library, the Archaeological Museum and a Gallery. Of course, the space soon became too small; as a consequence, the Gallery was relocated. Over time, four branch libraries in the four areas of the city were opened to provide additional accommodation for the growing collections. Now the Children’s Department, the Deposit Literature and the Special Media Collections are found in the biggest branch library. The Arts Department is in another branch library and the foreign language section is in yet another one. In practice this requires that transportation arrangements are put in place to bring material from one library to the other to meet users’ needs. The construction of a new modern building in a complex with a shopping center is anticipated, once the economic situation improves.

Meanwhile there is a competition for users with the University Library (which is not far away from the main library of the Regional Library) and five other traditional cultural centers with libraries, including the oldest one in the city. The latter neighbors the main building of the Regional library and in the last years purposely focused on a children’s collection in order to attract children and their families from that part of the city.

### Library Profile

As one of the biggest libraries in Bulgaria, gaining from the symbolic value of its city, the “P. R. Slaveikov” Library is keen to be seen as the premier information and cultural institution in the country. The library seeks to provide ‘access for all’ through an intensive digitization program, the availability of e-resources

for diverse audiences, international activities, networking and the library's involvement with the Eurostory 20<sup>th</sup> Century project which is a digital cultural history of 20<sup>th</sup> century Europe. With respect to acknowledging diversity the library has made big investments in providing access to information for people with disabilities. The library holds an annual scientific national conference in cooperation with the Library Department of Veliko Tarnovo University. It also sponsors regular open discussions about local and national cultural policies with Ambassadors and Directors of Foreign Cultural Centers. These are quite popular. Further, the library participates in most inclusive city events like cultural festivals (Ivanova 2009). All of these initiatives indicate that the library networks with a wide range of partners at diverse levels and in a number of fields.

This case study examines the library's policy with regard to serving diversity and difference, mainly through its creation and application of library products for specific deprived groups even if the number of persons in these groups may be relatively small. Developed in the last ten years, such efforts to embrace diversity and 'difference' are a part of the library's 'politics of difference' initiatives. These activities have been also connected with Bulgaria's efforts to join the European Union (EU) and to acknowledge the right to information and expression for all (Alexandrov 2010). Such policies presume a new proactive approach towards non-user communities.

The next section will present some library projects with four groups that are isolated and physically distant from all other communities in the city, namely, inhabitants of the prison; girls and ladies at the Safety Home for Victims of Trafficking; inhabitants of the Home for People with Mental Disabilities; and, residents of the Old People's House. As the first three communities are under closed regimes because of specific reasons (to be explained later) and the fourth one – because of the physical conditions of the most of the inhabitants, the library has developed a 'radiant' strategy of taking resources, guidance and instruction to the relevant communities, and in one of the cases also the opposite – that of bringing groups together with their available resources to the library space.

### Library services to inmates of the near-by prison

The prison is situated not far from the main library building. In an interview with the Regional Library Director, the Director of the Prison indicated that the prison population consists mainly of ordinary people. Sometimes they are persons who have fallen into a life of crime by accident (Alexandrov 2010). Since 2001, the library initiated a contract with the prison to employ prisoners for carriage<sup>2</sup>, repair the building, gardening and other activities. There is a clause in the contract which requires the prison to select inmates who are liter-

---

2 As in transporting items.

ate and diligent to work in the Library. In the beginning of the business partnership, the Director of the Prison indicated that the inmates who were chosen had expressed an interest in the library and that they wished to have access to books and periodicals (Alexandrov 2010). As they had no ID's, they could not become members of the library or access library services. Consequently, the library management decided to build a small library within the prison. In a partnership with the prison's management team, two library experts developed a collection of Bulgarian and world classic titles to help with the inmate's re-education process. The collection would also enhance their horizons and make their incarceration more bearable. The publishing house Slovo, a traditional library partner, joined the team and assisted the Regional Library with stocking the prison's library. Feedback from the prison's staff showed that access to books and knowledge had positively influenced the prisoner's patterns of behavior and how they spent their time. This encouraged the Library to expand the project and five librarians were appointed to develop a 'winter' strategy, a schedule which will cover the long winter hours inside the prison. The project was aimed at increasing reading and developing reading habits. The first steps included holding writers meetings and discussions in the prison; launching creative writing workshops conducted by volunteers; and, literary evenings which were devoted to the writing of poetry by prisoners, competitions, painting workshops and exhibitions. These events became regular library activities and were seen as being good practice. In 2007, when the probation scheme was launched in Bulgaria, the Regional Library was the first institution to sign a contract with the relevant office for convicted persons to arrange for them to work off their appointed hours in the library. Up to this point in time, about 10 probationers have worked between 100 and 200 hours each in the Library in the evenings and on weekends as a condition of their probation. A librarian has been appointed to be in charge of working with these persons. Among the tasks of this librarian is to organize discussions on books and to provide the probationers with instruction on how to use the e-catalogue and Internet.

#### Library services for persons at the 'Protected House for Victims of Trafficking'

The House was opened in 2008 in the village of Balvan, a few kilometers from Veliko Tarnovo. Ten victims of trafficking, women and under-aged girls, are housed at this institution. The occupants participate in a rehabilitation program. Four social workers and a psychologist are in charge of their recovery program. For safety reasons, the women are closely supervised. They are not allowed to have contact with persons in the surrounding community. Soon after its opening, the Director of the House approached the Regional Library for assistance. The Regional Library, an NGO and representatives of a small local library joined forces to develop a library strategy which sought to address the

victim's needs. The two libraries proposed to supply a mini library in the Protected House and the NGO was permitted to appoint staff to regularly visit and discuss with the women which books they preferred. A collection of 50 new books – fiction and classics – was donated by the two libraries. The well-known publishing house, Zahary Stoianov, a partner of the Regional Library, responded positively to an invitation to provide for the mini library a periodical of modern literature known as 'Vezni'. The entire initiative, including discussions and the new literary experience, was very well received by the women. The psychologist referred to this initiative as a bibliotherapy.

#### 'Access to knowledge' for the 'Home for People with Mental Disabilities'

The Regional Library has a well established policy to supply and service people with disabilities. It has long standing partnerships with the National Union of Blind People, the agency within the Ministry of Labor and Social Politics responsible for people with disabilities; the British Council; the local club for people with disabilities; and, the Municipality of Veliko Tarnovo. Several projects have been completed over the last 10 years. The library owns about 5,000 talking books; a significant collection of Braille books; a specially equipped and designed learning room at the biggest branch library in the suburb of Buzludga; regular information literacy courses for blind people; and, an external elevator and a bathroom for people in wheel chairs or others with mobility issues. This facility was made possible through a public-private partnership with several local companies.

The Home for People with Mental Disabilities dates from Communist times. It is situated in a mountain environment far from the city and villages (in order for it to be hidden from society). There are about 100 residents at this institution. In addition to the mentally disabled there are also some blind persons who have no one to care for them. As some of the inhabitants get aggressive and become dangerous to themselves and others, the Home follows a strong closed regime.

Six years ago the Director of the Home approached the Regional Library and asked for help in managing the inhabitant's time, stay and health care. Together with the library management team, they created a complex product of innovative services, which allowed the Home to borrow books from the Library for its residents. In addition, librarians lead reading activities in the best equipped space for that purpose in the Buzludga Branch Library; Braille literacy courses for the blind were also offered. This was accompanied by instruction in the use of the talking books. On their part, the Home decided to donate its collection of Braille books to the Library so that they could be accessible for regular use by disabled library patrons. This also ensured that these books would serve a larger population. Buzludga Branch Library rescheduled its program, so that on each Tuesday at 2.00 p.m. about 15 people from the Home,

escorted by a social worker, would come to the library by their minibus. Some take Braille courses, some listen to talking books, others take information literacy classes, while those with major medical issues sit, listen to explanations and enjoy a completely different experience. This makes them all look forward to the session in the following week (Alexandrov 2010). What has really made the librarians happy is that they succeeded in stimulating some of the mentally handicapped to use talking books which “helps them to refresh their lives, to improve their concentration and to get some calm in their souls” (Alexandrov 2010).

### The ‘Old People’s House’ Library Experience

This project started in 1994 soon after the opening of the new branch library in the largest area of Veliko Tarnovo, the suburb of Buzludja. The opening of this branch library was welcomed by the city dwellers. It is an area where people know each other. The librarians are also from the same area, so they know their neighborhood and their customers know them. This they say “eases their job”.

The branch library is about 500 meters from the Old People’s House, which hosts about 100 people. The Old People’s House has been in existence since 1980. It has a small library, a hall for cultural and social events and its own cultural traditions. Immediately after the opening of the branch library about 30 people from the Old People’s House became the first library members. Residents of the House have become regular patrons and participants of library events like poetry readings, meetings with writers and library celebrations. Encouraged by library staff some of the residents of the House joined the City Literary Club and started consulting with librarians about their attempts at writing poetry. Not long after its establishment, the branch library acknowledged this group of people as an important segment of the local library community. Through visits and focus groups librarians studied their needs in order to create library products pertinent to the needs of these persons. Librarians also facilitated access to information for inhabitants who are not capable of leaving the House. In a partnership with the House Manager and a few publishing houses, the House’s book collection was refurbished and enlarged with titles covering the classics and history. Also added were copies of periodicals about poetry, health issues, cooking, gardening and life styles. Then, as an important part of the library specific product librarians arranged regular lectures and talks about local, national and world history. These were accompanied by small relevant exhibitions in the House’s auditorium as well as literary evenings with children from the closest school. Through a partnership with the local school, instruction in using computers is available to interested residents at the branch library computer room by some volunteer students.

Several important outcomes of these specialized library services deserve to be mentioned. Two years ago, inhabitants of the House decided to publish a poetry book. Librarians were the first to lend with ideas, make connections to facilitate publishing and assist with the execution of the entire project. In 2009, a family from the House gave a poetry evening in the library which was attended by about 30 people from the neighborhood. In April 2010, a House Committee, encouraged by the Buzludga Branch Library, created an e-news-paper *Our Home*. Since then they have produced nine issues. There is always an article about the Library in each issue. The inhabitants of the House refer to the Library as their ‘second home’ and they say that the “library staff has changed their lives” (Our Home 2010).

## The Gothenburg City Library, Sweden: a Case Study



Figure 2: Sweden indicating location of Gothenburg

Gothenburg is situated in South-western Sweden at the mouth of the Göta River, which flows into the North Sea. It is the second largest city in Sweden and it has the largest harbor in the Nordic community. Traditional activities were trade, shipping, fishing and manufacturing. Modern Gothenburg is associated with SKF (a manufacturing company), Volvo (motor cars) and Ericsson (electronics). The city is also known for its water, canals, fashion and design, forests and parks, and its carefully arranged urban green spaces (Gothenburg 2010). There is a good blend between old 19<sup>th</sup> century architecture and post modern structures.

Located in the centre of Scandinavia, Gothenburg is a maritime city, easily accessible to the world. The Gothia Fortress, built on the Göta River to protect

the port, became practically and symbolically Sweden's gateway to the west. Gothenburg is proud to proclaim that it has eighteen members in the Swedish Parliament and that it is a leading city in transparency and democracy through its implementation of a diversity of projects. The city has about 509,847 people out of a total of 922,938 inhabitants in the metropolitan area. Immigrants constitute about 25% of the city's population. A cosmopolitan city, focused on international education, culture, events industry and tourism, Gothenburg is home to the Gothia Towers and the famous World Congress Centre, a site of many discussions and debates of a global nature (Gothenburg 2010).

### Gothenburg City Library: Introduction

The City Library is the main actor in a network of 24 neighborhood and two mobile libraries which serve the Gothenburg metropolitan area. The Library is favorably positioned on a canal-crossing boulevard known as Avenyn (The Avenue). This road leads to the old city centre, an open market and a small park. The City Library, located in building which dates from the end of the 1960's, is in a cluster which houses the Gothenburg Museum of Art, two theatres, a concert hall and an open-air stage in the lively Götaplatsen square.

The Gothenburg library collection was launched in 1861 in a flat in Haga. It was donated by mill owner, James Dickson, whose aim was to attract the working class to literacy and reading. There was no charge for this service. The building eventually became too small and in 1897 the library moved to South Avenue into one of the first purpose-built public libraries in Scandinavia. Sixty years later, the Library moved into the building on Götaplatsen in which it is still located.

The City Library's Exhibition Hall, located on the ground floor, is one of the city's most attractive art spaces. It hosts exhibitions, other library activities or events organized by diverse associations, NGOs and clubs. An auditorium on the lower floor, used for public lectures and debates, accommodates 187 persons and four wheelchairs. There are several nicely arranged cozy spaces for a variety of uses throughout the library; a library-café; as well as book and newspaper areas. A collection of items in more than 60 languages attracts people with diverse tastes, needs, practices and backgrounds to spend more time in the library. The building is to be renovated and expanded soon. This project is scheduled to begin sometime in 2011 and finish in 2013. The building glass walls will fuse library life with what is happening in the city.

### Library Profile

Gothenburg City Library is one of the biggest libraries in Sweden. It is a well-known and often visited place. The library aims to be a leading information and cultural institution in a country that is highly digitized. Its book and e-col-



lections, events and activities provide information, cultural and leisure services and products that cater to the needs of the city's diverse population. Automation has ensured that each library member can choose the branch library that best suits them to return a loan. A huge area with significant accessible media collections for people with various disabilities – visual, physical, reading and writing, developmental, hearing and aphasia, including relevant children's collections – supplements Sweden's famous welfare state policy (A Day at the City Library 2010). Two mobile libraries, equipped with new books and periodicals serve suburban communities.

As already implied, the library has developed a 'politics of difference' to serve its diverse urban community. The origin of this practice is the creation of a number of library 'corners', designed, furnished and devoted to specific collections, services and users. These corners include a Poetry Corner; an Information Literacy Corner; a Humanities and Social Science Corner; an International Corner with a language café and multilingual programs; a Dynamo Corner for youth; a Parliamentary Corner; a Europe Direct Corner; and an Entrepreneurial Corner (A Day at the City Library 2010). All of these create the 'mosaic' of the library. A quite remarkable event in these corners is the holding of debates on issues which impact on people's lives. For example, debates in the Poetry Corner on selected new books consider topics such as immigration, exclusion, trafficking, underground life, secret cities, sexuality, modern physics and the transformation of scientific language (Gothenburg City Library 2010).

This case study will focus on three unusual library products: namely, the Parliamentary Corner, the Europe Direct Corner; and, the Entrepreneurial Corner. They deal with major national, regional, European and world issues. In addition, there will be a short examination of the interesting Dynamo Corner which encourages youth self-reflection and free expression.

### The Parliamentary Corner

This facility was opened in the fall of 2004. It was an initiative of the Swedish Parliament to enhance democracy, transparency and direct participation in governance. The Parliament contacted four Swedish public libraries in the four parts of the country with a view to establishing Parliamentary Corners in these libraries. The libraries they contacted were located in:

1. Malmö (south);
2. Gothenburg (east);
3. Sundsvall (central); and
4. Umeå (north).

In practical terms the project was to make it possible for the most active citizens to have contact with the MPs for each region in order to increase access

to Parliamentary information and to enhance the influence of the public on the development of the bills due to go before Parliament. Daniel Backman, Librarian-in-charge of the Europe Direct Corner, shared that until 2004 the ordinary citizen was only able to communicate with politicians from Parliament during political campaigns on the streets and in the squares. The project created opportunities for regular meetings with MPs, where one could sit with them and talk openly about real life issues in library surroundings (Backman 2010).

Gothenburg City Library was the second institution to be invited to join this project. The library responded positively to the proposal as, at the time of the invitation, there were eighteen sitting Swedish MPs who grew up and lived in Gothenburg. The project was sponsored by the Parliament and managed by librarians assigned to the Corner. This library product consists of relevant book and magazine collections; a database; an access to a variety of electronic sites, including a link to the Parliament's Web site, where one can obtain information in Swedish, English and French; and, the organization and facilitation of discussions and debates with MPs. A pleasing and cozy Parliamentary Corner on the first floor of the library was created to attract interest in this initiative. A TV set in the Corner facilitates the viewing of Parliamentary debates, question sessions and committee cross-examinations.

Two librarians have been appointed to run this Corner. They are in charge of providing information on the work of Parliament; marketing events; researching relevant information; preparing information materials; contacting and inviting representatives from relevant professional organizations to participate in Corner-sponsored events; and, arranging presentations and debates with MPs from different parties on topics that are of importance to the residents of the Gothenburg region. Such events are held every Monday. NGOs, university departments, scientific institutions, unions and grass root organizations have also been involved in the development of this product. Promotion through the media and coverage in the Parliament are also features of this product.

The debates schedule includes topics which are under consideration in Parliament. Several examples from the last two years were mentioned as being well done and well attended. These include reflections on the job crisis, demographic issues, immigration policy, fishing and ecology, homosexuality and human rights, the tax policy of the country as well as cars and green politics (Backman 2010). For example, the debate on the job crisis had about 70 attendees; the immigration policy debate, currently a burning issue in Sweden and particularly in Gothenburg was attended by around 100 people; and, the one on the fishing industry and ecology had between 60 to 70 participants. The 'Job situation and Youth Prosperity', a classical election debate opened the new session of the Parliamentary Corner on 6 Sept. 2010. Representatives from seven political parties were involved in this event.

### Europe Direct Gothenburg Region Corner

This initiative was launched in 2009 and it has been a part of the European Commission's (EC) information network of about 500 offices in Europe of which twenty are in Sweden. Europe Direct Corners provide information on and answers questions about the EU and issues discussed at the EC. The project is based on the understanding that over 60% of the decisions which affect people's everyday lives are taken at the EU and that it is both a right and a duty of citizens to take part in that process. Europe Direct is aimed at promoting local and regional awareness as well as opening debates about EU and Swedish participation and interests in that body. The library product consists of a relevant library collection; a database to provide information about the EU institutions and their work; research on current issues; preparation of information materials; contacting relevant institutions; organizing and facilitating meetings and debates with European MPs from different parties; uploading relevant slide shows to the library's Web site; arranging temporary exhibitions on topical subjects; and, promotional activities.

Through a partnership between the Library, Gothenburg City and two regional consortiums, Europe Direct has been trying to identify and to address topics which matter to citizens of the Gothenburg region (Europe Direct 2010). Although a new library product, Europe Direct has already attracted the participation of diverse publics through the examination of a variety of topics: e.g. 'How the economic crisis affects people's daily life'; 'The free movement of people and companies to and from Sweden'; 'Jobs in Europe'; and, 'How to build a strategy to succeed in Europe'. The EU designated 2010 as the European Year to Combat Poverty and Social Exclusion. As a consequence, Emily von Sydow, a journalist and writer working in Brussels, was invited to give a talk on the causes of increased poverty and EU measures to improve the living conditions in the new member states and areas of need. Debates about EU actions in the environmental field as well as global environmental policies and issues which are of vital interest to Sweden are also included in the calendar of events.

### The Entrepreneur Corner

It is also known as the Faretagarinfo or the business corner. It is promoted on the Municipality's web site as offering information and inspiration for entrepreneurs (City of Gothenburg 2010). This Corner also supports the Municipality's efforts to raise knowledge about business; to encourage a culture of entrepreneurship; and, to give practical tips in marketing research and successful business strategies. Started in 2007 it targets both new and established entrepreneurs (The Entrepreneur Corner 2010).

This library product is comprised of a specialized collection of books and journals in economics, company information, management, business strategies, international companies, laws, taxes and accounting. Internet access, MS Office package, software for web and graphic design, including Dreamweaver 8, Indesign, Photoshop and Illustrator CS2, are also available free of charge. Database information about companies, markets and industries in Sweden and worldwide have been developed and are regularly updated. Consultation about access and use of information is also part of the product. A free newsletter dealing with all aspects of entrepreneurship, produced by specialized librarians, is also available for subscription. Discussions with successful business managers and company owners serve as opportunities for sharing experiences and practical tips. Librarians arrange these events on a regular basis (The Entrepreneur Corner 2010).

The Entrepreneur Corner is a comfortable place and its activities attract not only people from business but also the unemployed who are interested in meeting managers from the region. Some of the most interesting debates have been "Win Time – Do It Right From The Beginning" on how to start a company in the cultural industries with an introduction on taxes, trade, and accounting; a presentation by Gustaf Oscarson, an entrepreneur and author who discussed his new book "Mind Your Own Business" with tips from fifty of the country's most successful businessmen; and, inspiration and advice on "How to start business together" from representatives of the Ingrid Bexell Hultén Company (The Entrepreneur Corner 2010).

### Dynamo Corner

This Corner was created for young people between the ages of 13 and 25. It is situated on the lower floor of the library and leads to a garden. It is one of the most vibrant places in the library. During IFLA's 2010 Congress, when the lower floor attached to the garden was needed for the IFLA 'night spots', or the friendly meetings and discussions amongst the delegates, the Dynamo Corner was moved to the ground floor hall which has transparent glass walls. The Corner always attracted the attention of passers-by with its lively events and performances. The Dynamo Corner seeks to bring young people into the library through modern urban arts and culture. In this Corner one can listen to music; play video games; take part in book promotion discussions; borrow movies; practice diverse crafts; dance; view exhibitions; initiate and hold a debate; and, paint before a live audience. Everyone is welcomed, and it is always full of people (Dynamo 2010).

A closer look at the library product for youth reveals an interesting aspect: all the events are accompanied by discussions and debates. For example, the 2009 course for games from ancient Greek to the X-Box, lead by a game developer, was promoted to be discussed and tested. Another event, the 'Hip-hop

spoken workshop' not only stimulated youth to create music and texts but also to analyse and discuss other authors' texts and to reflect on hip-hop poetry. Creative writing and how to promote and publish your book have also been debated by the youth. These sessions are moderated by professionals. The library books which are promoted are chosen for their ability to provoke discussions and make the youth reflect on life issues.

## Discussion

Public libraries or 'libraries for all', originated in the Anglo-American world. Early models were quite different from today's libraries. In England the oldest public libraries appeared even before the Enlightenment: Bristol (1464), London (1425) and, Manchester in the middle of the 16<sup>th</sup> century (Makinen 2001). The establishment of several of these libraries was inspired by the 'access for all' philosophy. They were usually founded by the new rich, who were often merchants. One of the oldest and most important of them is Manchester's Chetham Library which is still functioning today, although on a limited scale. In 1653, Humphrey Chetham, a prosperous textile merchant who had no family, left in his will a large sum of money for charity. Almost half of his bequest was used to endow Chetham's Hospital; to maintain and educate forty poor boys; and, 200 pounds was left to establish small religious libraries in five local churches and chapels. The largest sum, 1000 pounds, together with the remainder of his estate was allocated for the establishment of a 'public library within the town of Manchester' (Powell 1988). In his will Chetham articulated what he wished the policy to be in terms of collection development in parochial libraries. Chetham stated that they were expected to provide "goodly English books such as Calvin's, Preson's and Perkin's works, comments and annotations of the Bible or some parts thereof, for the edification of the common people" (Powell 1988). The "Public library within the town of Manchester", although based on religious literature, was encouraged to supply any available scientific literature for the use of all citizens (Powell 1988). In practice, however, the library could only be used by that small percentage of people who were familiar with Latin.

In the 19<sup>th</sup> century, libraries came to the fore at a time when there were growing interests and advances in social issues such as free public education, public health, urbanization and the development of public spaces. These developments had their pure enthusiasts across England. However in Parliament these issues were promoted as being 'cheaper than police'. Libraries were free of charge, warm and safe places that could attract the growing working class and distract workers and their families from the pubs while giving them the knowledge that they needed to be better workers (Kelly 1973). Some of the most famous figures of the time were involved in the cause. Dickens himself

was invited to give a speech at the opening of the new Manchester City Library in 1849. In his presentation he mentioned that "in this institution, special provision has been made for the working classes, by means of a free lending library, this meeting cherishes the earnest hope that the books thus made available will prove a source of pleasure and improvement in the cottages, the garrets, and the cellars of the poorest of our people" (Kelly 1973). At the same time two separate ceremonies were held at the opening of that library, one for the working class and one for the nobs<sup>3</sup> (Allred 1972).

What is 'access for all' today and how do libraries manage diversity and difference? Three major characteristics of the concept of the 'new library' have been outlined in a recent collection of articles, devoted to Nordic libraries. These are:

1. Focusing on concrete users needs;
2. Providing new and appealing services; and
3. Taking library resources to where people are (Thorhaug 2010).

These characteristics refer closely the topics of the current research which is why the discussion on the current situation can start from here.

- First: As mentioned before in the last decade public libraries in the developed world were forced into mapping and addressing the needs of their local communities. The democratic character of Internet and similar technologies, the development of automation services and also the changing values towards a heterogeneous society and taking care of its diverse communities are some of the reasons that have created such opportunities;
- Second: Libraries have been researching user discourses to create library products in order to attract diverse publics. For example, since the beginning of the economic crisis (2008) the Seattle Public Library has been offering information, instruction and discussions about successful job strategies (Seattle Public Library 2010); the Manchester City Library, the city where the industrial revolution began, continues to develop its long-running product for starting companies, including patent application instruction by a specialized librarian (Manchester City Library 2010); and, the Aarhus Public Libraries have developed a database for their immigrant population in 13 languages as well as a computer area for 'job searches only' (Jackson 2005); and
- Third: The trend to move libraries products towards communities e.g. the tendency of combining libraries with community centers in deprived areas, of building new libraries within trade centers; a growth in mobile

---

3 This is a term that is used to describe persons who belong to the upper-class.

libraries; the emergence of popular café-libraries; the establishment of library-kiosks in distant areas; and, projects to launch small libraries in public and private spaces where people often get together (Noorani and Mokhtari 2009).

The case studies that have been discussed could be related to the concept of the new library. The findings highlight two opposing models of functioning, which consciously reflect policies determined by culture, context and communities. These two European libraries, one in an old democracy and one in a new democracy, represent two diverse strategies with respect to 'access for all' and the 'politics of difference'. The Bulgarian library in a city, which traces its origins to medieval times, is also a public entity in the poorest European country. The library faces several problems associated with transitioning from a Communist to a liberal economy. The previously hidden, isolated from cities and villages, neglected communities of the social homes, old people houses and the disabled, are nowadays visible within society. These groups cannot be ignored by Veliko Tarnovo's library, even if the investment of time, human and information resources to serve them could distract the library from major projects, such as the Eurostory 20<sup>th</sup> Century international project, which positions the library amongst the several European institutions that are engaged in documenting the cultural history of Europe. Being a 'social library' in that sense, it has invented a 'radiant' strategy towards deprived communities, which reflects to some extent the 'radiant' disposition of the city as well as the new mentality of the library of taking its resources to its users. Such developments of the library expands the scope of 'access for all' in general and gives opportunities for further research in the anthropology of today's public libraries in terms of serving the hidden human groups that exist everywhere in the world. The library products that have been discussed are good examples of deliberate and thoughtful approaches to 'difference'. The research demonstrates the complex and fluid structure of library products and their ability to expand endlessly based on user needs and circumstances. For example, the library products for deprived communities that were reported on have made equal efforts on the supplying of literature as well as on the quality of place, experience, communication, discussions, instruction, leisure, sense of belonging to the community. The concept of information provided by libraries exceeds the paper and digital discourses and turns to knowledge acquisition for life, for human values, for survival strategies, for human dignity and the extension of human rights to people without legal rights (Alexandrov 2010).

In a context of one of the best-developed democracies, which ranks first in the Index of Democracy (The Economist Intelligence Unit's Index of Democracy 2008), and seventh in the United Nations' Human Development Index (Human Development Report 2009), the City Library of Gothenburg has a clear policy towards supporting all kinds of open discussions and debates

within its walls. A library in a country with a Freedom of the Press Act from 1766 (Fridell and KL-skribenten 2008) its entire approach is about transparency, freedom of thought and expression, civic activity and control over Government institutions. It is worth noting that the City of Gothenburg is one of several European pilot cities taking part in the Euro Petition Project which open the opportunities of each European citizen to propose an idea or a project and to launch an e-petition. The outcome of such acts will directly influence the process of decision-making in Europe. The 'mosaic' strategy or the 'corner' structure of the library, as described in the case study, make it possible for a variety of publics to find their place in the library – the 'microcosm of the city'. The chosen library products widen the scope of library's 'access for all' policy and 'politics of difference' approach. As a result the library reaches the most active and alert sectors of society, including scientists, university professors and business people. The anthropological profile of the public library thus stretches and incorporates previously ignored public library user groups. The advanced library products invented and offered by the library go beyond paper and electronic information and include a proper environment, direct participation in public matters through debates, experiences, events, communication and a sense of belonging.

It could be advanced that the 'politics of difference' is a new and most important nuance of the traditional 'access for all' policy. The 'politics of difference' as mentioned before requires a new mentality and skills, a proactive approach and a willingness to constantly create new diverse products. It is obviously a big change for libraries, which is why it is necessary to reflect on the ways libraries could meet the new challenges.

As public spaces in a context of neo-liberal regimes and economic crisis libraries often experience financial difficulties. The ongoing debate about the disappearance of the book and the future of the libraries contributes to the insecurity of the library sector. The reactions of the libraries are quite diverse. Some fight for a new place in the society, others are still sentimentally attached to their traditional role, as discussed during the IFLA Congress in 2009.

The chosen case studies are examples of a demand-oriented managerial approach which have succeeded in getting additional funds through a combination of alternative sources. These include funding for national, European and international projects and partnerships with other cultural, information and public bodies, as well as with science institutions and universities, NGOs and private companies. The Regional Library of Veliko Tarnovo is managed by an experienced business manager who shared that "he runs it like a company" (Alexandrov 2010). Another example, the successful Aarhus Public Libraries have about 200 partners. Through such an attitude libraries are able to improve and refresh their collections, buildings, amenities and facilities and to raise their performance indicators while broadening their agendas, products, user communities, experiences offered and communication opportunities. Through



their increasing A2K activities, both of the libraries studied in this research have turned themselves into milieus of knowledge, life-long learning, courage and inspiration in a complicated world.

At the same time the two libraries brand themselves as institutions that are in synchrony with their municipality and national agendas, as multitaskers and spaces where ‘there is always something going on’ (Gothenburg 2010). They also serve as ‘third place’ in people’s lives or as a ‘second home’ for isolated communities (Alexandrov 2010). Both libraries’ participate in most inclusive cultural events like local and international festivals making them appealing to tourists and visitors. This way such libraries strengthen their symbolic capital on the maps of their cities and their position as hubs of vitality on their urban landscape. The added value from the flexibility of these libraries is increased public trust and support. Both libraries have succeeded in convincing their fellow-citizens and relevant municipalities of the crucial role that they play in their cities. As a consequence of this heightened visibility, both are in the process of being rebuilt and/or extended.

## Conclusions/Results

‘Access for all’ through ‘politics of difference’ could be considered as an important strategy for public libraries today. These issues have implications with regard to:

1. Human capital;
2. Social capital and social cohesion;
3. Inclusion and direct democracy;
4. Spreading of culture of knowledge;
5. Accumulation and circulation of information, knowledge and ideas;
6. Re-imagining of the libraries;
7. Gaining of public support for the libraries; and
8. Libraries taking part in the redistribution of money within a society.

Two innovative strategies, developed in completely different environments, in response to different urgencies and priorities have been presented in this case study. New dimensions of library products have been discussed in detail. The transformation of library profession has also been reflected on as well as the advanced libraries management styles. This study has examined two diverse situations with respect to how they provide ‘access for all’ while recognizing and responding to the ‘politics of difference’. Ultimately, the studies provide information that could be useful for other libraries wishing to tackle the issues of ‘access for all’ within a philosophy of the ‘politics of difference’.

## Acknowledgements

Many thanks to all the librarians at both libraries who provided information to support this research, especially to:

Ivan Alexandrov, Director, Kalina Ivanova, Deputy Director, and Valentina Petrova, Chief Librarian, Buzludga Branch of the Regional Public Library "P. R. Slaveikov"; and

Maria Nilson, Events Programs, Daniel Backman, Librarian-in-charge, Europe Direct and Tina Hedegard, Children's Librarian of Gothenburg City Library:

## Credits

Figure 1. Bulgaria adapted from [www.lonelyplanet.com/maps/europe/bulgaria/](http://www.lonelyplanet.com/maps/europe/bulgaria/) by Paul Gibbs, Educational media Services, UWI, Cave Hill.

Figure 2. Sweden adapted from [www.lonelyplanet.com/maps/europe/sweden/](http://www.lonelyplanet.com/maps/europe/sweden/) by Paul Gibbs, Educational media Services, UWI, Cave Hill.

## References

- Alexandrov, I. Personal interview. 2010.
- Allred, J. "The Purpose of the public library: the historical view." *Library History*, 2 (1972): 185.
- American Library Association. *Office for Diversity*. 2011. [www.ala.org/ala/aboutala/offices/diversity/index.cfm](http://www.ala.org/ala/aboutala/offices/diversity/index.cfm) [Mar. 2011].
- Backman, D. Personal interview. 2010.
- Bender, K. "Library services for newcomers to Canada: embracing cultural diversity." *Information for Social Change*, 26 (2007): 90-93.
- Catts, R. and Lau, J. *Towards Information Literacy Indicators: Conceptual Framework Paper*. Paris: UNESCO, 2008.
- City Library of Amsterdam. <http://www.oba.nl> [Mar. 2011].
- Economist Intelligence Unit, The. *The Economist Intelligence Unit's Index of Democracy*. 2nd ed. [London: The Economist], 2008.
- Epstein, S. *Inclusion: The Politics of Difference in Medical Research*. Chicago: U of Chicago P, 2007.
- Euro Petition Project*. 2010. <http://Europaforslag.se/> [Mar. 2011].
- Foucault, M. *Discipline and Punish: The Birth of the Prison*. Harmondsworth: Penguin, 1991.
- Fridell, M. and KL-skriventen, Katarina Loof. *The Swedish Government at Work*. Stockholm: AB Danagards Grafiska, 2008.
- Giroux, H. A. "Literacy, pedagogy, and the politics of difference." *College Literature*, 19.1 (1992):1-12.

- Dynamo*. Gothenburg City Library. [www.goteborg.se/bibliotek](http://www.goteborg.se/bibliotek) [Mar. 2011].
- Europe Direct*. Gothenburg City Library. [www.goteborg.se/bibliotek](http://www.goteborg.se/bibliotek) [Mar. 2011].
- The Entrepreneur Corner*. Gothenburg City Library. [www.goteborg.se/bibliotek](http://www.goteborg.se/bibliotek) [Mar. 2011].
- Grillo, R. *Pluralism and the Politics of Difference: State, Culture, and Ethnicity in Comparative Perspective*. Oxford: Oxford UP, 1998.
- Gulati, A. "Diversity in librarianship: The United States perspective." *IFLA Journal*, 36.4 (2010): 288-293.
- Harvey, D. "Class relations, social justice and the politics of difference." Keith, M. and Pile, S., eds. *Place and the Politics of Identity*. London: Routledge, 1993.
- Hepworth, M. and Clayton, N. *Public Libraries in the Knowledge Economy*. London: Local Futures Group, 2006.
- Humphrey, J. C. "Disabled people and the politics of difference." *Disability and Society*, 14.2 (1999): 173-188.
- IFLA. *Strategic Plan*. 2011. <http://www.ifla.org/en/strategic-plan> [Mar. 2011].
- IFLA. [www.ifla.org/](http://www.ifla.org/) [Mar. 2011].
- Ivanova, K. *Regional Public Library "P.R.Slaveikov"*. Sofia: Prosveta Publishing House, 2009.
- Jackson, J. *Arhus Public Libraries – Embracing Diversity, Empowering Citizens in Denmark*. Washington: Council on Library Resources, 2005.
- Kelly, T. *History of Public Libraries in Great Britain, 1845-1965*. London: Library Association, 1973.
- Larsen, J., Jacobs, D. and Vlimmeren, T. *Cultural Diversity: How Public Libraries Can Serve the Diversity in the Community*. Paper presented at ALIA, 2004. 2003. <http://conferences.alia.org.au/alia2004/pdfs/vlimmeren.t.paper.pdf> [Mar. 2011].
- Manchester City Council. *Libraries*. 2011. [www.manchester.gov.uk/libraries/central](http://www.manchester.gov.uk/libraries/central) [Mar. 2011].
- Makinen, I., ed. *Finnish Public Libraries in the 20th century*, Tampere: Tampere UP, 2001.
- McCarthy, C. *Race and Curriculum: Social Inequality and the Theories and Politics of Difference in Contemporary Research on Schooling*. Bristol: The Falmer Press, Taylor & Francis, 1990.
- Mommaas, J. T. "New strategies in urban development." Verwijnen, J. and Lehtovuori, P., eds. *Creative Cities, Cultural Industries and the Information Society*. Helsinki: UIAH Publications, 1999.
- Noorani, H. and Mokhtari, H. "Green gift plan: Building small libraries in public places in Mazandaran Province Iran." *IFLA Journal*, 35.4 (2009): 335-340.
- Permeke Openbare Bibliotek*. [www.uitinvlaanderen.be/agenda/a/bibliotheek-permeke/A2E0F483-F689-3392-84B19798985D0955](http://www.uitinvlaanderen.be/agenda/a/bibliotheek-permeke/A2E0F483-F689-3392-84B19798985D0955) [Mar. 2011].
- Powell M. "Chetham's Library." *Manchester Region History Review*, 2.9 (1988): 25.
- Old People's House. *Our Home*. VelikoTamovo, Bulgaria: 2010. E-newsletter.
- Regional Public Library, "P. R. Slaveikov"*. [www.libraryvt.com](http://www.libraryvt.com) [Mar. 2011].
- Roach, P. and Morrison, M. *Public Libraries, Ethnic Diversity and Citizenship*. Coventry: U of Warwick, Centre for Research in Ethnic Relations, 1988.
- Skot-Hansen, D. "The public library between integration and cultural diversity." *Scandinavian Public Library Quarterly*, 35.1 (2002): 12-13.
- Seattle Public Library*. [www.spl.org](http://www.spl.org) [Mar. 2011].
- Sello Library. [www.espoo.fi/sellonkirjasto](http://www.espoo.fi/sellonkirjasto) [Mar. 2011].
- Sloan, M. "Developing a good practice guide on library services for older people." *APLIS*, 22. 2 (2009): 48-57.

- Sofia City Library*. [www.libsofia.bg/en/modules/news/](http://www.libsofia.bg/en/modules/news/) [Mar. 2011].
- Tise, E. R. "Libraries Driving Access to Knowledge. Acceptance Speech." World Library and Information Congress: 75th IFLA General Conference and Council, Milan. 2009. [www.ifla.org/files/hq/presidents-program/acceptance-speech-et.pdf](http://www.ifla.org/files/hq/presidents-program/acceptance-speech-et.pdf) [Mar. 2011].
- Nordic Public Libraries 2.0. *Agenda for the New Library*. Larsen, J. H. ed., et al. Copenhagen: Danish Agency for Libraries and Media, 2010.
- UNDP. *Human Development Report 2009 – HDI Rankings*. 2009. <http://hdr.undp.org/en/statistics/> [Mar. 2011].
- UNESCO. *Information for All Program*. 2010. [http://portal.unesco.org/ci/en/ev.php-URL\\_ID=21290&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/ci/en/ev.php-URL_ID=21290&URL_DO=DO_TOPIC&URL_SECTION=201.html) [Mar. 2011].
- Veliko Tarnovo city. [www.veliko.co.uk](http://www.veliko.co.uk) [Mar. 2011].
- Weedon, C. *Feminism, Theory and the Politics of Difference*. Oxford: Blackwell, 1999.
- Wilmsen, E. N. and McAllister, P. A. *The Politics of Difference: Ethnic Premises in a World of Power*. Chicago: U of Chicago P, 1996.
- Young, I. M. "The Ideal of Community and the Politics of Difference." *Feminism and Community*. Philadelphia: Temple UP, 1995.
- Кирова Е. *История на библиотеките*. София: Наука и Изкуство, 1975.



# Using Web 2.0 to Make Libraries More User-Oriented: Outcomes from a Case Study at Loughborough University Library (UK)

Jenny Narborough

*Faculty E-learning Officer (Engineering)*

Ruth Stubbings

*Head of Academic Services*

Graham Walton

*Head of Planning and Resources*

*Loughborough University, Loughborough, Leicestershire*

## Introduction

In her presidential address, the 2009-2011 IFLA President, Ellen Tise indicated that *Libraries Driving Access to Knowledge (A2K)* would be the theme to inform her term of office. Tise identified various strands of this theme which libraries and librarians need to address in order to ensure that effective A2K takes place, one of which is the driver that “libraries and librarians must become more user-oriented by:

- Bringing libraries and their resources to the users;
- Empowering users through information literacy, social networking, etc.;
- Enabling access to information (a paradigm shift from a custodial approach); and
- Facilitating the full participation of all citizens in societal activities” (Tise 2009).

This theme is also supported by Casey and Savastinuk (2006) when they discuss the concept of Library 2.0 and argue that readers should be heavily involved in the evaluation and selection of services, both physical and electronic on offer from libraries. They also feel that technology, such as virtual reference desks, personalisation of library catalogues and blogs can help libraries become more user-oriented.

There are a range of complex and evolving social, political and technological factors which make the future world of libraries challenging. These include a:

- Widening participation agenda in UK (United Kingdom) Higher Education;
- Growth of digital media;
- Greater emphasis on enhanced learning and teaching; and
- More independent and collaborative learning.

Loughborough University is a UK research and teaching intensive university located in the Midlands. It is based on a 437 acre single-site campus, one of the largest campuses in Europe. It has nearly 14,000 undergraduate, post-graduate taught and postgraduate research students distributed across three faculties: Engineering; Science; and, Social Sciences and Humanities.

The University strives to be a high achiever in both research and teaching. The quality of the University's research was confirmed by the results of the 2008 UK Research Assessment Exercise (RAE). Every department was found to be undertaking research that is internationally recognised, with a significant number judged to be 'world leading'. Learning and teaching are also seen as being very important and have consistently been rated excellent in independent assessments, placing the University towards the top of the UK teaching quality tables. These include being:

- Named by the Sunday Times as the 2008/09 UK University of the Year;
- Ranked 9th out of 118 institutions in the 2011 UK Guardian University Guide; and being
- Voted the UK's 'Best Student Experience' in the prestigious Times Higher Awards for the past 4 years (2006–2010).

Sport also has a high profile at Loughborough University and the University is positioning itself to be in the top 10 university sport campuses in the world.

There is a single University Library on the campus with 87 members of professional and non-professional staff; 55 full-time equivalents. Library staff is divided into 9 teams, which includes the team with overall responsibility for e-learning in the University. The building presently used as the Library was opened in 1980. It has a footprint of 7,777 square metres spread over three floors with 900 study places, including 140 workstations. The Library provides access to over 500,000 books, 681 print journal subscriptions and approximately 19,000 e-journal subscriptions. It designs and delivers both module specific and generic information literacy and study skills teaching. In recent years it has incorporated Twitter, digital video, blogs, podcasts and Google Apps into its services.

The Library invests significant time and effort into gathering data on its user population. Data collection methods include:

- Cumulative statistics that are collected and discussed by the Library Management Group on a quarterly basis. For example,
  - Data generated by library systems includes library footfall (traffic), book circulation statistics and the use of electronic resources;
  - Records are maintained of the number and type of enquiries, building occupancy at key times and attendance at teaching sessions provided by the Library;
- Annually undertaking two investigative studies, one exploring aspects of how the Library supports learning and the other on research support. For example, the learning study in 2008 was based on the information used in assessed work by students (Jones, Stubbings and Walton 2008);
- A general user survey is completed every three years, with the most recent being in 2009 (Walton 2010); and
- Working closely with the Department of Information Science whose staff and students investigate services offered by the Library, for example Master students dissertations (ter Haar 2010).

The purpose of this chapter is to explore how the Library has used a range of tools to become more user-oriented, so that readers are empowered to make the most of the variety of information resources and tools available. The chapter will focus on one particular study that investigated the use of Web 2.0 technologies by students in their self-directed learning. The intelligence that emerged from the investigation was used to inform how the Library can become more user-oriented. This work represents a single case study. Its findings and conclusions could inform other libraries as long as its limitations are taken into consideration.

An underlining driver emerging from this case study is the importance of gathering data and evidence about library users. If library services are to achieve user orientation, they need accurate data on users' views and needs. This case study generated an insight into how Web 2.0 is being used by students at one university and will be used to inform library development at that institution.

The communication and collaboration abilities that Web 2.0 brings have been available for users of the World Wide Web (Web) for many years and have become increasingly popular, particularly with the younger generation. Tim Berners-Lee, the inventor of the Web claims this is how he envisaged the Web would be. He points out that the functionality of what is recognised as Web 2.0 has been available since the onset of the Web. The recent advances with the Semantic Web have made Web 2.0 services far more accessible. The Semantic Web provides a common framework that allows data to be shared and reused across application, enterprise, and community boundaries (W3C 2010). As university libraries seek to maintain relevance with students, there is an imperative to discover how Web 2.0 is supporting students in their independent learning and how this can inspire library services.



## Methodology

For the Web 2.0 study at Loughborough University a project team was created which included representatives of several stakeholders with an interest in Web 2.0 and its' impact on learning. This included members from the Student's Union, the E-learning team and the Library. The project members provided knowledge and expertise that could help direct the project and take the findings forward.

The study took place over a 6 month period. There was no funding specifically allocated for the work and it was undertaken within peoples' existing workloads. Time intensive research methodologies could not be undertaken so it was decided to choose data collection approaches that would be straightforward to create and implement; a methodology that would require a short amount of time for responders to complete; and an approach that did not need extensive input to evaluate. The two phases of data collection were an initial short survey to gather some level of insight followed by a more detailed full survey.

An initial short online survey was made available on the University's Virtual Learning Environment (VLE), called LEARN, to gauge an initial overview of where Web 2.0 figured in students' learning. Students were asked three questions:

- Which is your favourite Web 2.0 site?
- What do you use it for? and
- How often do you use this site during term time?

There were 99 responses, which provided an indication of the breadth of Web 2.0 sites in use by the students, the purpose of use and also the popularity of certain sites. The results showed that:

- 80% of respondents chose Facebook as their favourite site;
- 40% of respondents used Web 2.0 sites for academic purposes; and that
- 80% access Web 2.0 at least once daily or more frequently.

The responses confirmed that students were familiar with the term Web 2.0 and that they were interacting with Web 2.0 to support their studies. This provided the justification for a more detailed investigation to ascertain how prevalent this behaviour was and whether the Library and the E-learning Team should be providing access and support in the use of these tools. The results from the short survey were used to develop a more substantive online survey where the Web 2.0 applications identified were concentrated on in detail.

The full survey was developed using the Bristol Online Survey software (BOS). It investigated students' perspectives on:

- Which Web 2.0 sites were used for academic or social purposes;
- How regularly respondents used the sites;
- Which were the respondents favourite Web 2.0 sites;
- What were the main reasons for using web 2.0 sites for academic purposes;
- How the respondents accessed web 2.0 sites; and
- What Web 2.0 features they would like provided by the University.

The survey also collected demographic data including age, gender, year of study, faculty and region of origin.

The full survey was piloted with members of the Students' Union Executive to determine the understanding of the terminology, how long it would take to complete, and whether it would provide good data to analyse. Feedback from the pilot was taken on board and minor amendments were made to the survey.

The full survey was available for completion for three weeks and an incentive of a prize draw for a £25.00 iTunes voucher was offered to encourage participation. In UK Higher Education students are regularly asked to provide feedback both by the Government and their local institutions. The project team was aware that students may be suffering from survey fatigue so it was reluctant to heavily promote the survey. The survey was promoted to students via the electronic student noticeboard, the Library Blog and General News and announcements on LEARN.

## Results and Discussion

This case study produced interesting results on student use of Web 2.0 but the small scale of the project means that it is not generalizable. Limitations include the small sample size; the survey being a single site case study; the use of key terminology being unclear e.g. 'constant' and one question focused specifically on LEARN, rather than being open and including all available services. Despite these limitations, the findings provide a clear snapshot of how undergraduates at Loughborough University are currently using Web 2.0 tools.

There were 178 responses to the full survey. This was a disappointing response rate as surveys from the library generally attract a higher response rate of over 600. It is assumed the lower response rate is because the survey was less heavily advertised than those of the past.

When looking at the demographics of the 178 respondents, it can be seen that 82% of the respondents were undergraduates as illustrated in Figure 1.

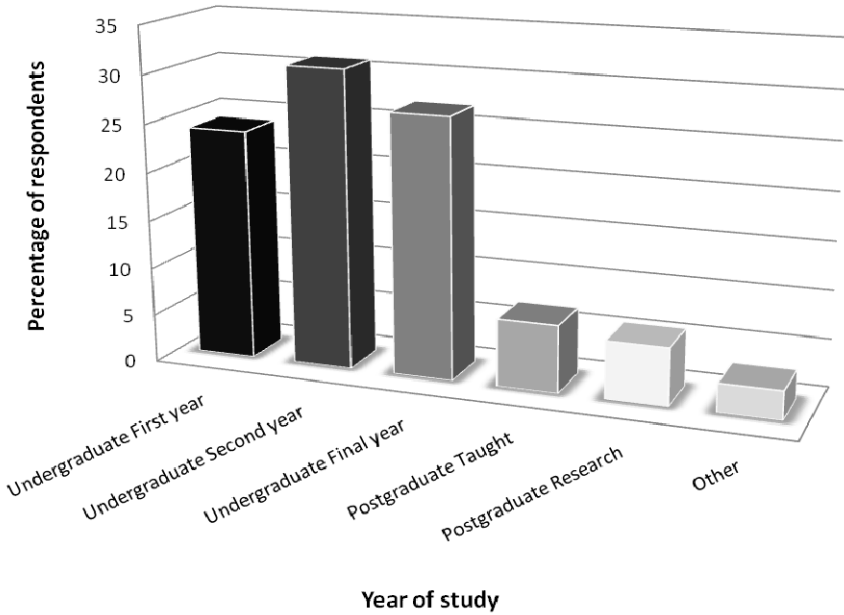


Figure 1: Percentage of respondents by year

The survey asked the undergraduate respondents to indicate their year of study: 24% were first year, 31% were second year, and 27% were final year students. Normally responses to library surveys have the majority of respondents being from undergraduate first year. For this Web 2.0 survey there was a higher than normal proportion of second year responses. It is unclear why this occurred.

The spread of respondents across the three faculties was relatively even (Figure 2). This is surprising as the Social Sciences and Humanities (SSH) Faculty is twice the size of the other two faculties. Again it is unclear why there were fewer than expected respondents from this faculty. One reason could be that some subjects taught in SSH are less PC orientated as a result students in that faculty may be less likely to understand the terminology used in the survey, but there is no real evidence to support this.

Figure 3 shows that 73% of respondents fell into the age category of 18-21 years, which was reflected across all three faculties. This is not surprising as the majority of undergraduates at Loughborough University fall into the traditional 18-21 age category. It was disappointing that there were limited responses from the more mature student population so that the study could ascertain whether age impacts on the use of Web 2.0 tools.

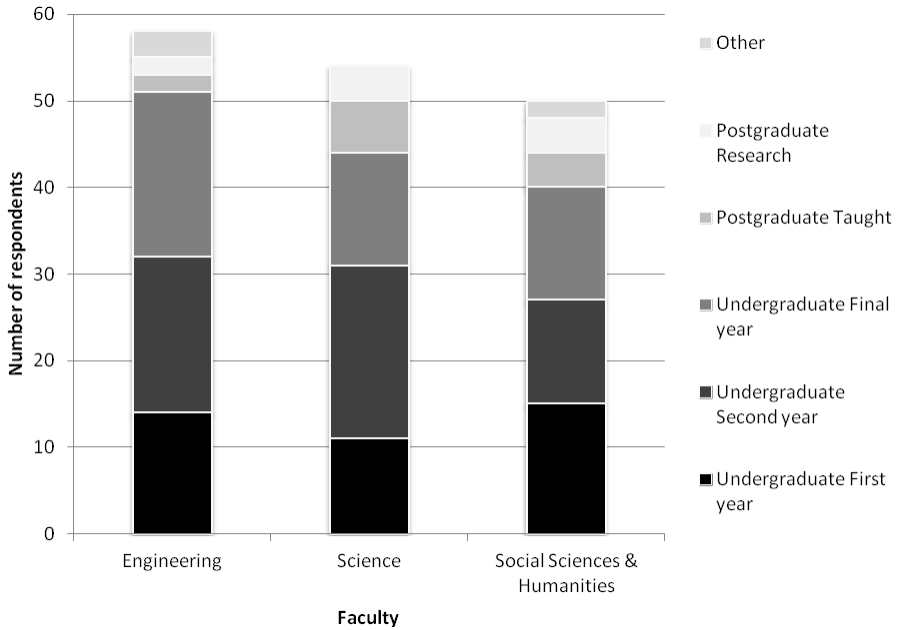


Figure 2: Number of respondents by Faculty

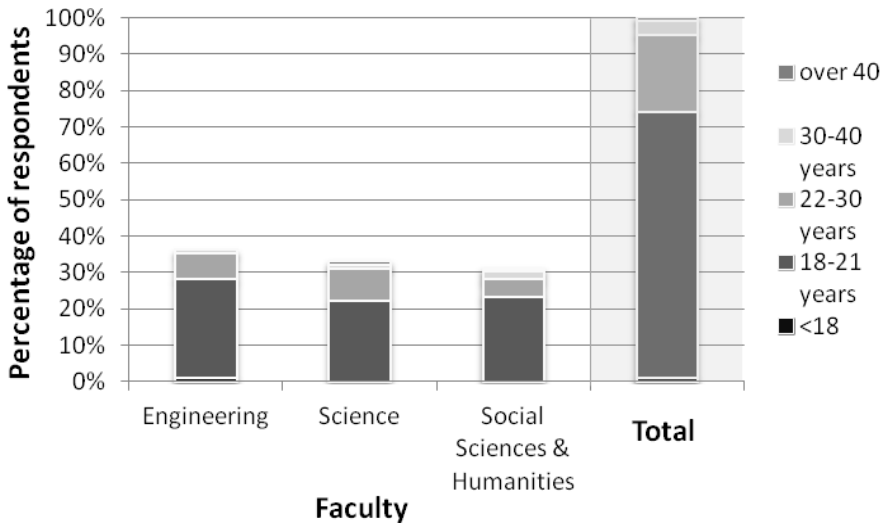


Figure 3: Percentage of respondents by age

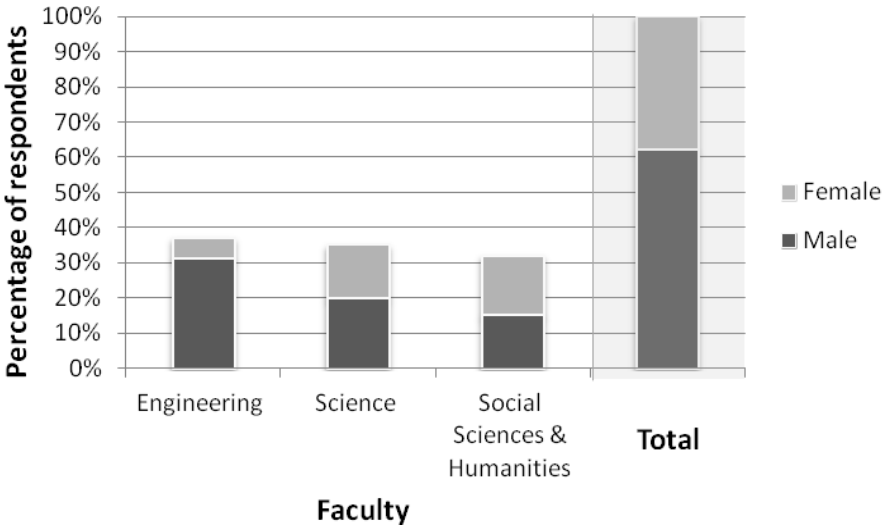


Figure 4: Percentage of respondents by gender

Figure 4 illustrates the breakdown of respondents by gender. Of the respondents, 62% were male and 38% were female. This is a satisfactory balance as the University’s male/female ratio is 5:2. It should be noted there was a much higher response rate from males from the Engineering Faculty, again this reflects the gender balance across that faculty.

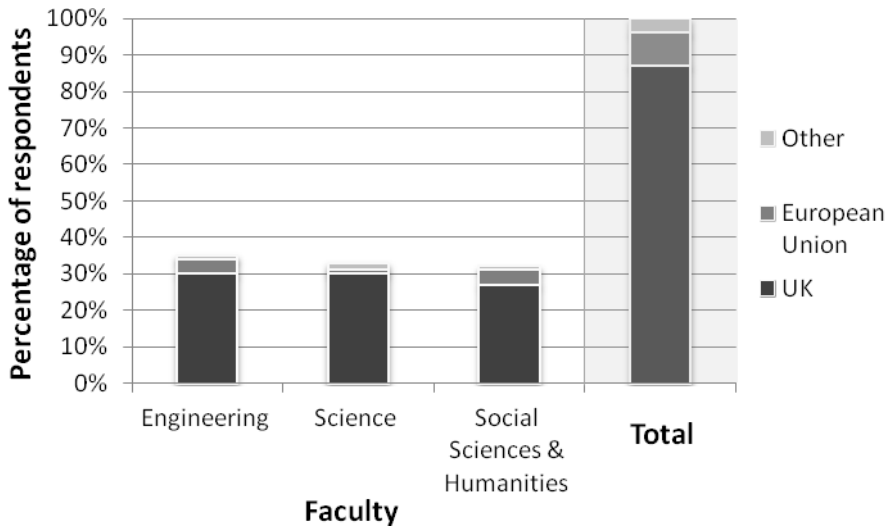


Figure 5: Percentage of respondents by region of origin

An area of disappointment was that only 13% of respondents were non-UK students. Figure 5 illustrates the breakdown of respondents by region and faculty. Approximately 25% of Loughborough University students are considered international students, so this response was lower than anticipated. However, the faculty response rate was similar across the three faculties. With this small response rate an exploration of Web 2.0 usage and cultural background was not possible.

To ascertain the types of Web 2.0 sites used by the student population, the survey listed nineteen common Web 2.0 sites. When completing the survey, respondents were asked to indicate:

- Which sites they used;
- The purpose of use (academic work, and/ or social life / sport); and
- Frequency of use.

The sites listed were a combination of those identified in the first short survey with additional suggestions from the E-learning team and Students' Union.

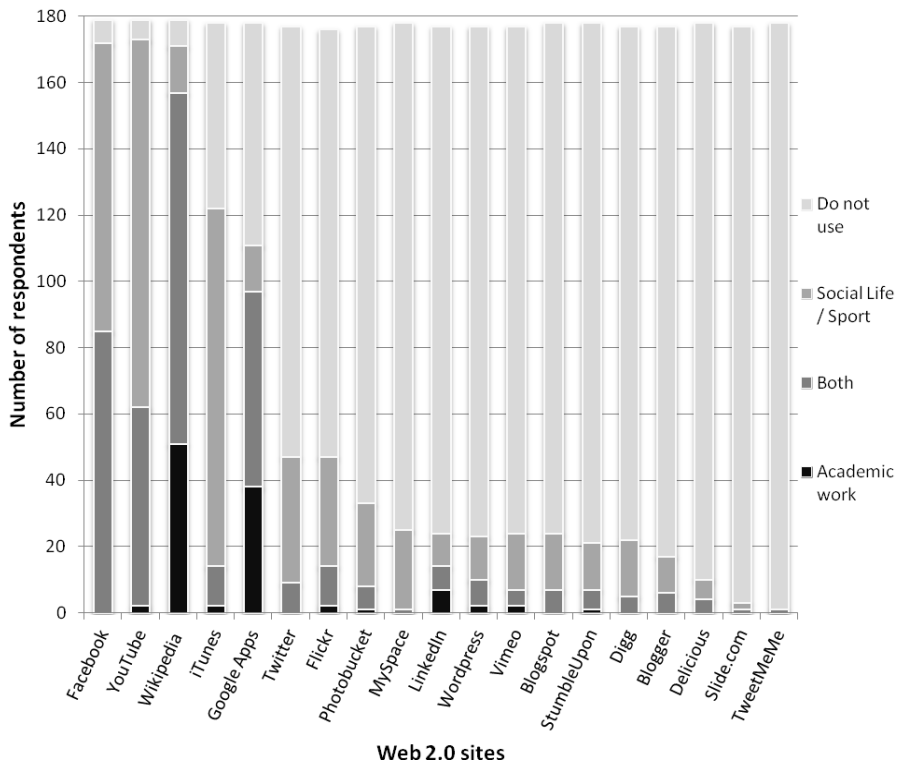


Figure 6: Reason for using Web 2.0 sites

From Figure 6 it can be seen that out of the nineteen applications listed, Facebook, YouTube and Wikipedia are the most heavily used sites by respondents. Sites with significantly less use but predominant social use included Twitter, Flickr and Photobucket. The survey asked if respondents used other Web 2.0 sites which were not listed. Twenty additional sites were noted, but only three sites were mentioned more than once, these were Deviantart, Tumblr and Livejournal. Therefore it can be assumed that the sites chosen by the survey team were key sites regularly used by students at Loughborough University.

The Web 2.0 sites used predominantly for social purposes only (but not exclusively) are YouTube, iTunes, Facebook, Twitter and Photobucket. The low use of Twitter contradicted results by the PEW report (Lenhart et al. 2010) which discovered that one third of their adult respondents regularly used Twitter. It is noted Wikipedia and Google Apps are used significantly more for academic work, and significantly less for social life. The comparison of use of sites by gender shows little difference in use by male and female students. There were five Web 2.0 tools which were used heavily for both academic and social purposes. Not surprisingly, these were Facebook, Wikipedia, iTunes, YouTube and Google Apps.

Facebook is a popular social networking tool that describes itself as a site that “helps you connect and share with the people in your life” (Facebook 2010). Respondents from the Web 2.0 survey were asked to identify their two favourite Web 2.0 sites of which Facebook was significantly the most popular, with 111 (62%) respondents ranking it as their top site. This reflects both the US and UK national trend for Facebook usage. Statistics from the PEW Research Centre indicates that Facebook is the “social network of choice” in the US (Lenhart et al. 2010). Statistics from Clickymedia (2010) show there were over 25 million active UK Facebook accounts in April 2010. Feedback from past library surveys and anecdotal evidence gained by walking through the Library had already highlighted that Facebook was heavily used by students. In the recent user survey conducted at Loughborough University concerns had been raised by a small number of students about the use of Facebook on Library PCs (Walton 2010). Requests were made for Facebook to be banned, so that library PCs would be free to be used for academic work. The Library was hesitant to ban the use of Facebook until it understood better how the application was used. Results from the survey show that Facebook is not used specifically for academic work alone but is used for both academic and social purposes by 48% of respondents. Those who use Facebook for academic purposes tend to use Web 2.0 sites in general to discuss academic work and find resources for their modules. Results from this survey imply that it would be inappropriate to ban the use of Facebook on library PCs as the site was being used for both academic and social purposes. It is also worth noting that social life and sport are integral parts of Loughborough University life and that they are seen as essential ingredients of the student experience.

Wikipedia is a “free, web-based, collaborative, multilingual encyclopedia” (Wikipedia unknown) that is written and edited by its users. Anecdotal evidence from lecturers in general, and at Loughborough University specifically, has suggested that students regularly use Wikipedia to gain a better understanding of their subject area when first undertaking an assignment. This was confirmed by a series of focus groups run by the Library in 2008 (Jones, Stubbing and Walton 2008). The focus groups attendees used Wikipedia as a starting point for gathering information but were very aware of issues of provenance and lecturers dislike of this resource. The focus group results were similar to those of Head and Eisenberg (2010). Figure 6 shows that students use Wikipedia regularly for academic purposes. 29% of respondents use it specifically for academic purposes, whilst 59% use it for social life/sport and academic work. In addition, Head and Eisenberg discovered that Engineering and Science students were more likely to use Wikipedia than their Social Science counterparts. Results of the Web 2.0 survey confirmed this tendency and illustrated that Engineering students were more regular users of Wikipedia than students from the other two Faculties.

iTunes is a free application that allows the organisation and sharing of audio and video resources (Apple Inc. 2010). It is heavily used for the sourcing of music, but high profile universities in America, such as MIT and the Open University in the UK, are using it to distribute teaching and learning resources through iTunesU. The Web 2.0 survey indicated iTunes is mainly being used for social life/sport (61%), but that a small percentage, (7%), of respondents use it for both social and academic purposes. Unfortunately, the survey did not ascertain the specifics on how and what iTunes resources were being used for in relation to academic work. Currently Loughborough University is not actively providing resources through this channel. Are students accidentally sourcing learning materials when seeking music or are Loughborough University lecturers directing their students to resources provided by other institutions via iTunes? This was not investigated as part of this study.

YouTube describes itself as “the world’s most popular online video community, allowing millions of people to discover, watch and share originally created videos” (YouTube unknown). The Web 2.0 survey indicates minimal use of YouTube for academic purposes only. It illustrates heavy use of YouTube for social life/sport by 62% of respondents, and 36% use it for social life/sport and academic uses. YouTube was the second favourite Web 2.0 web site of respondents. It was surprising that only 36% of respondents use YouTube for both social life/sport and academic uses, as lecturers are linking to more and more videos on YouTube to enhance student understanding of lecture material.

Google Apps describes itself as a “Reliable, secure online applications wherever you work” (Google 2010). Applications include email, calendar, collaborative document sharing (documents, spreadsheets, drawings and presenta-



tions), etc. The Web 2.0 survey illustrates 21% of respondents use Google Apps specifically for academic work, and 33% use it for social life/sport and academic work. These results were as expected due to the nature of the application and the growth of collaborative learning in UK Higher education institutions.

Eight Web 2.0 sites were looked at in more detail in terms of how often they were visited by the respondents, see Figure 7.

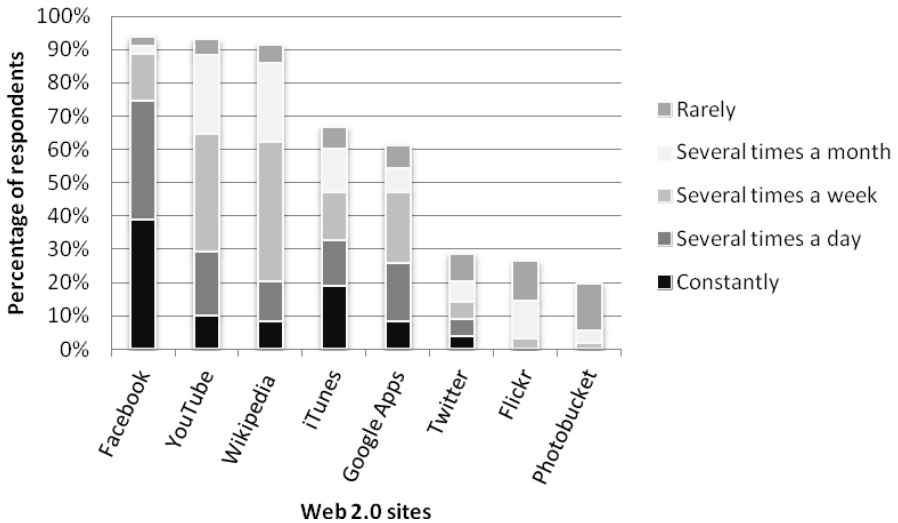


Figure 7: Frequency of accessing key Web 2.0 sites by percentage of users

Figure 7 shows that of the 96% of respondents who use Facebook, 41% use it constantly, 38% use it several times a day, and a further 15% use it several times a week. It is assumed that by constantly, the respondents meant that the application was permanently open on their desk top and they returned to it on a regular basis. However, this assumption should be further investigated to clarify what constantly means. This may explain the high visibility of Facebook on library PCs.

YouTube and Wikipedia are regularly accessed but less constantly than Facebook, with weekly or more frequent use of 69% and 68% respondents. On the other hand, a smaller number of respondents stated that they used iTunes and Google Apps, but of those, a significant proportion reported that they used these sites constantly.

The survey took a closer look at the use of Web 2.0 sites in relation to academic work, see Figure 8. Not surprisingly, because of the nature of the Web 2.0 sites, the results clearly indicate that the respondents mainly use them for finding information and discussing academic work with friends.

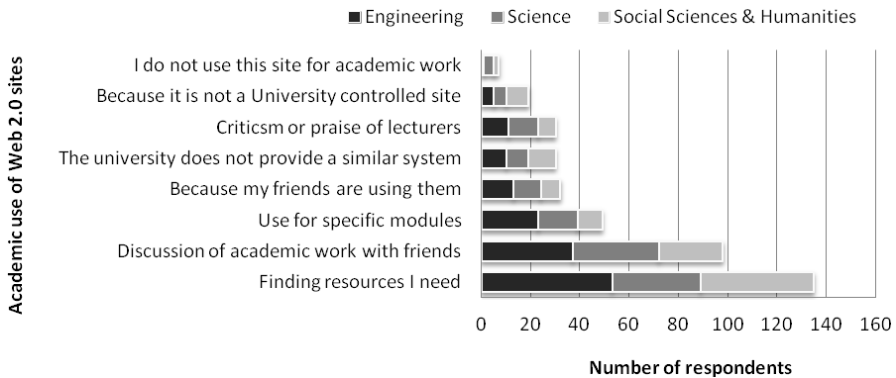


Figure 8: Faculty Academic use of Web 2.0 sites by number of respondents

Communities and collaboration on social networking sites and Web 2.0 provide an area for informal and unstructured learning to take place. Maloney (2007) reasons that “students will invest time and energy in building relationships around shared interests and knowledge communities.” Franklin and von Harmelen (2007) relate this to pedagogy stating these communities allow for “greater student independence and autonomy, greater collaboration and increased pedagogic efficiency.” In addition, Ipsos MORI (2008) claims that the “evidence shows that using these sites in education is more effective when the students set them up themselves; lecture led-ones can feel overly formal”. According to OCLC “The social Web is being created by opening the doors to the production of the Web, dismantling the current structures and inviting users in to create their content and establish new rules” (2007).

As discovered in the Loughborough University Web 2.0 survey students use these communities for both their university social lives as well as for academic communication. The evolution of Web 2.0 and beyond is likely to be subject to sizable changes in the way people access and interact with knowledge, in terms of information and technology. Institutions should be encouraging these informal social learning communities to evolve and thrive. Respondents were asked to indicate all the different ways they access Web 2.0 tools, see Figure 9.

The most popular ways to access Web 2.0 sites were from PCs provided by the University, either in the Library (81 respondents: 52 male, 29 female) or other PC labs (78 respondents: 55 male, 23 female). This together with the results on how respondents use Web 2.0 indicates that the use of Web 2.0 sites on University provided PCs should not be prohibited. Of the respondents, 157 of them regularly use their own laptop to access Web 2.0 sites. This reflects the findings of the PEW report (Lenhart et al. 2010), which discovered that adults under 30 years of age prefer to own a laptop rather than a desktop computer.

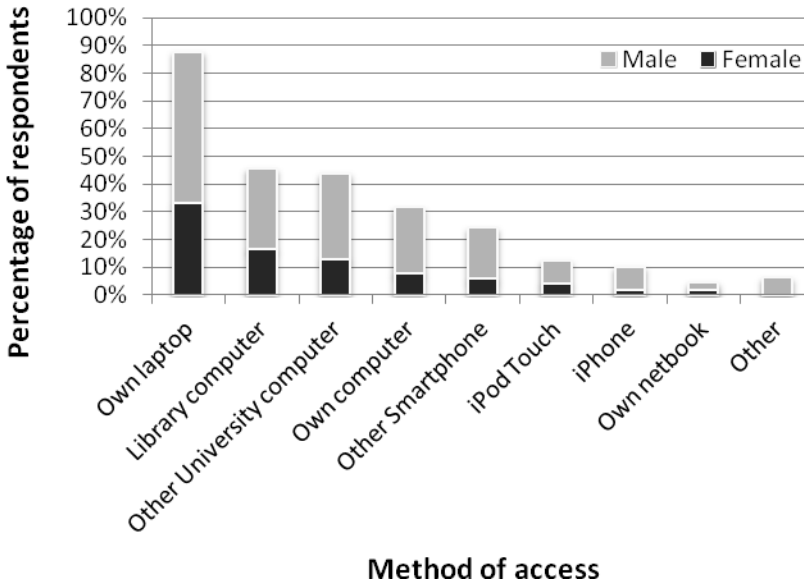


Figure 9: Method of access to Web 2.0 sites by gender

The Web 2.0 survey illustrates that there was far less use of hand held gadgets, e.g. smart phones to access Web 2.0 sites than laptops and PCs. This is contrary to the findings of the PEW project (Lenhart et al. 2010), where 35% of adults were reported as accessing the Internet via a mobile device. In terms of gender (see Figure 9), male students used hand held devices slightly more than female respondents to access Web 2.0 sites. It would be interesting to review this in 6 months to a years’ time to see if this trend has changed and whether the University should be optimising general services for Web 2.0 access.

As indicated by the PEW report, mobile devices are already important in accessing Web 2.0 applications but it notes that the most popular method of access remains the computer. At Loughborough University this level of use of mobile devices is not so apparent, however, it is expected that over the next few years the use of mobile devices to access Web 2.0 sites will increase. The Library needs to consider how to adapt services so they can be made more easily and effectively accessible by mobile devices. Further dialogue with readers is required to ensure appropriate advances and adaption of technology takes place.

Respondents were asked to identify Web 2.0 type features they would like provided by university systems. The majority of feedback related to features the students would like to see in LEARN. LEARN uses the course management system called Moodle, which provides options to incorporate Web 2.0 tools with modules. However, in many instances the Web 2.0 functions are not highly used or provided by the module tutors on LEARN.

The features the students would like to see provided by the University, especially in relation to LEARN fell into four key areas:

1. Easier student communication;
2. Provision of a greater variety of learning materials;
3. User interaction; links to other University systems; and a
4. Greater awareness for academic staff in how to make the most of the tools on offer.

The study highlighted how students are using technology in their learning. The results had implications for both the Library and Loughborough University. The study made it apparent that the majority of undergraduate students are using Web 2.0 to support their academic studies alongside their online social activities. Web 2.0 services that are particularly valued are Facebook, Wikipedia, iTunes, YouTube and Google Apps. The Web 2.0 surveys at Loughborough University indicate students would like more channels to be made available for communication, including via the VLE. A library's responsibility includes advising and supporting academics in their use of online technologies and an emphasis should be on the inclusion of incorporating appropriate Web 2.0 in teaching and learning. Collaboration and communication are of pedagogic importance to the learning cycle. In recognition of some of the social, political and technological factors challenging universities, these networking options should be encouraged in their online communities as well as in traditional teaching and learning environments.

## Interpreting the Findings

The findings of the survey have been informative in helping the Library and the E-Learning Team shape services to become more user-oriented for students. A range of recommendations (Barnett et al. 2010) were put forward for consideration by the University and the various stakeholders concerned with learning.

As indicated previously there was some pressure for students to be restricted in their use of Web 2.0 technologies on university library provided PCs. This study provided evidence that Web 2.0 makes a valuable contribution to learning. As a consequence, it would be a retrograde step for the Library to restrict access to this site from its PCs. The survey also indicates that libraries cannot rely on just one mechanism to gain feedback and in order to become user-oriented. Libraries need to use a variety of tools to interact with and become flexible and adaptable to a variety of stakeholders needs.

With regard to the concept of A2K, the library should be seeking to empower students with the skills to make effective use of Web 2.0 in their learn-

ing. There is already a well-developed and sophisticated information and study skills program at Loughborough University Library. The findings from several library surveys indicate the library should develop workshops on how Web 2.0 can be incorporated effectively into academic life.

There is also a need for library staff to take on an advocacy role to help academic staff become more user-oriented in helping student's access knowledge. One of the key findings from the study was that students perceive that some academic staff could make more effective and informed use of LEARN. Library staff work directly with departments and are ideally positioned to raise academic colleagues' awareness and confidence in making full use of the Web 2.0 features of LEARN.

The study did not generate data that informed how the university library's physical space should be developed in the context of Web 2.0. It can be extrapolated that if a university library is user-oriented then it should provide appropriate space for students when they need access to Web 2.0 technology. Habib (2006) has been contemplating how libraries should be interacting with students both in the physical and virtual world. His diagram (Figure 1) considers Web 2.0 technologies and their presence in a student's life, both in terms of social interaction, academic interaction and libraries.

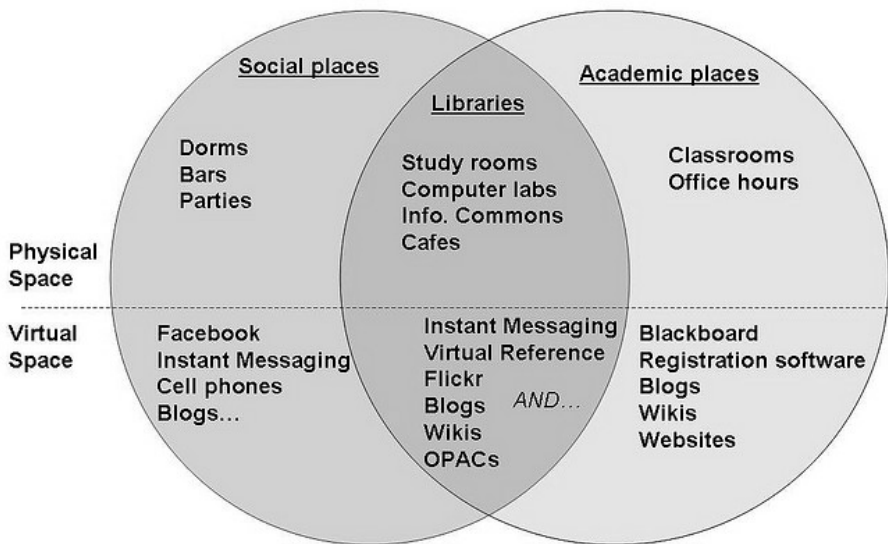


Figure 10: Academic Library 2.0 Concept Module Basic v2

Loughborough University Library has a large social learning space which was evaluated in an ethnographic study (Bryant, Matthews and Walton 2009). This provided evidence that students in this social learning space made extensive use of technology (and a surprisingly low use of print information).

It came as no surprise that the Web 2.0 survey evidences that Facebook has a high uptake by respondents and highly probably by Loughborough University students as a whole. Casey and Savastinuk argue that introducing Web 2.0 services can help libraries become more user-oriented. The Web 2.0 survey illustrates that student's are keen to discuss their learning with each other online, but express disappointment that tools to facilitate discussion are not always provided with their modules on the VLE. The Library is always seeking to provide appropriate communication channels for use both by and with the user population. Various on-line mechanisms have been set up to achieve this including a Library Blog, a Twitter account, and an 'Ask the Librarian' email account. None of these approaches have been successful in eliciting substantial, meaningful dialogue with students, nor has there been considerable 'visible' dialogue between students. Currently, the Library uses Facebook to give access to various library systems, not to promote services and interact with its readers. If a large percentage of Loughborough University students use Facebook 'constantly' then the Library should consider in more depth its use of this application to support students in their learning. The Library needs to undertake further studies to ascertain how students would prefer to communicate with the Library.

## Conclusion

How do libraries and librarians improve their provision of access to knowledge and become more user-oriented? The physical space and atmosphere of libraries are being adapted to reflect the importance of collaboration and communication as part of the learning process and university life experience. Offering areas for interaction to take place both online and face-to-face (in addition to more traditional quiet areas) will support independent study.

Library spaces should be designed to inspire learners to discover and innovate, to enable collaboration and interaction to take place. The LASSIE report states that "libraries need to be brave, to relax their rules and to encourage mass participation in the social library ..." (Secker 2008).

Through research, investigation and data collection, libraries will have a better understanding of their role and the importance of the traditional and new services they provide. Libraries must accept that Web 2.0 is an integral part of the majority of today's students' independent study and university life experience and make provision to support its use. Libraries must consider enabling access to appropriate services remotely to provide empowerment to bring the

library to the users and widening participation. Libraries should welcome the growth of digital media and enable readers to utilize library spaces in conjunction with the media.

Libraries should empower librarians through encouragement and training to welcome and enjoy both the physical and virtual spaces available to them as part of their working environment. Library staff need to interact and generate dialogue with their readers in both worlds to ensure appropriate and effective access to knowledge for today's students.

## Credits

Figure 10: Michael Habib (2006) [www.flickr.com/photos/habibmi/222296001](http://www.flickr.com/photos/habibmi/222296001)

## Acknowledgements

The authors would like to thank other members of the Project Team for their work on this study: Lee Barnett, Elaine Collis, Frank Parry, Chris Peel and Charles Shields.

## References

- Apple Inc. "What is iTunes?" 2010. <http://www.apple.com/itunes/what-is/> [Mar. 2011]
- Barnett, L. et al. *Web 2.0 and Loughborough University Students*. Loughborough: Loughborough University Library. 2010. [www.lboro.ac.uk/library/about/PDFs/Web2.0tools.pdf](http://www.lboro.ac.uk/library/about/PDFs/Web2.0tools.pdf) [Mar. 2011]
- Bryant, J., Matthews, G. and Walton, G. "Academic libraries and social and learning space: a case study at Loughborough University Library." *Journal of Library and Information Science*, 41.1 (2009): 7-18.
- Casey, M. E., Savastinuk, L. C. "Service for the next-generation library." *Library Journal*, January (2006). [www.libraryjournal.com/article/CA6365200.html](http://www.libraryjournal.com/article/CA6365200.html) [Mar. 2011].
- Clickymedia. *UK Facebook User Statistics*. April 2010. [www.clickymedia.co.uk/2010/04/uk-facebook-user-statistics-april-2010/](http://www.clickymedia.co.uk/2010/04/uk-facebook-user-statistics-april-2010/) [Mar. 2011].
- Facebook. *Facebook: Login Page*. 2010. [www.facebook.com/](http://www.facebook.com/) [Mar. 2011].
- Franklin, T. and von Harmelen, M. *Web 2.0 for Content Creation for Learning and Teaching in Higher Education*. 2007. London: JISC. [http://octette.cs.man.ac.uk/~mark/web2.0\\_for\\_comment.pdf](http://octette.cs.man.ac.uk/~mark/web2.0_for_comment.pdf) [Mar. 2011].
- Google. (2010) *Google Apps*. 2010. [www.google.com/apps/intl/en-GB/business/index.html](http://www.google.com/apps/intl/en-GB/business/index.html) [Mar. 2011].
- Habib, M. *Academic Library 2.0 Concept Model Basic v2*. 2006. [www.flickr.com/photos/habibmi/222296001](http://www.flickr.com/photos/habibmi/222296001) [Mar. 2011].
- Head, A. J. and Eisenberg, M. B. "How today's college students use Wikipedia for course-related research." *First Monday*, 15.3. 2010.

- <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/2830/2476/> [Mar. 2011].
- Ipsos MORI. *Student Experiences of Technology and E-Learning*. 2008. [www.jisc.ac.uk/media/documents/publications/bpstudexpv1.pdf](http://www.jisc.ac.uk/media/documents/publications/bpstudexpv1.pdf) [Mar. 2011].
- Jones, B., Stubbings, R. and Walton, G. *Use of Information for Assignments by Loughborough University Students*. Loughborough: Loughborough University Library. 2008. [www.lboro.ac.uk/library/about/PDFs/Infousestudy2008.pdf](http://www.lboro.ac.uk/library/about/PDFs/Infousestudy2008.pdf) [Mar. 2011].
- Lenhart, A. et al. *Social Media & Mobile Internet Use Among Teens And Young Adults*. PEW Internet & American Life Project. Washington: PEW Research Centre, 2010. [www.pewinternet.org/Reports/2010/Social-Media-and-Young-Adults.aspx](http://www.pewinternet.org/Reports/2010/Social-Media-and-Young-Adults.aspx) [Mar. 2011].
- Maloney, E. "What Web 2.0 can teach us about learning." *Chronicle of Higher Education*, 53.18 (2007): B26.
- OCLC. *Sharing, Privacy and Trust in Our Networked World*. 2007. [www.oclc.org/reports/pdfs/sharing.pdf](http://www.oclc.org/reports/pdfs/sharing.pdf) [Mar. 2011].
- Secker, J. "Social software and libraries: a literature review from the LASSIE project." *Program: Electronic Library and Information Systems*, 42.3 (2008): 215-231.
- ter Haar, N. *Information-Seeking Behaviour of Undergraduate Students: Google vs. Library Resources*. B.Sc. Dissertation, Loughborough: Loughborough University, 2010.
- Tise, E. *Presidential Theme: Libraries Driving Access to Knowledge (A2K)*. IFLA. 2009. [www.ifla.org/president/theme](http://www.ifla.org/president/theme) [Mar. 2011].
- Walton, G. *Loughborough University Library User Survey: 2009*. Loughborough: Loughborough University Library. 2009. [www.lboro.ac.uk/library/about/PDFs/usersurvey2009.pdf](http://www.lboro.ac.uk/library/about/PDFs/usersurvey2009.pdf) [Mar. 2011].
- . *Use of Library Space at Loughborough University: Results from a 2005-2006 User Survey*. Loughborough: Loughborough University Library. 2006. [www.lboro.ac.uk/library/about/PDFs/Space%20survey%20report.pdf](http://www.lboro.ac.uk/library/about/PDFs/Space%20survey%20report.pdf) [Mar. 2011].
- Wikipedia. 2010. <http://en.wikipedia.org/wiki/Wikipedia> [Mar. 2011].
- W3C. *W3C Semantic Web Activity*. 2010. [www.w3.org/2001/sw/](http://www.w3.org/2001/sw/) [Mar. 2011].
- YouTube. *About YouTube*. N.d. [www.youtube.com/t/about](http://www.youtube.com/t/about) [Mar. 2011].





# OA to Knowledge: Perceptions of UWI Researchers on the St. Augustine Campus, Trinidad and Tobago

Marsha Winter

*Librarian I*

and

Stella Sandy

*Librarian III*

*The Alma Jordan Library, University of the West Indies, St. Augustine Campus, Trinidad and Tobago*

## Introduction

In order to make scholarly information more accessible and affordable, a number of alternatives to the traditional models, made possible with the technology of the Internet, have been coming to the forefront over the past five years. Some of these strategies fall within the definition of what is called open access (OA). In 2002, the Budapest Open Access Initiative (BOAI) defined OA as the “world-wide electronic distribution of the peer-reviewed journal literature, completely free and unrestricted access to it by all scientists, scholars, teachers, students, and other curious minds.” The intention therefore of the OA movement of that period was to “accelerate progress in the international effort to make research articles in all academic fields freely available on the Internet” (BOAI 2002), while at the same time ensuring that the interests of research, researchers and the institutions to which they belong are well served.

There are two complementary strategies for using OA to provide access to scholarly journal literature – both are endorsed by the BOAI:

- First: The deposit of preprints in an open digital archive hosted by an institution or discipline. This is often referred to as an institutional repository (IR); and
- Second: Publishing in peer-reviewed OA journals.

In some cases there will be overlap between the two in that some self-archived materials will also have been peer-reviewed and accepted for publication. This chapter reports on a survey conducted at Campus Libraries of The University of the West Indies in St. Augustine (UWI STA), in Trinidad and Tobago. The aim of the survey was to gauge the level of awareness of OA journals and publishing among the academic community at this institution. The survey, con-

ducted by librarians at the university, also attempted to ascertain the receptiveness of the faculty and researchers to the development of an IR by the UWI STA, particularly as the libraries were already exploring options for managing, preserving and disseminating their digital assets. The research was therefore seen as pivotal in determining whether or not the concept of the IR should be extended beyond the confines of managing library collections to perhaps revolutionizing scholarly communication and publishing on the entire campus.

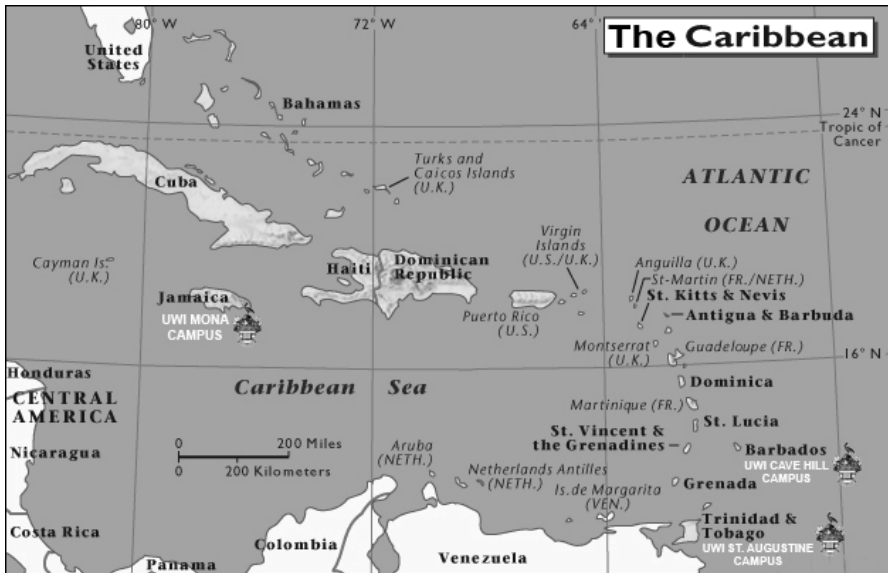


Figure 1: The Caribbean indicating the location of physical campuses of the UWI

## Background: The University of the West Indies, St. Augustine Campus, Trinidad and Tobago

The UWI was established in 1948 at Mona, Jamaica as “a University College with special relationship with the University of London.” Subsequent to this, campuses were established at St. Augustine, Trinidad and Tobago (1960) and Cave Hill, Barbados (1962). Today, the UWI comprises three main campuses at Cave Hill (Barbados), Mona (Jamaica), and St. Augustine (Trinidad and Tobago). In 2008, a fourth campus was added, known as UWI Open Campus; this entity is the distance education arm of the UWI and oversees 42 distance education centers throughout the English-speaking Caribbean. In the six decades since its founding, the UWI has “evolved from a small, mainly residential academy in an elitist higher education setting into a relatively large publicly-

funded institution with three campuses, a combined enrolment of almost 40,000 students and an annual output of some 6,600 graduates who have earned first degrees, higher degrees and advanced diplomas” (UWI 2007). The mission of the UWI is to propel the economic, social, political and cultural development of societies in the English-speaking West Indies through teaching, research, innovation, advisory and community services and intellectual leadership. The UWI STA was formerly the internationally recognized Imperial College of Tropical Agriculture (ICTA). The UWI STA is comprised of five faculties: Engineering; Humanities and Education; Medical Sciences; Science and Agriculture; and Social Sciences. For academic year 2009/2010, enrollment at the UWI STA was 15,462 of which 11,137 were undergraduates and 3,735 were postgraduate students (Student Statistics 2010). There are at present 732 persons on the research and teaching staff on the campus.

The institution-wide strategic plan for the period 2007-2012, highlighted a number of priority areas for the development of the University, among the stated objectives was to enable the University to become internationally recognized as a centre of excellence in research, knowledge creation and innovation on Caribbean matters and on challenges facing small-island developing states.

The libraries at the UWI STA play a key role in supporting the research at the campus and its strategic goals. There is the Main Library, recently renamed The Alma Jordan Library, which serves the needs of the majority of the student and staff population. At the St. Augustine Campus, the Alma Jordan Library is the driving force behind all major ICT projects in the network of Campus Libraries. The Alma Jordan Library has 22 professional librarians and 136 members of support staff. In addition, there are several satellite and specialized libraries which support academic research in Law, International Relations, Medical Sciences, Business, Agriculture and Education.

As far back as 2002, the Systems Unit at The Alma Jordan Library (now called Information Technology Services Unit) began exploring OA as an archiving option which stemmed out of the need to preserve the intellectual output at the UWI STA Campus. After careful evaluation of several open source platforms including E-prints and Greenstone, DSpace was selected as the platform for the Campus Libraries digital archive. Software testing was conducted by the Technical Support Staff in the Systems Unit, guided by the Head of that Department. The testing phase took over a year due to staff shortages and the need to focus on pressing projects such as the upgrade of The Alma Jordan Library’s integrated library system. In the meantime it was decided that a survey would be conducted among academic staff to ascertain their receptiveness to OA and the establishment of an IR.

It is expected that the implementation of a digital archive will result in increased research publications and citations from the UWI STA and it is hoped that more graduate students would be attracted to pursue M.Phil/Ph.D research programs. Additionally, it is anticipated that greater research activity within

the environment will result in innovative outputs on policy, Caribbean economies and society.

Implicit in this strategic aim is the need to upgrade and enhance the current infrastructure for ICT within the Campus Libraries with particular emphasis on the provision of access to information resources and research. Thus improving access to scholarly information is really at the core of any endeavor to develop an IR, which is intrinsically associated with OA publishing.

## Literature Review

The literature abounds with publications on the concept of OA and the development of IRs as a direct consequence of the movement. While quite a number of definitions have been advanced for OA, they are all similar. Suber (2007) for example, posits that OA “literature is digital, online, free of charge, and free of most copyright and licensing restrictions.” He elaborates on the position that OA removes price barriers (subscriptions, licensing fees, pay-per-view fees) and permission barriers (most copyright and licensing restriction).

There are also several definitions outlined in the BOAI, Bethesda Statement on Open Access, and the Berlin Declaration on Open Access to knowledge in the sciences and humanities as well as the Salvador Declaration on OA for developing countries. For the most part, OA exists to enable free online access to scholarly literature, either by publishing in OA journals or through the archiving of material published elsewhere in OA repositories or on the authors’ own websites. The BOAI perhaps says it best, describing the attributes of OA as the

“free availability on the public Internet, permitting any user to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the Internet itself.”

In terms of the intellectual property issue, it goes further to explain that the

“only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited” (BOAI 2002).

The Salvador Declaration on Open Access: the Developing World Perspective (2005), on the other hand, provides a specific developing world perspective, its

main premise being that “OA promotes equity”, and that OA should mean “unrestricted access to and use of scientific information” (Haider 2007).

In developing countries and emerging economies such as those in the Caribbean, the focus of researchers has been the opportunity that OA provides to change the mode of access to scholarly publishing. The position of most scholars is that OA can positively affect both the general public’s access to a wider range of scholarly publications, and the ability of institutions such as libraries and schools to purchase or acquire such materials. Conversely, (Arunachalam 2003; Ramachandran and Scaria 2004) argue that OA also has the potential for extending the audience for scholarly publications coming out of the developing world thereby impacting positively on the reach and visibility of such work. Like many others, Muthayan (2004), indicates that libraries in economically weaker countries have been grappling with the serials crisis (rapidly expanding costs) over the past two decades. Haider rightly concludes that OA is being seen as a most timely alternative to traditional commercial publishers as a means of accessing information.

An earlier study on OA at the UWI revealed that there are indeed obvious and well-documented benefits for researchers from developing countries in the realm of OA. Nevertheless, Papin-Ramcharan and Dawe (2006) are realistic when they point out the disincentives that make it difficult for researchers in developing countries to fully participate in the OA movement. Chief among the factors limiting access and publication in OA journals, are the author-side or “page” charges, the limited number of OA journals in many fields of study and inadequate and unreliable ICT infrastructure and Internet connectivity.

These authors also concluded that much more can be done in developing countries and emerging economies to extend participation in the OA movement including financial assistance and the provision of the technical infrastructure for enhanced online communication and access as well as the preservation of scholarly material. Papin-Ramcharan and Dawe also recommend that institutions become more active in establishing digital repositories designed to give their researchers space to make their material publicly available and the means for longer term preservation of their work. The situation is a little different in a developed country such as the United Kingdom where there is support for authors who wish to publish in an (open access journal) OAJ. According to Pinfield (2010), a number of institutions in the United Kingdom have established funds that provide financial assistance to researchers who wish to pay OA publishing fees.

Additionally, the literature points to “a marked variation among authors in terms of their knowledge of OA and in turn, their judgment of its intrinsic value and therefore, acceptance” (McCulloch 2006). Studies done by Keenan (2005) and Watson (2007) underscore this variation. Like McCulloch, Keenan and Watson found that authors who were familiar with OA were of the opinion that publishing in these journals resulted in widespread access and citation of

their works by peers. These authors also considered OAJ articles to be of a high quality with information that is generally on the cutting edge of their field. On the other hand those who were not very familiar with OA regarded them as having little or no impact and of low prestige. These persons were also of the view that research published in OAJs was not highly rated within academia for assessment purposes. As a result they were not inclined to publish in these publications. Such divergence in views points to the need for effective outreach programs which, according to McCulloch, "... may result in more uniform acceptance of [OA] initiatives".

Clearly, it is crucial that universities bring some pressure to bear on how OA publications are viewed so as to achieve a change in the pattern of academic communication. What has occurred in the past is that institutional subscriptions to scholarly journals have been important sources of income for publishers of paper journals. Paradoxically, it is the staff of universities and other higher institutions of learning and research that provide the intellectual content for these publications. The successful adoption of the OA movement is to a large extent in the hands of educational authorities, researchers, universities, publishers and the managers of research repositories. Their aim should be "to encourage the diffusion of the artistic, bibliographic and documentary heritage of which these institutions are the custodians" (Bravo and Diez 2007). However, the main obstacles to be overcome continue to be related to the quality of research, recognition of authorship and the financing of periodicals with free access.

The creation of an IR has become an integral part of the academic environment, especially in areas like Europe and the United States of America. The benefits of IRs have been discussed at length by Crow (2002); Prossner (2003) and Lynch (2003). Some of the stated benefits include:

1. Wider dissemination of scholarly research;
2. Permanent archiving of an institution's scholarly output; and
3. The promise of a dramatic decrease in cost of scholarly journal subscriptions (Burris 2009).

In 2009, Wani et al. indicated that the OpenDOAR (Directory of Open Access Repositories) website identified 599 OA repositories in Europe and 366 in North America. Since then those numbers have increased. In the Caribbean progress has been slow, so far there are 8 repositories registered with the OpenDOAR. In addition, the 2006 Ithaka study found that approximately 60% of large to very large libraries, 30% medium libraries and 20% of very small libraries have established IRs.

One of the key challenges has been filling repositories with content and encouraging faculty engagement. Foster and Gibbons (2005) and Xu (2008) acknowledge that installing the hardware is merely the first step towards the

establishment of a digital repository. They agree that the hardest part of populating an IR is recruiting content for the repository. Xu (2008) studied 40 DSpace initiatives in the United States listed on the DSpace website in 2006. This research indicated that in 38 cases the average staff participation rate in the IR was about 4.6% per archive with a median of 1.9%. One of the strategies adopted by the Massachusetts Institute of Technology (MIT) to address this issue was to hire someone dedicated to marketing the repository (Foster and Gibbons). Unfortunately, not many universities, especially those in developing countries have the funds to adopt this approach. Some universities have chosen to introduce institutional mandates in order to populate their IRs. In 2008, Harvard University's Faculty of Arts and Sciences unanimously approved a motion that compelled their members to deposit their scholarly articles in an OA IR (Albanese 2008). This was seen as a watershed by OA advocates like Suber who felt that this mandate would encourage other universities to institute a similar practice. According to Burris (2009) some universities, frustrated by the challenges of recruiting faculty content, have given up entirely on filling repositories with peer-review content. Instead they include non peer-reviewed items as well as materials from the library's collection. Xu offers some valuable strategies to encourage faculty engagement which includes recruiting early adopters from areas where there is knowledge about OA and OA publishing such as Physics and using these early adopters to encourage their peers to self-archive in repositories created by their institution.

A number of studies have been undertaken over the last few years which examine the issue of faculty awareness about OA, self archiving in IRs, authors concerns, faculty attitudes and perceptions of IRs. Markey et al., found that user needs assessment was of low significance with respect to decisions made by college and university libraries to initiate IRs (Markey et al., cited in Lercher 2008). In fact, it was discovered that user assessments were done by only 35.4% of those who implemented IRs and that institutional decisions to implement an IR are often motivated by other reasons. Needs assessments were generally done after the implementation of the IR (*ibid*).

A comprehensive study conducted by Swan and Brown (2005) examined two issues:

1. The level of awareness held by author's with respect to the OA concept; and,
2. The features of the traditional journals which were considered important by the respondents.

The study found that peer-review was important to authors and selection of relevant and quality controlled content was rated second. Papin-Ramcharan and Dawe conducted an exploratory survey of lecturers attached to the Faculty of Engineering at the UWI STA campus. This group was selected by the authors



because its members were perceived to be more “tech savvy” than other groups on the campus. Remarkably, they discovered that there was little awareness among Engineering lecturers at UWI STA about OA. Christian (2008) advanced that an additional obstacle to OA in developing countries is a misconception about and a lack of awareness of the existence and benefits of OA publishing. In their discussion, Papin-Ramcharan and Dawe underscored this by giving the example of a lecturer whose article, which had been published in an OAJ, but was refused consideration by the institution’s promotion committee because it was felt that the lecturer paid to get his article published. Furthermore, Ithaka’s 2006 study revealed that about two thirds of the faculty surveyed was not sure that their institution had an IR. Because of this lack of awareness, the researchers concluded that they did not foresee IRs as having a huge impact on the business side of journal publishing.

Watson’s study (2006) examined authors’ responses to QUEPrints, an IR at Cranfield University in the United Kingdom. The study sought to investigate “authors’ publishing behaviours, attitudes, concerns, awareness and use of the institutional repository”. This study reveals that despite having an organized advocacy program at the time of the survey, many authors still had not heard about IRs, nor were they aware of their purpose. Yet, the respondents were able to see “at least one benefit to putting a copy of their work to the QuePrints repository. Of the benefits mentioned, access to a wider audience was mentioned by 67% of the authors and 43% of the authors mentioned higher citations” (Watson 2006). The study also revealed authors’ concern about self-archiving; they felt that it would be added workload for them. Thus, one of the outcomes of the QuePrints survey was the establishment of the Embed project which sought to investigate ways of integrating the authors’ self-archiving to the research process (Watson 2006).

Keenan (2007) also conducted a similar study among academic researchers at a university in Australia. One of the things to note from her study is at the time the study was carried out, 37 universities in Australia had considered implementing or had implemented an IR. Keenan’s study shows that though there were a high number of researchers who had published their work, many had not heard about the concept of OA or about the roles IRs can play in providing greater accessibility to their work. In Keenan’s view much work had to be done within the academic community to make them knowledgeable and change behaviours with regard to OA. It must be noted as well, that in Keenan’s study, authors were of the view that publishing was an “indicator of performance”, and that peer-review was valued highly by the respondents and OA was equated by researchers in her study as a lack of peer-review.

Fullard (2007) surveyed heads of research organizations and biomedical researchers in South Africa to determine their views about OA. The study sought to measure their familiarity with the concept, Fullard went one step further than Keenan or Watson, in that she invited the researchers to explain in an

open-ended question what they understood by the term OA. Some of the respondents in this study expressed some concern about whether OA necessarily ensures greater accountability for public-funded research. Also, as the respondents had been schooled into thinking that copyright means ownership by the publishers they were “therefore unable to imagine a different regimen under OA” (Fullard 2007). Concern about copyright is often one of the issues raised when discussing OA. Author’s rights were also aired as another concern. It is interesting to note however that in the Rowlands and Nicholas’ (2005) study, it was determined that authors did not attach much importance on being able to retain their copyright in an article they had written. Similarly, little importance was placed in obtaining permission to place a pre or post print of their article in the web or some kind of repository.”

Abrizah (2009) conducted a study at a research intensive university in Malaysia. This survey received responses from 131 academics from 14 faculties. The study revealed that respondents who were science-based showed strong support for depositing their work in an IR. There also seemed to be positive support for the principle of OA and making their work available in the repository because the authors saw it as a way to gain increased visibility. Like Fullard’s study, the respondents in Abrizah’s investigation expressed concerns about copyright ownership and plagiarism. This study also showed that “a mandate from an institutional employer or research funder to self-archive would meet with very little resentment and less resistance from respondents.” The authors’ positive response to OA contrasts with the views of authors in earlier studies. This may be due to the fact that more information and studies have been widely circulated about OA, as more universities worldwide have now embraced IRs as an integral part of the academic landscape.

## Methodology

A self-administered questionnaire was selected as the data collection instrument. The questionnaire contained a total of 23 closed and open-ended items. Although, the target population was 732, which excluded part time teaching staff, a convenience sample which represented 48.9% of the population was chosen; therefore the questionnaire was distributed to 358 members of the faculty and researchers of the UWI Campus community. Variables measured included demographics; awareness of OA, attitude and practice with respect to publishing in OA journals as opposed to traditional journals, perceptions of the economic feasibility of publishing in an OA journal versus a traditional journal, and support for the establishment of IRs and self-archiving at UWI.

The survey was conducted over a three month period. A link to the survey was provided in the Campus E-newsletter to facilitate the receipt and return of questionnaires. A maximum of two reminders were sent in an effort to mini-

<b>Variable</b>	<b>N</b>	<b>%</b>
Age group:		
21-24	19	16.7
25-35	34	29.8
36-45	58	50.9
46-65	3	2.6
Faculty:		
Engineering	12	10.5
Humanities & Education	20	17.5
Medical Sciences	20	17.5
Science & Agriculture	30	26.3
Social Sciences	24	21.1
Other	8	7.0
Present position		
Professor	8	7.0
Senior Lecturer	30	26.3
Lecturer/Assistant Lecturer	58	50.9
Other (Unspecified)	18	15.8
Broad area of research		
Agriculture & Life Sciences	24	21.1
Engineering	12	10.5
Humanities & Education	22	19.3
Medical Sciences	17	14.9
Social Sciences	19	16.7
Other		17.5
1-5 years	25	21.9
6-10 years	31	27.2
11-20 years	36	31.6
21 & over	21	18.4
No response	1	0.9

Table 1: Demographics – characteristics of respondents

mize the number of non-respondents. SPSS version 12 for Windows was used for data analysis which consisted of both descriptive and inferential statistics.

## Results

Usable questionnaires were received from 114 of the 358 persons to whom the instrument was sent, resulting in 32.0% response rate. Table 1 gives the demographic characteristics of the respondents. As shown the majority of respondents were between 25 and 45 years of age ( $n = 92$ ; 80.4%); were from the Faculty of Science and Agriculture ( $n = 24$ ; 21.1%); were either Senior Lecturers or Lecturers/Assistant Lecturers ( $n = 88$ ; 77.2%); had been employed at the university for more than 10 years ( $n = 88$ ; 77.2%); and had an active research agenda or were engaged in research at the time of the survey (82.5%). The questionnaire did not ask respondents to state their gender.

### Awareness of OAJs

Seventy-six respondents (66.7%) indicated that they were aware of the concept of an OAJ while one-third was not familiar with it. The majority of respondents ( $n = 83$ ; 81.8%) who stated that they were familiar with the concept had known about it for five years or less.

### Features of Traditional Journals

'*Impact factor*' and '*Quality of the peer-review system*' ranked first jointly among the six factors that influence respondents' choice of a journal publisher irrespective of whether or not the respondent was familiar with OA. '*Reputation of the journal*' ranked sixth. Table 2 gives the factors that influence the respondents' choice of a traditional publisher.

Factors	Aware of OA	Not Aware of OA
Circulation of Publication	86.8	73.7
Impact factor	93.4	73.6
Large readership	84.2	71.0
Quality of peer-review system	90.7	84.2
Readership	85.5	68.3
Reputation	2.6	5.3

Table 2: Factors which influenced choice of traditional publisher: %

Only 21% of the seventy-six respondents (21.0) had submitted article to an OAJ and all respondents who had published in an OAJ prior to the survey indicated that they planned to publish an article within three years after the survey compared to 41.4% of respondents who were not familiar with OAJs

### Reasons for Not Publishing in an OAJ

Table 3 lists the main reasons why respondents chose not to publish in an OAJ. Based on responses among the objections given was the need to pay a publication charge (60%), unfamiliarity with guidelines for publication (56.6%), being unable to identify a suitable OAJ (55%), the low impact of OAJs (51.7%) , and a fear that publishing in an OAJ would jeopardize the chances of their paper being cited by other researchers (51.6%).

A small percentage of respondents also listed the following as their as their main reasons for not publishing in an OAJ:

1. Concern about the absence of copyright;
2. Improper citations;
3. Risk of their work disappearing if the journal folds; and
4. A lack of international readership.

Reason	(n)	%
Not familiar enough with OA	34	56.6
Always publish my work in the same journals	21	34.6
Unable to identify any OAJ to publish	33	55
Perceived the readership of OAJ to be smaller	27	45
Perceived the OAJ in my field to have low prestige	28	46.7
Perceived OAJs in my field to have low impact	31	51.7
Perceived the OAJ in my field to have poor peer review procedures	20	33.4
Object to paying a publication fee	36	60
Articles published in OAJ may be less frequently cited	31	51.6
Concerned about the archiving of work published in OAJ	23	38.4
I cannot find the funds to pay publication fees for OAJ	33	55.1
I was not attracted by the editorial board	11	18.3
My decision was influenced by my co-publishing colleagues	14	23.3

Table 3: Factors influencing decisions NOT to publish in an OAJ

A small percentage of respondents also provided additional reasons for not publishing in an OAJ. Among these issues were:

1. A concern about the absence of copyright;
2. Improper citations;
3. The risk of their work disappearing if the journal folds; and,
4. The lack of international readership.

### Features of Traditional Journals Important to Researchers

Both groups of respondents were asked to list the features of the traditional journals that they considered to be important. Peer review was seen as being the most important by 94% of both those who said that they were aware of open access and those who were Unaware. In addition over 90% of the respondents from both groups regarded citation checking, content editing and the selection of quality controlled content as being important features of the traditional journal (see Table 4).

<b>Feature</b>	<b>Aware of OA</b>	<b>Unaware of OA</b>
Checking of citations/adding links	90.7 %	94.7%
Content editing and improvement of articles	94.7%	92.1%
Gathering articles together to enable browsing of relevant subject material	81.6%	79.0%
Language and copy editing	79.0%	78.9%
Marketing (maximizing visibility of journal)	75 %	81.6%
Peer review	94.7%	94.8%
Selection of relevant and quality-controlled content	93.4%	89.6%

Table 4: Important features of the traditional journal by awareness

Listed in Table 5 are some of the comments about OA publishing cited by the respondents which highlight the advantage and disadvantages of open access publishing in their view.

### Attitude to Funding

In terms of funding for OA publishing, many of the OA supporters and those who were not aware of the concept agreed that it should not come from personal funds (Table 6). But, 44.7% of OA supporters were of the opinion that

---

**Advantages**

---

Allows easier access to information for the Caribbean researcher

Any opportunity to get information in a database to the public is good

---

**Disadvantages**

---

Storage and retrieval was problematic

The ability to publish may be dictated by publishing fees

Academic community should not bear the cost of publications

Concern about quality of the end product

---

Table 5: Stated advantages and disadvantages of OA publishing identified by the respondents

<b>Funding Body</b>	<b>Published In a OAJ</b>	<b>Aware but never published</b>
Commercial sponsors	18.8%	10.3%
Departmental funds	81.3%	34.5%
Personal funds	6.3%	12.3%
Research grants	50%	59.6%

Table 6: Source of funding for OA publishing

funding should come from departmental funds, while almost the same number of those who were unaware of OA felt the same.

In question 17 respondents were asked if they were required by the terms and the conditions of their research grant to publish their results in an OAJ if they would comply with this requirement. Of the respondents 72.4% of OA supporters agreed that they would willingly comply or accept this stipulation. While 68.4% of those who are unaware of OA, agreed that if the terms and conditions of a research grant required them to publish the results of that research in an OA journal they would do so willingly.

Researchers were a little more conservative in their response when they were asked if they would pay a publisher of a traditional journal an additional fee to make their paper available via OA. A small number of OA supporters, approximately 19.76% agreed that they definitely would and 40.8% said possibly. It is interesting to note that 21.1% of those who were unaware of OA also indicated that they definitely would pay a journal publisher an additional fee to make their paper OA.

Respondents were also asked about the extent to which they agree or disagree with the argument that OA publishing would be a more cost effective

option to academic research in the long run than the current subscription-based model. Approximately 64.5% respondents who were aware of OA agreed that OA is the most cost effective option to academic research in the long run than the current subscription-based model. While 56.6% said of OA supporters said they were not concerned that the move to OA may disrupt the established system of scholarly publishing, 34% of non-OA respondents said they were concerned.

### Attitude to Self-Archiving

The respondents were asked if their publishing agreement of their last article included permission to post their article online as a preprint, final peer-review and edited form, as a PDF supplied by a publisher. Among those who were aware of OA, 63.2 % answered that the last time they published an article they were not required to post it in any of the aforementioned formats. Only 6.6% said they posted their article as a preprint, 9.2% said they were allowed to post their article in the final, peer-reviewed and edited form and 13.2% said as a PDF document supplied by the publisher

Authors and researchers were asked who should assume responsibility for archiving their articles, 17.54% of those who were aware of OA but had never published in an OAJ felt that authors should be responsible for archiving their own work. While 50% of the respondents who had published in an OAJ agreed that self-archiving should be the responsibility of the library consortia, while 46.6% of the respondents who were aware of OAJs but had never published in one agreed that the library consortia should assume responsibility for archiving their articles (Table 7). However, those who were aware of OA felt the responsibility should rest with scholarly institutions and publishers of OAJ. While those who were unaware agreed that the publishers of OAJ should accept responsibility for archiving followed by the library consortia.

<b>Body responsible for archiving</b>	<b>Published in an OAJ</b>	<b>Aware but never published</b>
Authors themselves	6.3%	17.5%
Library consortia	50%	44.6%
Publishers of OAJ journals	43.8%	51.8%
National Gov'ts	0%	10.7%
National Libraries	18.3%	26.3%
Scholarly institutions	56.3%	45.6%
Scholarly societies	25%	21.4%

Table 7: Responsibility for archiving



An overwhelming number of the respondents (94.7%) who were OA supporters agreed that would give their articles to be archived by the UWI's repository; while 100% of those who said that they were not aware of OA concept indicated that they were willing to have their articles archived if a IR was established at UWI STA. The following are some of the reasons cited by the respondents:

1. Accessibility of information to the public, staff and students;
2. Greater exposure;
3. Archive will keep track of papers published;
4. Facilitates dissemination of information;
5. Wider readership;
6. Important that UWI's output be easily accessed;
7. Information would be available for other researchers;
8. Important for University to retain a record of research output; and
9. For preservation purposes

Finally the majority of respondents (86.6%) said that they would comply willingly if the University mandated that copies of published articles must be deposited in the digital repository.

## Findings and Discussions

The main limitation of the findings is clearly the low response rate. As stated previously the final rate remained low in spite of two attempts to retrieve outstanding questionnaires. Possible reasons for non-responses include the busy schedules of faculty and staff and inability to find time to complete the questionnaire in one sitting, attitude of faculty or staff towards responding to email in priority order, late arrivals (questionnaires received after the deadline for submission), and the level of importance attached to the survey among persons to whom it was sent.

It should be noted that past surveys conducted by the University's Marketing and Communication Department had a 33-40 % response rate. This seems indicative of a general apathy towards surveys on the Campus. Despite the fact that the survey's response rate falls within the norm of this Campus a greater effort could have been made to reach out personally to respondents to ensure greater participation. The response rate therefore is an indicator of the work ahead to engender buy-in to any OA initiative on the Campus.

The purpose of the study was largely twofold:

- First: To gauge the UWI St. Augustine's researchers awareness of OA publishing and journals; and

- Second: To ascertain their receptiveness to the development of an IR by the UWI.

The results of the survey were seen as critical in determining whether or not the Campus Libraries' Digital Repository should be expanded to include the scholarly output of the entire campus.

The findings show that 66% of the respondents were aware of the concept of OA however only 21% of that number had used this medium for publishing. On the other hand, 34% of the respondents were unaware or had never heard of the concept and consequently had never published in such a journal. As studies have shown elsewhere, the traditional journal was the preferred medium for scholarly output by all respondents. Despite the lack of publications in an OAJ by researchers, a significant number of the respondents expressed a willingness to participate in any IR initiative developed by the UWI. Such a response augurs well for the expansion of the Libraries' Digital Repository however its' success will be dependent largely on the marketing strategies employed by the Libraries. The discussion which follows expands on these and other issues which were generated by the survey.

#### Awareness of the Concept of OA

While the majority of researchers had heard of the concept of OA, this did not necessarily translate into publishing via this medium. Of the 66% of the respondents who indicated that they were aware, only 21% had submitted an article to an OAJ. The fact that 79% had not done so shows a general reluctance by the UWI researchers to utilize this form of publishing. As studies elsewhere have shown, publishing in an OAJ is not the preferred choice of researchers. This is no different at the UWI STA where researchers operate in 'publish or perish' environment. Publishing in peer-reviewed journals is considered a basic requirement for promotion and tenure at the University. Consequently, when asked to rank the factors which would influence choice of traditional journal publisher, researchers ranked factors such as reputation, quality of peer-review, and impact factor as being extremely important when choosing where to publish their articles. They also identified the level of readership and circulation to be important in choosing where to publish their articles.

#### Decision to Not Publish in an OAJ

Researchers who had not published in an OAJ identified several issues which influenced this decision. In the main, 33% of the respondents could not identify a suitable OA journal in their field. However, 57% were of the opinion that they were not familiar enough with the concept to give due consideration to OA as a viable form of publication.

More than 50% of respondents considered OAJs to be of low impact and that if they were to publish in them their work would not be widely cited. However, this perception goes contrary to recent studies conducted on the citation impact of OAJs. In fact Brody (2006), in a recent study, measuring the impact of articles published in an OA organ concluded that OA authors received between 50%-250% more citations than those publishing in traditional journals. Additionally, when researchers were asked in an open-ended question to give additional comments on their publishing decisions, more than 50% of the respondents raised issues regarding the copyright of their work and the low quality of OAJs. These concerns are not unique to the UWI or the region. In fact they are issues which have plagued the OA movement worldwide from its inception.

A significant number of respondents, 60%, objected to paying the publication fees associated with this concept of publishing. OAJs, which by their very nature are supposed to be free, still incur publication costs. While these costs may be offset by institutional funding or through corporate sponsorship in some instances costs are passed on to the author as "page charges". It is these charges to which many authors object particularly when subscription fees pay for the publication of their articles in the traditional journals. Papin-Ramcharan and Dawe (2006) saw this as one of the disincentives to authors' participation in the OA movement particularly in the less developed countries. Thus, when asked who should fund the costs associated with OAJs, there was some difference of opinion between researchers who had previously published in an OAJ and those who, although being aware of the concept, had not published in them.

A significant number, 81% of those who had published in an OAJ were of the opinion that these costs should be covered by departmental funds or the UWIs research grants. This percentage is significantly lower among those who had not published in them. Only 35% of this latter group indicated that they would utilize such funds. Additionally, 25% of the first group considered this a responsibility of the Campus Libraries, compared to 40% of those who had not published in them. It is also significant to note that only 6.3% of those who had published were prepared to use their personal funds for this venture as opposed 12% of those who had not published in them.

Additionally, the researchers cited concerns over quality and the peer-review process of OA publications. These concerns however underscore their unfamiliarity with OA publishing. The literature points to the fact that generally, researchers who were unfamiliar with the concept of OA usually regard them as unsuitable for assessment purposes (Keenan 2005). Of note also is the 23% who were influenced by the co-publishing colleagues. As a result the choice of journal will be dependent on the collective rather than individual preferences. Peer pressure therefore might serve to mute the enthusiasm of those who would want to consider OA publishing.

## Benefits of OA Publishing

Despite the concerns expressed about OA publishing, most respondents agreed that for Caribbean researchers there were many advantages to publishing in an OAJ. Not only would it give them easier access to information in their field, it would also provide exposure to those who belong to institutions that could not afford the subscription fees charged by traditional journal publishers. They also noted that as researchers from a developing country they had a collective responsibility to contribute information for the public good.

The study also attempted to gauge researcher's perception of the impact of OA on the traditional subscription model of publishing. Most of the respondents agreed that OA would be a more cost effective method of publishing and were not very concerned about any negative impact OA would have on the traditional form of publishing. A few however were concerned that as a growing trend in publishing, OA could disrupt the traditional form of publishing.

## Receptiveness to UWI Repository

Additionally, the study tried to ascertain faculty's receptiveness to the development of an IR at the UWI STA. More and more universities have been embracing the technology for the development of IR. Young Rieh (2008) noted in a discussion that such IRs would "provide an opportunity to create a central virtual place into which [researchers] can deposit their scholarly and digital content." This digital content, according to Young Rieh, has the potential to become the greatest intellectual capital of the institution. Establishing such repositories is not without its challenges. Institutions, particularly small ones in developing countries, find themselves faced with issues of finding staff with the requisite skills for managing the repository. In many cases this may very well be an additional responsibility to other staff duties.

In addition, if researchers are to participate in an IR they need to be reassured of the quality of the IR's content. Such content must be able to stand the full scrutiny of the peer-review process which is highly regarded in the academic community. As a result any establishment of an IR must be accompanied by relevant policies to guide quality control. Smith (2008) argues that these policies may very well result in the exclusion of valuable archival material which may not withstand the scrutiny of the peer-review process. He suggests however that this can be resolved by establishing separate collections for various types of material as well as implementing an editorial process which would vet material for each.

In spite of these challenges it is heartening to note that 95% of the respondents were aware of the OA concept and 100% of those who were not, agreed that should the UWI establish an IR and that they would be willing to participate in any OA initiative on the campus. Respondents cited many reasons for

this decision including the fact that there would be greater exposure for their publications, easy public access to the UWI's research output, wider readership and the possibility of archiving to keep track of their published papers. Such a development at the UWI would also resolve the issue of finding funds to pay the associated OA publishing since the initiative would be fully funded by the institution.

Notwithstanding this willingness to participate in a UWI IR, self-archiving was not high on the agenda of the researchers. When asked who should be responsible for archiving their publications, most respondents, over 47%, agreed that it should either be the Library, the University or the OAJ publishers. A few, 8%, even saw a role for the national government. Only 15% considered it their responsibility to self-archive their research. Hanard (2008) states that "most [researchers] will not self archive until or unless their institutions and/or funders mandate that they do so." He also suggests that the success of an institution's IR can be measured by the percentage of scholarly output deposited in the IR by members of the institution's faculty. Hanard cites a study conducted in Australia by Sale (2007) to show that institutions which coupled encouragement and assistance with a mandate to deposit journal articles had a response rate close to 100%. While those institutions which relied on encouragement and the assistance of the Library, were largely unsuccessful in populating their IRs.

Nevertheless more than two thirds of the UWI respondents, 87%, agreed that if required by the University to deposit their articles into an IR they would be willing to so do. The issue however, is who should be at the forefront of this initiative? Ottaviani (2008) argues that since libraries have for years been leading the charge in the area of preservation they should play a leading role in the development of IRs at universities. Such a role however exposes issues related to funding, marketing and promotion, issues which have over the years presented challenges for libraries. Hank (2008) takes cognizance of these issues and suggests that libraries participation should be part of a wider collaborative venture between faculty members, administrators, policy makers, record managers and IT personnel. It is this collaboration which would lead to a more sustainable model of development.

Having ventured into establishing a repository for its digital objects, the St. Augustine Campus Libraries are poised to expand this initiative to include the scholarly communication and publishing output of researchers on its campus into its digital repository. However, there is anecdotal evidence to show that this will neither be an easy transition nor, is the task a simple one. Much work will be required to market the benefits of the repository to the relevant persons on the campus.

## Conclusion

This study undertook to evaluate the readiness of the UWI faculty and researchers to adopt the OA environment for disseminating their research output. It was evident that while many had heard of OA, there were knowledge gaps and misgivings about the concept among the group. For example, it was interesting to note that the UWI authors did not generally consider copyright restrictions in their choice of publishing options, i.e. the traditional journals, but were more concerned about a perceived “loss of copyright” in the OA environment. Also, since a significant number of respondents had not even heard of OA, it was clear that some work had to be done to bring a higher level of understanding of the concept to bear among the campus community.

In spite of the concerns expressed about OA generally, the overwhelming majority of the persons surveyed felt that the University should establish an IR, mainly to highlight the intellectual output emanating not only from researchers of the UWI STA Campus, but also to provide a space for preserving digital copies of published and unpublished works produced by all staff of the UWI. Here again, understandably, the responses did reveal an implicit requirement for mechanisms and policies to be in place to ensure efficient levels of control and quality in the process and the final products.

Concerns about the maintenance of peer-review, copyright and the quality of the items submitted to the archive were expressed, highlighting the need for an OA IR user education strategy/advocacy program to be deployed on the campus. In this regard, there is perhaps a growing need for the libraries to be more proactive in organizing and promoting the capture and organization of UWI intellectual property. Further, it is important that stakeholders on the campus become educated about OA through events such as workshops, consultations on copyright and fair use, as well as other issues to do with scholarly communication topics. Beyond the sphere of scholarly communication the libraries at the UWI STA could also market another value of IRs in that they can be used by faculty for storing learning objects, presentations, archiving lecture notes, etc. It would appear that perhaps more efforts need to be directed in this direction in order to raise awareness of this option which IRs facilitate since most of the respondents may feel that the value of an IR is limited to article publication.

The library would also need to develop clear strategies to further encourage buy-in by the researchers on the campus. A number of approaches can be used, including lobbying for an institutional policy that encourages self-archiving in the repository. By becoming an early adopter of the repository, the library could also effectively promote the platform as the preferred option for creating digital libraries/collections, showcasing the capabilities of the archive to the rest of the campus. In addition to digitizing and storing items from its unique Caribbean resources in the OA repository, the library can use the system to de-

ploy information literacy learning objects in multimedia. Through these approaches, faculty and researchers may be motivated to develop indigenous content for integration in the curriculum, and to see that the repository is really a tool that can be used to manage the intellectual output of the university over the longer term. Another useful by-product of these strategies therefore, might be a raised awareness of the information barriers faced by researchers and authors at less fortunate institutions such as the UWI, and a renewed vigor for attempting to harness and produce more local content.

The unique regional context of the UWI spatially distributed as it is across the Caribbean in the form of three main physical campuses (in Jamaica, Trinidad and Tobago, and Barbados) and a distance arm manifested in the Open Campus instances across the smaller islands, provides a unique challenge for the university in the organization of its research output and digital content. In the long run, it is hoped that the implementation of an IR may be used as a tool to centralize the research output, providing a “one stop shop” that showcases the work that has been collectively produced by the UWI across the Caribbean region. Achieving this goal is no small feat because it involves consensus among all stakeholders, but an IR must be seen as a foil for bridging both technical and procedural disparities among campuses with regard to the management of intellectual content. On the positive side, it should be noted that the technical infrastructure to provide for the storage and dissemination of digital content has been steadily improving on the UWI STA and also the other campuses of the UWI. Enhancements in this regard have been seen in increasing bandwidth, connectivity to the Internet 2, federated search mechanisms, and the integration of Web 2.0 technologies across campus web sites and portals.

In the final analysis the survey presented the library with a clearer of picture of the issues that must be addressed as the IR is implemented. Though it was encouraging that most of the respondents agreed to support the IR in principle, the concerns that they highlighted cannot go unaddressed. Therefore in proceeding with the implementation of the IR, user education and advocacy must be high on the UWI STA libraries’ agenda. The UWI STA libraries have their work cut out but success in transforming the academic landscape will not be realized without the collaboration and support of the researchers on the campus.

## Credits

Figure 1 sourced from: [http://go.hrw.com/atlas/norm\\_htm/caribbean.htm](http://go.hrw.com/atlas/norm_htm/caribbean.htm)  
copyright© 2006 Mapquest

adapted by Paul S. Gibbs, Educational Media Services, UWI, Cave Hill

## Acknowledgements

The authors would like to thank Dr. George Legall, Frank Soodeen and Ruilannii Mahon for their invaluable assistance with this chapter.

## References

- Abrizah, A. "The cautious faculty: their awareness and attitudes towards institutional repositories." *Malaysian Journal of Library and Information Science*, 14.2 (2009):17-37.
- Albanese, A. "Harvard mandates OA." *Library Journal*, March (2008): 16.
- Arunachalam, S. "Information for Research in Developing Countries – Information Technology, a Friend or Foe?" *The International Information and Library Review*, 35.20-4 (2003): 133-147.
- Bravo, B. R. and Diez, L. A. "E-science and OA repositories in Spain." *OCLC Systems and Services: International Digital Library Perspectives*, 23.44 (2007): 343-371.
- Brody, T. "Evaluating research impact through OA to scholarly communication." Southampton: University of Southampton. 2006. <http://eprints.ecs.soton.ac.uk/13313/> [Mar. 2011].
- Burris, B. "Institutional repositories and faculty participation: encouraging deposits by advancing personal goals." *Public Services Quarterly*, 5 (2009): 69-79.
- Chan, Leslie and Costa, S. "Participation in the global knowledge commons: challenges and opportunities for research dissemination in developing countries." *New Library World*, 106.1210/1211 (2005): 141-163.
- Christian, G. E. "OA initiative and the developing world." *African Journal of Library and Information Science*, 18.1 (2008): 1-11.
- Crow, R. "The case for institutional repositories: A SPARC position paper." 2002. [http://works.bepress.com/ir\\_research/7](http://works.bepress.com/ir_research/7) [Mar. 2011].
- Dazey, M. "Thoughts on OA: an interview with Diane Graves." *Serials Review*, 36.2 (2010): 112-115.
- Foster, N. F. and Gibbons, S. "Understanding faculty to improve content recruitment for institutional repositories." *D-Lib*, 11.1 (2005). <http://www.dlib.org/dlib/january05/foster/01foster.html> [Mar. 2011].
- Fullard, A. "South African responses to OA publishing: a survey of the research community." *South African Journal of Library and Information Science*, 73.1 (2007): 40-50.
- Haider, J. "Of the rich and the poor and other curious minds: on OA and development." *Aslib Proceedings*, 59.4/5 (2007): 449-461.
- Hanard, S. "Topic 4: Institutional repository success is dependent upon debates: affirmative argument." Tibbo, H. R., et al., eds. "Institutional repositories: the great debate." *Bulletin of the American Society for Information Science and Technology*, 35.4 (2008): 11-3.
- Hank, C. "Topic 2: Libraries should lead the institutional repository initiative and development at their institutions: negative argument." Tibbo, H. R., et al., eds. "Institutional repositories: the great debate." *Bulletin of the American Society for Information Science and Technology*, 35.4 (2008): 11-3.



- Housewright, R. and Schonfeld, R. *Ithaka's 2006 Studies of Key Stakeholders in the Digital Transformation in Higher Education*. 2008.  
[www.ithaka.org/ithaka-s-r/research/ithakas%202006%20Studies%20of%20Key%20Stakeholders%20in%20the%20Digital%20Transformation%20in%20Higher%20Education.pdf](http://www.ithaka.org/ithaka-s-r/research/ithakas%202006%20Studies%20of%20Key%20Stakeholders%20in%20the%20Digital%20Transformation%20in%20Higher%20Education.pdf) [Mar. 2011].
- Keenan, M. "Academic authors, scholarly publishing, and OA in Australia." *Learned Publishing*, 20.2 (2007): 138-146.
- Lercher, A. "A survey of attitudes about digital repositories among faculty at Louisiana State University Baton Rouge." *Journal of Academic Librarianship*, 34.5 (2008): 48-415.
- Lynch, C. A. "Institutional repositories: essential infrastructure for scholarship in the Digital Age." *ARL Bimonthly Report*, 226 (2003): 1-7.
- McCulloch, E. "Taking stock of OA." *Library Review*, 55 (2006): 337-343.
- Morris, S. "Will the parasite kill the host? Are institutional repositories a fact of life – and does it matter?" *Serials*, 20.3 (2007): 70-79.
- Muswelanto, S., Van der Merwe, A. and Van Deventer, M. "Juggling copyright and OA in the 21st century: South African case study." *Agricultural Information Worldwide*, 2.3 (2009): 137-144.
- Muthayan, S. "Open-access research and the public domain in South African universities: the public knowledge project's open journal system." Esanu, J.M. and Uhlir, P.F., eds. *OA and the Public Domain in Digital Data and Information Science: Proceedings of an International Symposium*. U.S. National Committee for CODATA. Board on International Scientific Organizations, Policy and Global Affairs Division. Washington, DC: National Academies Press, 2004.
- McGovern, N. "Topic 4: Institutional repository success is dependent upon mandates." Tibbo, H. R., et al., eds. "Institutional repositories: the great debate." *Bulletin of the American Society for Information Science and Technology*, 35.4 (2008): 11-3.
- Nicholas, I. and Rowlands, D. "Scholarly communication in the digital environment: The 2005 survey of journal author behaviour and attitudes." *Aslib Proceedings*, 57.6 (2005): 481-496.
- Ottaviani, J. "Libraries should lead their institutional repository initiative and development at their institutions: affirmative argument." Tibbo, H. R. et al., eds. "Institutional repositories: the great debate." *Bulletin of the American Society for Information Science and Technology*, 35.4 (2008): 11-3.
- Papin-Ramcharan, J. and Dawe, R. "The other side of the coin for OA publishing-a developing country view." *Libri*, 56 (2006):16-27.
- Pelizzari, E. "Academic authors and open archives: a survey in the social science field." *Libri*, 43 (2004):113-122.
- Prossner, D. "Institutional repositories and OA: the future of scholarly communication." *Information Services and Use*, 23.2/3 (2003): 167-170.
- Ramachandran, P. V. and Scaria, V. (2004) "OA publishing in the developing world: making a difference." *Journal of Orthopaedics*, 1.1. 2004.  
[www.jortho.org/2004/1/1/e1/index.htm](http://www.jortho.org/2004/1/1/e1/index.htm) [Mar. 2011].
- Suber, P. *OA Overview*. 2007. [www.earlham.edu/~peters/fos/overview.htm](http://www.earlham.edu/~peters/fos/overview.htm) [Mar. 2011].
- Swan, A. and Brown, S. *OA Self-Archiving: An Author Study*. 2005. [Mar. 2011].
- The University of the West Indies. Strategic Transformation for Relevance, Impact, Distinctiveness and Excellence (STRIDE): Strategic Plan [2007-2010]. St. Augustine, Trinidad: UWI, 2009.

- Salvador Declaration. *Salvador Declaration on OA: the Developing World Perspective*. 2005.  
[www.icml9.org/channel.php?lang=en&channel=91&content=438](http://www.icml9.org/channel.php?lang=en&channel=91&content=438) [Mar. 2011].
- Wani, Z., Gul, S. and Rah, J. "OA repositories: a global perspective with an emphasis on Asia." *Chinese Librarianship*, 27. 2009.  
[www.white-clouds.com/iclc/cliej/cl27WGR.htm](http://www.white-clouds.com/iclc/cliej/cl27WGR.htm) [Mar. 2011].
- Wang, X. and Su, C. "OA—Philosophy, Policy and Practice: a comparative study." Proceedings of the World Library and Information Congress: 72<sup>nd</sup> IFLA General Conference and Council, Seoul Korea, August 20-24, 2006. 2006.  
[http://archive.ifla.org/IV/ifla72/papers/157-Wang\\_Su-en.pdf](http://archive.ifla.org/IV/ifla72/papers/157-Wang_Su-en.pdf) [Mar. 2011].
- Watson, S. "Authors' attitudes to, and awareness and use of, institutional repositories." *Serials*, 20.3 (2007): 225-230.
- Xia, J. "Assessment of self-archiving in institutional repositories: across disciplines." *Journal of Academic Librarianship*, 33.6: (2007) 647-654.
- Xu, H. (2008) "The theory analysis of faculty participation in institutional repositories." *CALA Occasional Paper Series*. No.1 (2008): 2-15.  
[www.cala-web.org/files/ops/OPSMarch08.pdf](http://www.cala-web.org/files/ops/OPSMarch08.pdf) [Mar. 2011].



## Part Two – Libraries and Lifelong Learning



# Native Language University Digital Textbook Collection

Martin Hallik

*Tartu University Library, Tartu, Estonia*

and

Liisi Lembinen

*Tartu University Library, Tartu, Estonia*

## Introduction

For years, professors and students in Estonian universities have been using foreign language textbooks to teach and learn at universities. These textbooks, written by foreigners, do not take into consideration the uniqueness of specific countries and/or nationalities. Professors who decide to write and publish Estonian textbooks encounter a number of problems, such as:

- Funding for publishing (usually, only one edition of a textbook is released which quickly goes out of print; and, a second edition does not appear until years later, if ever);
- The low-rank accorded to textbooks on an official academic resume which is used to determine the advancement of academic careers – this is different from institutions in many large countries where the publication of textbooks is given considerable weight to determine academic advancement; and
- The uncertainty and small size of the Estonian textbook market.

These factors do not motivate Estonian professors to spend a lot of time writing Estonian textbooks in addition to their daily academic and research work. In the Estonian textbook market, a print run usually varies between 500 and 1,500 copies; if these are sold out, it will take years, if ever, for a new edition to be printed. Less than 1.1 million people in the world speak the Estonian language, and university students in Estonia make up a very small percentage of this number. As a result, the cost of textbook prices can be quite high for the average university student and the number of titles that are published will cover only part of the actual need of registered university students. Textbook turnover in the second-hand market is very modest. It is nearly impossible to get a used textbook from a bookshop because university bookstores do not have a policy to buy back used textbooks. Once the first edition is sold out,

second-hand books from antique bookstores, libraries and copying are the main sources that students depend on to access text book material. It can be argued, that the small size of the Estonian textbook market is itself the main cause of the illegal copying issue. Students tend to borrow a book from a library and photocopy the entire book. University libraries are therefore the main and the first source of students when they need textbooks in Estonian.

Even though, students depend heavily on library acquisitions to support their program of study, as a rule, the University of Tartu Library<sup>1</sup> can only cover about 20% of the book requirements for any course at the University. For example, based on the annual report for 2007, Tartu bought Estonian textbooks for students at a ratio of one book per five students (2008). This means that about 80% of the students had considerable difficulty in accessing text books in Estonian. Taking into account market realities, finances and fulfilling the students' need for textbooks an innovative Estonian language textbook project was explored. The Library decided to investigate a digital solution to this growing problem.

Before starting the project, various options were researched in order to find the most suitable digital platform for the collection. In addition, specific standards were created to determine which textbooks would be chosen for digitization. A submission process was created for titles to be digitized and during the first year of the project a compensation system for authors was established. Pre-project research methodology and stages of the project are indicated in Table 1 which shows the research prior the project and steps taken to implement the project.

The purpose of this chapter is to show how a small language e-textbook collection can be successful and significantly influence a society, even if the project is limited to one university. Despite the difficulties in accessing information in native languages, especially in small countries, it is hoped that Tartu's experience can serve as a model for other Estonian institutions to introduce an e-textbook scheme and also encourage other small nations to start e-textbook collections in their mother tongue/language. After operating for a year and half, Tartu considers the project a success, even though further research needs to be done.

## Research before Starting the Project and Choosing the Platform

Digital textbooks enable users to visualize 3D models and very complicated graphs and pursue direct links to other materials. The ideal digital textbook is a much more sophisticated than a paper publication. While currently many

---

1 In this chapter the words "Tartu" and "Library" are also used to designate the Library at the University of Tartu.

E-textbooks are merely digitized versions of paperbacks it is likely that in the future digital versions will appear before paper editions with only a reduced version of a digital textbook printed on demand. Some profound changes are needed before this vision can be realized. The digital textbook described above is much more complicated to create than a traditional paper publication. The additional effort has to be valued by universities and publishers and a new business model has to be developed to replace the existing model.

Open access textbooks have a number of benefits:

“These include keeping content current, timely, and fresh; personalizing content for a course; marrying the content with pedagogy and curriculum for a richer experience; breaking the textbook into granular pieces for instructors to personalize and adapt; making the content portable and adaptable; and offering students (and school systems) free and lower-cost alternatives to print books” (Polanka 2010).

It is expected that new software will shortly become available which enables the publication of a multimedia (text)book for an iPhone, iPad and other Apple products. Publishing will cost approximately \$100 (Kruise 2010).

Until now textbook writing and publishing have been based mainly on contracts between academicians and publishers. Many specialists claim this to be a market that publishers protect strongly. In the case of Estonia, the Estonian Ministry of Education and Science as well as the University of Tartu, have funded textbook publishing without any conditions on price or distribution. This means that the Government and University contribute financially to the production of the same textbook three times:

- First: The authors are usually faculty members whose salary comes from a university budget – all major universities in Estonia are directly or indirectly funded mainly by the Government;
- Second: A university or the government financially supports textbook publishing by paying entirely or partially for the printing, editing, authors’ fees etc.; and
- Third: A university library will buy the textbooks.

Despite the large amount of money spent on textbooks, Estonian authors are not motivated to write textbooks because the profit goes to the publishers and the lack of academic recognition given to authoring textbooks vis-à-vis publishing an article in well-known journal. A university’s ability to influence faculty members publishing behavior is evident when one considers what happened at the Massachusetts Institute of Technology (MIT) when, in March 2009, MIT introduced a policy that requires faculty members to grant MIT non-exclusive permission to include their works on the institution’s Open Ac-



cess (OA) platform provided they are not sold for profit (Massachusetts Institute of Technology 2009). Textbooks might easily be the next step. It would possibly be much easier to implement similar conditions for textbooks in small countries rather than in large ones such as the United States. A very big book market complicates the implementation of an OA policy for textbooks. US Representative Bill Foster submitted a bill to the House entitled: Learning Opportunities with Creation of Open Source Textbooks (LOW COST) Act of 2009 on March 12, 2009 which aims to “develop and implement open source materials that contain educational materials covering topics in college-level physics, chemistry, or math”. As of August 2010 this Bill had not reached the House for voting (US. House of Representatives 1464 2009). This initiative may change the situation in the US textbook market significantly.

Between January 2008 and January 2009, the UK’s Joint Information Systems Committee (JISC) researched the usage of digital textbooks in Britain in a National E-book Observatory Project. The main aim of the project was to research students’ actual usage of the e-textbooks and how that influences publishers and libraries. Thirty six higher education e-books were made available throughout Britain, 127 universities and half a million users participated in this research. The results showed that the majority of students and professors used e-books at some point. The results also showed that students mainly look to the library to provide required e-textbooks. This research should encourage publishers because it demonstrated that e-books are not used to replace printed books – students still borrow and buy printed books (Estelle et al. 2009). There have been various other free e-textbook initiatives; however, they were primarily among students of one university and with the main goal to reduce the cost of textbooks for students.

Cost reduction is one of the key aspects that make e-books more attractive for users; this could help to ease demands on library resources. Based on information from the Estonian Digital Books Center, e-books in Estonian tend to be 30% – 40% cheaper than paperbacks (Aasta lõpuks jõuab turule 1000 Eesti kirjanduse e-raamatut 2010). In Europe, the most significant obstacle obstructing universal use of all e-resources is the higher VAT charged in many European countries for e-resources as compared with paper versions. A very important survey on the impact of VAT on libraries and the scientific publication market was undertaken by the Frankfurt Group (2006). This survey showed that because of the higher VAT charged on e-resources, “it is cheaper for libraries to order printed versions of resources in addition to the electronic version.” It found that in the VAT exempt libraries the growth of switching to only electronic resources was much higher (281%) than in not VAT exempt libraries (121%).

Before establishing the Estonian university textbook collection, Tartu assumed that there was a need for this type of collection; even though no research had been conducted to confirm this assumption. Some professors at the

University were questioned in order to determine their opinion regarding publishing Estonian e-textbooks. Generally the feedback was positive with professors suggesting that they would be interested in this type of publishing opportunity. Based on the feedback received – professors wanted limited access, limited downloading ability, printing and copying – the Library decided to look for options that would accommodate all these requirements. Before choosing the platform for this project, Tartu also considered displaying Estonian e-textbooks in its DSpace digital repository. The use of a third party platform saved money as well as the time required to develop and test domestic software.

A 2008 ebrary survey among students who used electronic sources for studying showed that E-books were the second and e-textbooks the 11<sup>th</sup> most used academic resources (2009). E-books and e-textbooks were in the top ten sources most trusted by students. Compared to the year before, there was an increase of 22% in usage of these resources. In this survey, 51% of the students said they used electronic books “often” or “very often”. A study conducted by the University of Strathclyde showed that the vast majority of students would be interested in using e-books (77% of the respondents) and over half of the respondents (55%) said that they are already reading online (Shirattuddin et al. 2003). On the other hand, a survey done at Oregon State University showed that a clear majority of students (93%, 228 out of 245) preferred print textbooks to electronic versions (Christie, Pollitz and Middleton 2009). This was a little discouraging for the project at Tartu as the results showed that a library still needs to provide students with paperback textbooks. This was also confirmed by statistical analysis done at Tartu. Students in the ebrary survey indicated that when it came to an e-book, it is important that the book is searchable, that it has anytime access, that it can be used off-campus and that many students can use it at the same time. These were some of the criteria that Tartu took into account when deciding how and where to display its Estonian e-textbook collection.

A university library needs to be accessible to university students, even if they do not come physically to the library. A study done by the University of Toronto Library showed that students preferred working remotely rather than in the library (Grey 2008) which is one of the reasons why e-textbooks need to be available via remote access. Gray’s article also provides the various reasons why the University of Toronto chose the MyiLibrary platform (2008). Similar reasoning was behind the Tartu’s choice of ebrary as platform for the Estonian e-textbook collection. Reasons driving Tartu’s choice included:

- The University of Tartu Library had been subscribing to the ebrary database for some time, thus it was already known to the institution. Knowing the wide range of content and having previous experience and knowledge about this database, made ebrary a trustworthy choice for the University. In addition to selling licensing and selling content, ebrary is

one of the few companies that offer libraries the option to upload their own materials in order to distribute these online (McKiel 2008). Ebrary's survey among libraries showed that 42% of libraries (out of which, 77% were academic libraries like Tartu), purchase or subscribe to e-books from ebrary (Mullakey 2008). This confirmed that ebrary would be a great option for displaying Tartu's Estonian e-textbook collection;

- ebrary offered the right cost model for Tartu to display its e-textbook collection. The University considered the possibility of building its own platform, but declined to pursue this option due the time constraints and financial considerations. With ebrary a yearly fixed price is agreed upon with the option to upload a few hundred of books. This meets the University's needs because, at this time and in the foreseeable future, there are not likely to be thousands of Estonian textbooks that could be uploaded;
- Right use model – most of our professors did not want students to be able to download PDF files of a textbook unto their computers. Ebrary offers a page-by-page view option of e-books as well as facilitating printing and copy-paste restrictions which complied with the author's conditions. Ebrary also facilitates any e-textbook user's basic needs: 24/7 availability, search-ability, simultaneous accessibility, and up-datability (ebrary allows changes to, for updating purposes, a fixed number amount of files per year). All of these are functionalities required by the University based on pre-launch feedback received from our professionals;
- ebrary uses known standards – PDF and HTML. Estonian textbooks are sent to ebrary in PDF format, which is the easiest format for our professors to submit their e-textbooks to the Library;
- ebrary is publisher-neutral, meaning that a national, small publishing company can have its books displayed next to those of large publishing houses; and
- ebrary provides a platform which allows access only to persons associated with Tartu.

## Methodology for Choosing E-Textbooks for the Collection and Submission Process

Having decided to use the ebrary platform for Tartu's Estonian e-textbook collection, the second step was to determine which titles that would be placed in the collection. A number of factors were taken into consideration in the selection process:

- The textbook had to be in Estonian – it could be a translation of a foreign language text, but there had to be an Estonian version;
- The main target audience of these textbooks had to be persons in higher education;
- Titles in the collection did not necessarily need to include the words “textbook” or “manual”. Obligatory or highly recommended titles for higher education or those in high use by students were the key factors for inclusion in the collection. This included books that are out-of-print or not available from book vendors, but which are still used in the University on daily basis; and
- The University of Tartu Publishing Council recommended highly that authors who received funding for publishing from the University place an electronic version of their book/s in the University’s Estonian e-textbook collection. The University did not stipulate a deposit date for the electronic version; therefore authors are able to choose when they deposited their books in the electronic collection. As a consequence, the paper edition may appear before the electronic version is made available for use within the University.

When the project started in 2008, the following were used to determine the first selection of titles to be placed in the collection:

- Library lending statistics for Estonian language books from the previous year – these were then divided into academic and non-academic titles;
- Publishers of academic books, beginning with those with imprints from the University of Tartu Press, helped the Library to narrow the list of books to be included based on their sales figures. At first, books that were still on sale were eliminated from the list. The total number of potential books used in academic work was eventually narrowed down to slightly over a hundred books; then
- Negotiations were conducted with the authors of the titles chosen for inclusion in the Estonian e-collection.

The negotiation and submission processes at Tartu are as follows: professors of the university are offered an opportunity to submit their published and unpublished textbooks to the ebrary platform. Those submitting a published work complete a questionnaire, which requests general information about the work e.g. printing and copy-paste restrictions and other comments. The digital textbook coordinator provides the metadata and submits that information and the textbook to ebrary for publishing. The students of Tartu can access submitted textbooks through the University’s network or outside of the network by using their university username and password. Currently, there are 49 Estonian e-text-

books in the collection representing a range of subject areas. Copy-paste limitations, different for each book, are based on author stipulations.

## Findings and Problems Encountered

After a year and half operation, various findings and issues were noted. One of the major issues that had to be constantly dealt with was copyright. When the project begun, library staff were not aware of the range of potential questions and problems associated with copyright laws. Similarly, authors were also not aware of their rights with respect to their intellectual property. In many ways, publishing companies are still dictating the entire process. Authors, though rightful owners of their textbooks, do not want to confront or have problems with publishing companies. As a consequence, many of them would rather not submit their books to the collection. Other universities have faced similar issues while trying to digitize textbooks; as a result when it arose the issue did not come as a surprise. Publishers are often not willing to make their titles available for electronic publishing because they are afraid of losing potential revenue from sales. On this issue Ball, Beard and Newland argue that “Publishers must realize that, if their content is not available electronically, it will not be used, much less bought, by students; if it is not used by students, it will not be bought by libraries either” (2008).

Interestingly, the Library has also had some problems with receiving positive replies from publishers even with respect to books that have already been sold out. Some publishing companies have refused to allow the Library to place books that are no longer available for sale in the e-collection by claiming that they are expecting the author to submit a second edition for printing in the future. Publishers further assert that including a title in the e-collection could demotivate an author from releasing a second edition.

The biggest challenge has been receiving book files from publishers. Even if the publisher has no limitations on publishing the book in the collection, several of them have either withheld the files or sought to charge a fee for giving the electronic files to the Library. Considering that Tartu is paying authors a book license, the Library cannot afford to pay the publishers as well, and, certainly not the prices that are being quoted. At the same time, a number of publishing companies have been very agreeable and responded quickly on hearing about the University’s e-textbook collection.

Unexpectedly, the time required to hold discussions with publishers, negotiate with authors, gather the questionnaires and collect the PDF files of books, replies and contracts from authors was extremely time-consuming. Even though, prior to the project, the Library received positive feedback from authors on the creation of the e-collection. The process began with the Library sending out mass emails to faculties. Little feedback was received. Even if some mem-

bers of the faculty were interested, they all wanted it be personally contacted by the Library before submitting the necessary paperwork and files. In some cases, the entire process from sending out initial email until the book ended up in the system, took over half a year. As a result, one conclusion that could be drawn is that while professors are very interested in submitting their textbooks to the project; each of them seems to want a personal approach.

Based on feedback and communication with authors, it is clear that it is important to establish a compensation system from the start. One of the main questions asked by authors was: would they get paid; and, how much? Initially, authors were asked how much compensation they would require for having their textbooks placed in the collection. Only a very few offered a figure. After offering what was considered to be a reasonable amount, many of them found that the offer was too low and gave the book for free. At some point, authors started to ask what was used to arrive at the basis for compensation. It became necessary to establish a system that could be applied to all books. Since most of the textbooks have been bought by the Library, a compensation system, based on the price of three paperbacks of a given title to be included in the e-collection, was developed. So far, it seems that the compensation system has been accepted by the authors, with few complaints being received.

## Comparison with Paper Textbooks

At the beginning of 2010, lending and usage statistics between paper and e-versions textbooks were analyzed – in total 34 titles were analyzed. Statistics for the first full year of e-textbook usage showed that certain popular paper books are also at the top of the statistics for digital usage. Books in Economics and Psychology were the most popular e.g. *Introduction to Economics* – 337 loans; *Microeconomics* – 192 loans; and, *Handbook of Pedagogical Psychology* – 172 loans. Digital usage for the same titles was: 421, 269 and 392 respectively. The average class size for these courses per semester tends to be around 200 students. In terms of the number of pages viewed for the same e-textbooks those figures are as follows: 10,529, 4,821 and 3,820. Since most authors have forbidden printing and copying these activities are limited. These statistics suggest that less than 100 pages each are accessed for most books.

Out of the 32 digital and printed books which were compared, 12 of the digital versions were viewed more times than the paper version was borrowed (37.5% of the total). It is important to note that only two books were available only in digital format. In addition, only a few of the borrowed printed books with digital versions did not have hits on the digital copy. For example, *Molecular Cell Biology* was borrowed 62 times and only once digitally. (A possible reason for this was that the digital version was only added to the collection in November 2009, while the paper version had been borrowed all year. Hope-

fully next year, the statistics for this title will be totally different.) Similarly, the paper version of *Introduction to Econometrics* was borrowed 101 times, but viewed digitally only 7 times.

Based on these statistics, it can be said that the most popular paperback textbooks are also the most popular e-textbooks. This suggests that the 20% service delivery that the Library has with respect to paper textbooks is not enough to meet the needs of users, and that the digital textbook collection is helping to close the gap that exists with respect to students accessing textbooks. These findings show that beside e-textbooks there will be continuous need for paper textbooks. This, to some extent, concurs with Oregon State University's finding on this issue. E-textbooks without any printed version in the Library's course reserve might be problematic for students because of different attitudes to reading text for a long time on a screen. Research has shown that screen reading is 10% – 20% slower than reading from paper. It was never intended that the digital e-textbook collection would be a 100% substitute for paper textbooks, the main goal of the collection was to provide a satisfactory alternative for textbooks.

## Research Feedback

During this project, the Library has constantly been looking for ways to improve its collection – by adding more textbooks, making negotiations easier, and, mainly to make the collection more visible to all students and faculty. It is important that new services offered by the Library are promoted. At the University of Nevada at Las Vegas it was found that marketing e-books is extremely important if a library wishes its digital book collection to be successful (Sinha and Tucker 2009). Posters were displayed inside the Library at the University of Tartu and a website banner was added to the Library's homepage to promote the collection. But, after a year of operation it appears that these are not sufficient promotional activities. In order to find out how to better promote our collection, it became necessary to find out what people thought of the collection. So, in addition to collecting statistics, it was decided that authors would be consulted on their views about the collection after it had been in use for over a year. Even though students were also given an opportunity to send written feedback about the collection, no comments were received from them.

In the summer of 2010, a questionnaire was sent to authors whose textbooks are in the collection. Unfortunately, the number of responses received was quite small. There is the possibility that timing was one of the causes of the low response rate – the examination period and summer vacation. About 15% of authors replied to our survey.

The questionnaire consisted of thirteen questions (Appendix II). Authors were asked about their usage of the ebrary database in general plus various

questions directly connected to the Estonian e-textbook collection. Based on these replies, a little over half of the respondents are not using the e-library database. 71% of the authors were happy with the way the e-books are displayed in the database. Of those who were not satisfied some said that the help area of the webpage took up too much space compared to the actual book. Further, some were not happy with the content and search options. The same number of authors said that they are recommending e-textbooks to their students, but only 14% have received any feedback about the collection or e-textbooks. 71% of authors also said that getting feedback would help them to prepare the next version of their textbook.

When asked about usage statistics, 57% of the respondents said that they would be interested in receiving some kind of statistics. Authors would be particularly interested in receiving statistics regarding the number of users and pages viewed. In addition, 71% of the respondents would also be interested in receiving comparison statistics about paper and e-versions.

With respect to how authors electronically locate e-textbooks – all three options (search engine, Library website, and electronic catalog ESTER) were used to about the same degree. A search engine was used a little more than other two options. 71% of respondents found that the e-textbook collection is easy or fairly easy to find. All of the respondents were either satisfied or fairly satisfied that they had submitted their textbook to the collection. When asked if they were satisfied that only the University of Tartu students and staff could access the collection, 57% of respondents indicated that they were satisfied with access protocols. Many respondents also suggested that there should be more e-textbooks available in the collection and it would be important that at least basic subject textbooks are accessible in a digital format.

The feedback received from the survey also indicated that some improvements need to be made to the Estonian e-textbook collection. One of the main things is to make the collection more visible to students and professors in order to improve usage. Having a stable and easy to find link on the Library website is a major necessity. In addition, in order to reach students, additional research is necessary as well as more effective marketing. At the beginning of the new school year (2010-2011), the Library plans to promote Estonian e-textbooks to a broader student audience and make marketing the e-textbooks collection a priority. It was also discovered that the ways students and professors try to access the collection does not always match how librarians access the collection, so an important goal is to not only make the collection visible, but also more easily accessible.

Information literacy courses are excellent opportunities to promote the availability and possibilities of e-textbooks. Internet-based courses on information literacy have enjoyed great popularity among Tartu's students since 2006. WebCT-based courses enable the Library to give practical exercises to students. Experiences with the e-textbook collection demonstrate that there is a



special need to inform professors about the collection, what it offers and how it can be used. This finding is supported by the University of Worcester's experience with e-books – certain titles are well used, largely due to especially persistent lecturers issuing group work to students on titles they know to be available. The link with lecturers has been the most successful way to promote the e-books (Taylor 2007). The hope is that at Tartu such initiatives will result in an expansion of the collection and lead to an increase in usage statistics. Needless to say, Tartu is taking seriously all suggestions given by authors with regard to electronically providing additional titles and basic textbooks to its students.

Based on research, it has also been found that practically no author has received any feedback from students on how or if they are using the e-textbooks. Ways will need to be found to get students to submit more feedback about the collection or individual textbooks in the e-collection. On this issue Kline and Williams (2008) argue that:

“Casting the user in the role of critical evaluator makes users a part of the solution of bringing forth a product that meets their expectations. One is more likely to be tolerant toward a new product if one is asked to critique the product and provide feedback to the vendor.”

In order to improve the collection, especially when it comes to choosing textbooks that are being added, effective feedback from students and other users is vital for the project.

After a year of operation, it can be said that a proprietary platform would have given more freedom and options (copyright, printing, statistics, etc.) and visibility (all collection would have been automatically shown and promotion would have been more successful) to the Estonian e-textbook collection. The feedback from the survey as well as other types of feedback from students and professors show that the absence of a proprietary platform decreases the success of the collection. A proprietary platform would have enabled the collection to be clearly separate and easily accessible. Further, without a proprietary platform the possibility of linking books to other materials, for example, other textbooks in the same database or the University of Tartu Study Information System where many professors keep their course materials is restricted, although some linking is possible in the ebrary database – for example links to websites mentioned in books.

## Research Limitations

Based on feedback received from authors, it was discovered that the ebrary platform provides only limited statistics. At the present time, statistics are only

provided on the following issues: number of users, number of pages viewed, copied and printed. Some authors and librarians would like to receive more detailed statistics about the usage of e-textbooks. For example, statistics about how long a particular book was accessed by a user; exactly which pages were read; and, where the books were accessed would be useful information. In addition, it would be interesting to know if students take notes while reading or what kind of other study skills and/or learning aids they use (highlighting, etc.). Such statistics could help authors as well as the Library to develop the collection further.

The Library explored the possibility of adding statistical software (for example, Google Analytics) to the collection to acquire data that ebrary does not provide. Unfortunately, ebrary did not allow software from other vendors to be added to their system. Had the Library built a proprietary platform, a range of statistical collection options would have been part of the software's programming.

Due to the lack of user feedback and a low response rate of authors to the feedback survey, the Library was only able to make limited assumptions about the usage of the collection. Had more detailed feedback been received from the students and other users, this information would have been used to improve the collection and make more conscious and reasoned choices in terms of which textbooks were added to the collection. Currently, only lending statistics of printed books are being used to determine which textbooks are digitized. In addition, feedback from students could also help authors to improve new editions of their textbooks; therefore, the Library is planning to conduct some extensive research among its users. This will provide useful data on the usefulness of e-textbooks.

Interestingly, there exists also some evidence that only 20% of high school students believe strongly in the future of e-textbooks while 80% of the students have some dislike of using e-textbooks (Wojcicki 2010). It is hoped that during the proposed research it will be possible to discover the attitude of innovative and technologically advanced Estonian high school and university students towards the use of e-textbooks. These results could be of possible interest to other libraries as well.

## Practical Implications

The Library has been one of the main supporters of Open Access (OA) initiatives in Estonia. When the project began, it was hoped to have an entirely open textbook collection that could, in the long run, evolve into a nationwide OA collection which would receive financial support from the Government. All Government supported publications should be available nationwide and via OA. All University supported publications should also be available through

OA with no limitations for University use. Currently, the Library is working towards the last goal. Hopefully from the fall of 2010, the University of Tartu Publishing Council, will adopt a declaration which states that all authors who wish to receive funding from the University in order to publish Estonian language textbooks must donate an electronic version of their textbook to the collection. At the same time, the Library is going to encourage authors through the University of Tartu Publishing Council to create interactive e-textbooks with videos, 3D pictures, etc. Such options would give e-textbooks additional value compared to paperback releases.

With regard to opening the Estonian language textbooks to nationwide use, Tartu has had some negotiations with the Estonian Ministry of Education and Research (hereafter the Ministry) on this matter. In 2008, the Ministry initiated a nationwide program to finance Estonian language higher education textbooks. The main goal of this national project is to maintain and develop Estonian language in higher education (Estonia. Ministry of Education and Research. 2008). Currently, the Ministry is supporting the publications of paper versions of textbooks, but as a result of our negotiations, e-textbook publishing is being considered.

OA portals for study materials, including e-textbooks, like Merlot <[www.merlot.org](http://www.merlot.org)> and Connexions <<http://cnx.org>> are good examples of how to develop OA collections. Merlot has especially rich and diverse content. Building confidence with users is crucial for a portal to be successful. Merlot has an icon for peer-reviewed materials this builds the confidence of users. In some disciplines only a few materials are reviewed in Merlot, and the majority of content in this OA portal lacks quality assurance certification. Merlot's peer review is done by an editorial board. Connexions has a function called Lens that gives additional information about persons and organizations who trust a particular piece of information in the portal. In the case of small countries like Estonia and languages that are not widely spoken like Estonian, a prominent local editorial board is needed to vet materials that are published in Estonian or other Native languages. This is important in order to build user trust. An OA Estonian e-textbook collection inevitably needs the strong support of the Estonian Government, universities and private donors given the experience of the previously mentioned two portals.

Additionally, if the collection is developed nationwide it would provide a better gauge of real use and success of the collection. Quantitative research about usage and attitudes towards OA should also be conducted across Estonia in order to not only improve the University's Estonian e-textbook collection. This research could also help to introduce OA and e-textbooks nationwide. This quantitative research should involve most Estonian higher education institutions and should cover attitudes towards OA, e-books and e-textbooks. A good example of this type of research is the British National E-book Observatory Project (Estelle et al. 2009). It is believed that research such as this would

benefit universities, libraries, the general public and also the Ministry. In order for this research to have significant impact to all counterparts, the Ministry should be its initiator.

## Social Implications

Even though, more detailed research needs to be done in order to improve the Estonian e-textbook collection at Tartu, the Library feels that it has started a project that potentially has great social impact not only within the University, but also on the general public. Throughout the first year, the Library and university staff have gained much new knowledge about copyright laws. Establishing the collection has given the Library an opportunity to educate all parties involved in the project about copyright. The Library's staff have organized and participated in various events in order to disseminate information about copyright and other issues concerning e-content. It is hoped that these activities will be continued.

In addition, like the rest of the world, Estonia is taking a quantum leap in the field of digital products. E-books, e-textbooks and e-readers are becoming more popular and part of everyday life. Further, new technologies, like e-ink, enable the reading of e-books better than on a regular computer. Negotiations with the Ministry to establish a national e-textbook collection indicate that Tartu's collection has had an impact which extends beyond the closed university network. In addition, this collection has also opened up a wider discussion about OA in higher education in Estonia.

Among the future goals of the project is to continue efforts towards opening the collection to all higher educational institutions in Estonia. Also being considered is the use of technological innovations such as e-book readers in order to promote and ease access to the Estonian e-textbook collection.

## Value of the Collection

When the collection started, because the Library was only interested in Estonian language higher education textbooks there was uncertainty about the impact that it would have. It was known that most university professors who write articles do so in English while those who write textbooks do so in Estonian. Since English articles have a higher impact and influence on an author's academic career it was assumed that it would have been harder to get any materials from authors that were in English due to the possible impact that such a deposit may have had on their academic advancement. Owing to the small size of the Estonian book market, there was some uncertainty as to whether authors would donate their Estonian materials to the Library's database. To the sur-

prise of the Library, stressing the language factor made the project even more successful. Authors seemed to like the idea that the textbooks which would be included in the database would only be titles that were in Estonian. Further, it was evident that authors were more willing to donate their material if they knew which audience it was going use it – limiting the use of the collection to the university community made the target audience very clear to them. In addition, if the Library is going to preserve a digital version of a textbook in the collection for a long period of time it meant that the Library could provide authors with a copy of their work at any point in time. This indicates the importance of digitization and long term preservation, especially as many authors did not have a digital version of books they had written. This way, the Library is preserving a piece of Estonian language and literature. This could also been another factor which influenced authors to give their textbooks to the Library for this project. It is believed that national and perhaps personal pride could have also been factors for authors agreeing to give copies of their textbooks to the collection. Again, further research is needed to confirm our assumptions.

The Library believes that its Estonian e-textbook collection could provide other university libraries with a model to develop a textbook digitalization system. Such a collection would also increase students' access to knowledge for free. Tartu believes that a language-based collection model such as theirs would be more suited to countries whose textbook markets are similar to Estonia's. The Library assumes that for textbooks with large markets (like English) enough of a profit is made, so that a title is reprinted once the first edition is sold out. In addition, textbooks in languages that are widely spoken can also be sold internationally. Again, more research in this area would be necessary to confirm the assumption that a language-based collection model is more suitable for languages that are not widely spoken.

## Conclusion

In 2008, when the project started, the Library made the assumption that a language-based e-textbook collection would be a success. Research and feedback from local authors led to the belief that this type of collection is necessary. Furthermore, the collection was inspired by the need for study materials. Size constraints of the market for titles in Estonian and a lack of reprint options in the Estonian textbook market make it difficult for students to acquire obligatory study materials. As a consequence, students turn to the university Library as the supplier of required materials in Estonian. Unfortunately, it is not possible, due to the financial reasons, to purchase a textbook for each student. This forced the Library to find other solutions to this information need. In this case, the University of Tartu Library decided to make Estonian language and widely used study materials digitally available for internal use.

During the project, Library staff assumed that certain difficulties would be encountered. Additionally, there were also other problems that had not been anticipated. Copyright matters and the lack of a compensation system were two major problems that had to be dealt with from the start on daily basis. At the same time, facing these problems, gave the Library an opportunity to educate not only library staff, but also the general public. The collection has received larger nationwide attention than was expected. It is hoped that the Estonian e-collection at the University of Tartu will encourage other university libraries in the country to develop similar collections and that a nationwide OA Estonian e-textbook collection is a reachable goal and a necessary next step in providing access to Estonian language materials.

While hoping for the development of a nationwide collection, at Tartu the improvement of its e-collection of Estonian material is continuing. After a year and half of operation, a survey was conducted with authors who had textbooks in Tartu's e-collection. The results showed that authors do not receive enough feedback from students and that items in the collection are not always posted in such a way that they are always easily accessible. This has created a need for the Library to develop additional goals in terms of marketing and promoting the collection within the university. It will be necessary also to develop new marketing strategies which primarily targets students who are the main persons for whom the collection was developed.

Further, more detailed statistics would be a beneficial to assist with improving the collection. Unfortunately, these are not available through our current platform provider. As a consequence, the Library is still searching for alternative ways to improve its gathering of statistical data. More research also needs to be done regarding the influence that a single language has on the development of a collection. It is believed that one reason for the success of this collection is that it is focused on the national language of a small country; however, this needs to be proved. If other small countries were to develop collections in their native language such collections would serve as the basis for the collection of statistics that could be used for comparative purposes. Such a comparison would indicate if our assumption that the success of the collection is because it is restricted to a single language is correct and that such an assumption has wide applicability.

In conclusion, it can be said that when the Library started its Estonian e-textbooks collection almost two years ago, it was not sure if the collection would be successful or be of interest to anyone. To the Library's surprise, it has received more positive feedback than it had ever expected. A collection based mainly on the need to provide students in Estonia with necessary study materials has received national and international attention. The Library hopes to continue improving its e-collection of Estonian texts, share its experience and model with other libraries interested in creating a similar collection while digitally preserving Estonian national higher education literature in the process.

## References

- “Aasta lõpuks jõuab turule 1000 Eesti kirjanduse e-raamatut.” *Eesti Ekspress*, 26 Aug. 2010.  
[www.ekspress.ee/news/paevauudised/eestiudised/aasta-lopuku-jouab-turule-1000-eesti-kirjanduse-e-raamatut.d?id=32782097](http://www.ekspress.ee/news/paevauudised/eestiudised/aasta-lopuku-jouab-turule-1000-eesti-kirjanduse-e-raamatut.d?id=32782097) [Mar. 2011].
- Ball, D., Beard, J., and Newland, B. “E-books and Virtual Learning Environments: Responses to a Transformational Technology.” *Acquisitions Librarian*, 19.3 (2008): 165-182.
- Christie, A., Pollitz, J. H., and Middleton, C. “Student Strategies for Coping with Textbook Costs and the Role of Library Course Reserves.” *Portal: Libraries and the Academy*, 9.4 (2009): 491-510.
- Ebrary. *2008 Global Student E-book Survey*. 2009.  
[www.ebrary.com/corp/collateral/en/Survey/ebrary\\_student\\_survey\\_2008.pdf](http://www.ebrary.com/corp/collateral/en/Survey/ebrary_student_survey_2008.pdf)  
 [Mar. 2011].
- Estonia. Ministry of Education and Research. *Eestikeelsete kõrgkooliõpikute koostamine ja väljaandmine (2008-2012)*. 2008. [www.hm.ee/index.php?044798](http://www.hm.ee/index.php?044798) [Mar. 2011].
- Estelle, L., et al. “Understanding How Students and Faculty REALLY Use E-Books.” Electronic Publishing Conference, 2009. Nuova Cultura, Milan, June 2009.  
<http://conferences.aepic.it/index.php/elpub/elpub2009/paper/view/79/36> [Mar. 2011].
- Frankfurt Group. *Survey on the Impact of VAT on Libraries and the Scientific Publication Markets*. 2006.  
[http://frankfurtgroup.d-nb.de/statements\\_press/pdf/statement\\_impact\\_vat.pdf](http://frankfurtgroup.d-nb.de/statements_press/pdf/statement_impact_vat.pdf)  
 [Mar. 2011].
- Gray, J. “From Print to “e”: An Industry Perspective.” *Acquisitions Librarian*, 19.3 (2008): 431-439.
- Kline, E., and Williams, B. (2008) “Managing Users’ Expectations of E-books”. *Acquisitions Librarian*, 19. 3 (2008): 409-415.
- Kruuse, K. “Tartu firma arendab e-raamatu tegemist.” *Tartu Postimees*, 23 Aug. 2010.  
[www.tartupostimees.ee/?id=302989](http://www.tartupostimees.ee/?id=302989) [Mar. 2011].
- Massachusetts Institute of Technology Libraries. MIT Faculty Open-Access Policy: Policy Adopted by Unanimous Vote of the Faculty on 3/18/2009. 2009.
- McKiel, A. “Survey Analysis: ebrary User Survey.” *Acquisitions Librarian*, 19.3 (2008): 231-245.
- Mullarkey, M. “Ebrary and Two International E-book Surveys.” *Acquisitions Librarian*, 19.3 (2008): 213-230.
- Polanka, S. “Exploring Open Access E-textbooks.” *Off the Shelf, Booklist*, 15 Apl. 2010: 69. <http://drcwsu.ohiolink.edu/handle/2374.WSU/3925> [Mar. 2011].
- Shiratudin, N., et al. “E-Book Technology and its Potential Applications in Distance Education.” *Journal of Digital Information*, 3.4 (2003):  
<http://journals.tdl.org/jodi/article/view/90/89> [Mar. 2011].
- Sinha, R. and Tucker, C. “Moving from Book to E-book.” *Acquisitions Librarian*, 19.3 (2008): 353-365.
- Taylor, A. “E-books from MyiLibrary at the University of Worcester: A Case Study.” *Electronic Library and Information Systems*, 41.3 (2007): 217-226.

The University of Tartu Library. *Tartu Ülikooli Raamatukogu tegevusaruanne 2007. aastal*. 2008.

[https://dspace.utlib.ee/dspace/bitstream/10062/15286/1/aastaruanne\\_2007.pdf](https://dspace.utlib.ee/dspace/bitstream/10062/15286/1/aastaruanne_2007.pdf)  
[Mar. 2011].

U.S. House of Representatives “Learning Opportunities with Creation of Open Source Textbooks (LOW COST)”. Act of 2009. H. R. 1464. 2009.

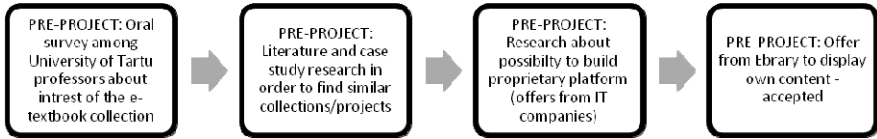
[www.govtrack.us/congress/bill.xpd?bill=h111-1464&tab=summary](http://www.govtrack.us/congress/bill.xpd?bill=h111-1464&tab=summary) [Mar. 2011].

Wojcicki, E. “E-Textbooks to iPads: Do Teenagers Use Them?” *Nieman Reports*, Summer (2010): 31-32. [www.nieman.harvard.edu/reportsitem.aspx?id=102408](http://www.nieman.harvard.edu/reportsitem.aspx?id=102408) [Mar. 2011].

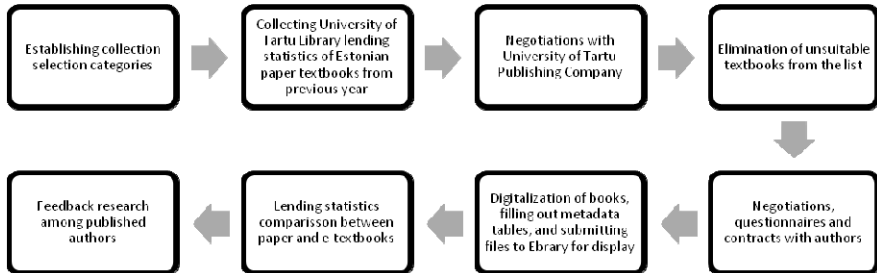


## Appendix I

### Pre-project research



### Stages of the project



## Appendix II

### Survey Questions on “Estonian language e-textbooks collection”

- 1) Are you a user of ebrary database e-books?
  - a. Yes
  - b. Rather yes
  - c. Rather no
  - d. No
- 2) Are you satisfied of the way, e-textbooks are displayed in Ebrary database?
  - a. Yes
  - b. No
- 3) If not, please explain why?
- 4) Do you recommend e-textbooks to your students?
  - a. Yes
  - b. No
- 5) Have you received any feedback from your students about e-textbooks?
  - a. Yes
  - b. No
- 6) Would you be interested in user statistics?
  - a. Yes
  - b. No
- 7) What kind of statistics would you be interested in? (Choose as many as apply)
  - a. Amount of users
  - b. Pages printed
  - c. Pages copied
  - d. Pages viewed
- 8) Would you be interested in receiving paper version and e-version comparison statistics?
  - a. Yes
  - b. No
- 9) Does a feedback help you on your next version of the textbook?
  - a. Yes
  - b. Rather yes
  - c. Rather no
  - d. No
- 10) How do you search for e-textbooks? (Choose as many as apply)
  - a. Library homepage
  - b. Electronic catalogue ESTER
  - c. Search engine (Google etc.)

- 11) Are the e-textbooks of the University of Tartu easily findable?
  - a. Yes
  - b. Rather yes
  - c. Rather no
  - d. No
- 12) Are you satisfied that you gave you book to Estonian e-textbooks collection?
  - a. Yes
  - b. Rather yes
  - c. Rather no
  - d. No
- 13) Are you satisfied that only the University of Tartu students and staff can access these e-textbooks?
  - a. Yes
  - b. No
- 14) Please make recommendations and give an opinion about the Estonian e-textbook collection.

# Balancing Access to Knowledge and Respect for Cultural Knowledge: Librarian Advocacy with Indigenous Peoples' Self-Determination in Access to Knowledge

Loriene Roy

*Professor, School of Information, The University of Texas at Austin  
Austin, Texas USA*

Kristen Hogan

*Project Director, Embrey Women's Human Rights Initiative  
Center for Women's and Gender Studies, The University of Texas at Austin  
Austin, Texas USA*

Spencer Lilley

*Kaihautu Māori / Māori Services Manager  
Massey University Library – Te Putanga ki te Ao Mātauranga  
Palmerston North, North Island, Aotearoa/New Zealand*

## Introduction

On September 13, 2007, the United Nations General Assembly adopted the Declaration on the Rights of Indigenous Peoples (DRIP). The Working Group on Indigenous Populations of the UN Sub-Commission on the Promotion and Protection of Human Rights had been working on this document since 1982. DRIP names indigenous peoples as a plural entity, as a group, rather than a collection of individuals. This significant contribution to documents on human rights requires a shift in information specialists' understanding of intellectual freedom and supports longstanding calls from indigenous peoples to end the colonial appropriation of their cultural materials, narratives and spaces.

The lengthy process of Western endorsement of DRIP indicates the vast differences between Western and indigenous peoples' conceptions of human rights, including cultural rights. The four votes against DRIP included Australia, Canada, New Zealand and the United States, nations with histories of cultural imperialism waged against indigenous peoples. A shift in support has resulted in the endorsement of DRIP by Australia, New Zealand, and Canada, as well as moves to begin the endorsement process by the United States.

In consultation with policy documents created in collaboration with indigenous policymakers and librarians, DRIP calls on all information specialists to revise their advocacy for human rights beyond intellectual freedom and an individualistic, state-based framework. This chapter formulates an invitation to develop access to information policies reflective of indigenous peoples' group rights to the support of indigenous cultural production and to self-determination of access to cultural information.

The chapter draws on indigenous narrative and literature review as methodology in order to create a conversation among indigenous authors here in the text and to emphasize the importance of stories as cultural material in order to protect them from appropriation. The emphasis of this study on stories also identifies Western individualism as one story that perpetuates oppression. Susan Dion explains how a Western worldview practices this violence:

“Canadians ‘refuse to know’ that the racism that fuelled colonization sprang from a system that benefits all non-Aboriginal people, not just the European settlers of long ago. This refusal to know is comforting: it supports an understanding of racism as an act of individuals, not of a system. It creates a barrier allowing Canadians to resist confronting the country’s racist past and the extent to which that past lives inside its present, deep in the national psyche. The need to deny racism in Canada’s past resurfaces again and again in its present” (Dion 2009).

In this chapter information specialists are called upon to cease to refuse to know, to reflect on their participation in systems of oppression, and to commit to partnerships with indigenous communities and librarians in order to develop respectful systems of access to indigenous peoples' knowledges.

## Cultural Knowledge and Cultural Imperialism

Indigenous communities around the world hold their cultural histories in oral form. Linda Tuhiwai Smith describes the function of the story: “The story and the story teller both serve to connect the past with the future, one generation with the other, the land with the people and the people with the story” (Smith 1999). Angela Cavender Wilson spoke of the importance of stories when reflecting on spent with her Dakota grandmother:

“These stories are not told by people who have been “conquered,” but by people who have a great desire to survive as a nation, as Dakota people. Consequently, these are not merely interesting stories or even the simple dissemination of historical facts. They are, more important,

transmissions of culture upon which our survival as a people depends. When our stories die, so will we” (Wilson 1998).

This chapter begins with a story, a true story of something that took place recently in a library in New England in the US. This story has to do with the material culture that remains from a horrific incident in history. On January 1, 1889, a Paiute Indian man named Wovoka had a vision during a solar eclipse. This vision told him to teach other tribal people how to dance a sacred dance, a dance that came to be one aspect of the Ghost Dance Religion. By engaging in this dance, American Indians believed that they could reverse the terrible impact of contact. Their family members who died due to European diseases would come back to life, the buffalo would return, and Indian people would be able to live happily again according to their traditional lifeways. All would take place if they danced this dance. Hungry, desperate, frightened people sought the dance. They dressed in Ghost Dance shirts, shirts of tanned hides that were fringed and painted with spiritual symbols that were said to protect the wearer from the bullets of soldiers. News of the Ghost Dance movement reached the ears of the U. S. military and the military was placed on alert. In the middle of winter, December 29, 1890, a group of Lakota people gathered in South Dakota at a location called Wounded Knee to dance the Ghost Dance. The 7<sup>th</sup> Cavalry of the U. S. Army, still smarting from their loss at the Battle of Little Big Horn where General George Armstrong Custer and his men were killed, attacked the dancers. They killed two hundred men, women, and children. Many men and women were wounded and left to freeze. Each winter, members of Sitting Bull’s descendents gather for a ride, a ride on horses on December 31 to commemorate Wounded Knee (Streissguth 1998). Those deaths are remembered today, the names of those who died are recalled, and the wounds still feel fresh. In addition to these memories, tangible items remain from Wounded Knee. The U. S. Army hired civilians to bury those killed at Wounded Knee and to remove items from their bodies. Chief among these were the Ghost Dance shirts, taken from the bodies of the dead and dispersed. Major Frank Root bought a number of these materials and, in 1893, when he returned to his home in Barre, Massachusetts he turned over the items from the Dakota dead to the local museum.

One Ghost Dance shirt was moved to Scotland where the Scottish government returned it to the Lakota people in 1999 (Kent 2009). And one is located in New England at the Barre Library Association in Massachusetts at the Henry G. Woods Memorial Library and Museum. In addition to the Ghost Dance shirt, the Museum holds the largest number of items from Wounded Knee, including medicine bags, scalps and pipes (Ring 2007).

In New Zealand, early contact between Māori and sealers, whalers and traders led to a strong demand by the latter for mokomōkai (tattooed heads), koiwi (body parts), whakairo (carvings) and weapons with many of these later

becoming part of museum and gallery collections in the Western world. Although in many cases these exchanges took place in a fair and relatively equitable manner, it is also true that at times these cultural artefacts were acquired in dubious circumstances (Walker 2004).

Who owns this cultural material? Where should it reside? How are these decisions made? What will happen next? Should these materials be repatriated to the descendents of those who died at Wounded Knee? What if the communities would plan to bury the returned items? Should someone be allowed to take the clothing that your family member wore when they died, keep it, display it, and prevent you from reclaiming it?

In the United States, federal cultural reparation policy falls short by not addressing private museums or libraries. Museums in the United States that accept federal money must follow legislation called NAGPRA, the Native American Graves and Property Reparations Act. NAGPRA provides a process for the return of sacred and funereal objects to tribal communities. NAGPRA does not apply to the Henry G. Woods Memorial Library and Museum because it is privately owned. There is no equivalent NAGPRA legislation providing guidance for libraries that might also house sacred material in their collections. What should the answer be in this case? The possible outcomes of this story may feel logical: both sides may claim that they own the Ghost Dance shirt, one community by means of original ownership, the other by physical ownership due to some long-past exchange of stolen cultural materials. When money changes hands certainly people feel that ownership also changes hands. In this case, the objects were donated by Major Root but over time they acquired a monetary value of over \$2 million. Scotland did return the Ghost Dance shirts that they cared for to the tribal community of origin.

Repatriation of Māori kōiwi including mokomōkai from foreign museums has been undertaken on a negotiated basis with each collecting institution. As many of the items involved are yet to have their iwi (tribe) of origin identified they have been placed under the care and guardianship of New Zealand's national museum, Te Papa Tongarewa. New Zealand cultural institutions, particularly museums have vast collections of Māori artefacts and in recent years iwi and hapu (sub-tribes) have been developing inventories of their cultural property held by these institutions (Lilley 2008). For these groups, this is the first stage of a process to start the development of their own cultural centers, with the next step being a negotiated repatriation of these items for inclusion in the centre.

The ghost dancer story and the information about the collection of Māori cultural property by national and international museums places our subsequent discussion in the realms of indigenous culture, traumatic history, and the roles of libraries and archives. As such, it illustrates how discussion of access to traditional knowledge expressions exists in contested territories – but territory that is also ripe for understanding, communication and respect.

A corollary act of appropriating cultural materials is appropriating indigenous narratives through the lack of support for indigenous authors and publishers. This lack of infrastructure and librarian advocacy results in limited access to knowledge created by and for indigenous communities. Literary scholar Daniel Heath Justice asserts that both indigenous literature and indigenous literary criticism are vital cultural knowledge:

“If ‘the truth about stories is that’s all we are,’ as Thomas King asserts, then, the work of the literary scholar has profound implications. Our vocation is the telling, preservation, interpretation, and creation of stories. Stories are what we *do*, as much as what we *are*. Stories expand or narrow our imaginative possibilities – physical freedom won’t matter if we can’t *imagine* ourselves free as well” (Justice 2006).

According to the ethics of advocacy mapped out by feminist philosopher Linda Alcoff, this priority of self-determination in narrative is as significant as in governance: “in some instances speaking for others constitutes violence and should be stopped” (Alcoff 1991). In order to create respectful access to cultural information, indigenous communities, then, must have access to their own narratives. Literary critic Jace Weaver outlines his concept of communitism, a combination of community and activism, to describe literature as creating vital space for connection:

“Literature is communitist to the extent that it has a proactive commitment to Native community, including what I term the ‘wider community’ of Creation itself. In communities that have too often been fractured and rendered dysfunctional by the effects of more than 500 years of colonialism, to promote communitist values means to participate in the healing of the grief and sense of exile felt by Native communities and the pained individuals in them” (Weaver 1997).

If literature and stories are central to imagining a cultural future, access to this literature and such stories depends on support for their creation. The current publishing industry is increasingly exclusionary, as Kay Shaffer and Sidonie Smith explain:

“At this historical moment, telling life stories in print or through the media by and large depends upon a Western-based publishing industry, media, and readership. This dependence affects the kinds of stories published and circulated, the forms those stories take, and the appeals they make to audiences” (Shaffer and Smith 2004).



Indigenous literature as cultural knowledge, then, depends on advocacy for publication and collaboration.

In New Zealand, Māori are recognized as one of the most written about indigenous peoples worldwide. The reality of this statement is that most of this literature has been produced by non-Māori authors, particularly eighteenth and nineteenth century explorers, missionaries, settlers and scholars who viewed Māori cultural beliefs and activities through European lens. Their interpretation and in some instances their distortion of the facts has led to the misrepresentation of tikanga Māori (Māori customs), history and beliefs (Smith 1999). For example, this is particularly evident in the monographs written or edited by Stephenson Percy Smith (1910, 1913), where he manipulated genealogical evidence to support his theories relating to the origins of Māori and his informant's belief of a creation sequence involving a supreme being known as Io. Over the last thirty years, there has been a growth in publications on Māori topics written by Māori authors and this has to a degree has progressively led to the cultural reclamation of previously mis-represented knowledge. However the New Zealand publishing industry is conscious of the small market for books on Māori issues and the commercial viability or otherwise is a significant influence on whether Māori knowledge is imparted in this manner. Even more precarious is the demand for items published in te reo Māori (Māori language), which like any indigenous languages contains knowledge within the nuances of dialect that cannot be reproduced in translation.

The lack of support for indigenous authorship partnered with appropriation of stories and other cultural materials results in the practice of cultural imperialism by information specialists. Without collaboration with indigenous communities and indigenous information specialists, non-indigenous information specialists cannot create respectful policy for the sharing or protection of cultural knowledge. Alcoff emphasizes that dialogue must be possible:

“Often the possibility of dialogue is left unexplored or inadequately pursued by more privileged persons. Spaces in which it may seem as if it is impossible to engage in dialogic encounters need to be transformed in order to do so” (Alcoff 1991).

This chapter suggests one pathway towards that transformation.

While librarians and library organizations support the theory of intellectual freedom, they need to take this further to actively support production of literature and to advocate with communities for the recognition of group cultural rights that may include limiting access to cultural knowledge.

To most librarians in the United States and New Zealand, intellectual/cultural property rights is a murky area, somehow akin to patents, copyrights, trademarks and all of those concepts that shout out “lawyer”. The concept of traditional knowledge is even more foreign. Librarians in both countries are

apt to connect the phrase with conflicts between indigenous peoples and pharmaceutical companies and similar battles between large corporations and innocent, naïve peoples who just are not willing to share what they know with people who can make better use of the products of their plants. They, therefore, think that traditional knowledge does not touch them, the collections they acquire and organize, or the patrons they serve. And when access and traditional knowledge or cultural expressions are referenced, it is more likely to be in the form of “access versus traditional cultural expression”.

What do indigenous peoples want protected? Indigenous cultural expressions include dance, song, stories, oral accounts. Extended from these expressions are their records such as recordings of performances and their written description. These are the materials that might be located within institutions that we know as libraries, museums or archives. The provenance or history of how materials found their way into cultural institutions varies; material could have been sold by individuals, donated, or removed from their cultural origins. Regardless, their location can be viewed by indigenous people as a removal and continuation of cultural loss that reflects the nineteenth century doctrine of Manifest Destiny, a view by white colonizers that their righteous role was to exert progress by taking Native held land areas and eradicating indigenous peoples or at least removing them to contained areas where they might learn to follow newer ways of living based on individual ownership.

In the twentieth century, views of the value of indigenous cultural expressions shifted. In his book, *Exhibiting Māori: A History of Colonial Cultures of Display*, Conal McCarthy describes how

“the meaning of Māori things in New Zealand museums has been transformed at different times, shifting from curio, to specimen, to artifact, to various forms of art, to *taonga* [treasure]” (McCarthy 2007).

This shifting of views of indigenous cultural material not only relates to audience perceptions but also to a shifting of opinions of those who house, care for, describe, and provide access to these materials. McCarthy cites Ivan Karp and Steven Levine who believe that “The very nature of exhibiting, then, makes it a contested terrain” (McCarthy 2007).

It is easy to extend this statement to suggest that the very nature of housing cultural materials – whether they are the objects themselves or products of their study – places the objects and the products in contestation.

With awareness of a history of cultural imperialism, information specialists can interrupt this pattern of violence. The shifting of views of the importance or perceived value of indigenous cultural heritage has taken different forms. Genealogists want to trace their family history with some seeking evidence for tribal enrollment. Educators desire access to content to share with their students; sometimes they are required by state law to incorporate the his-

tories and contemporary lives of the state's Native peoples into their curriculum. Individuals – including some scholars, writers, publishers, artists, companies – see personal academic and/or financial gain through contact with indigenous cultural materials. Oppression through ownership is an expression of cultural imperialism – which Laurie Anne Whitt describes as

“a type of cultural acquisition via conceptual assimilation ... that turns vitally on legal and popular views of ownership and property, as formulated within the dominant culture” (Whitt 1999).

She goes on to define such acquisition as a practice of cultural imperialism:

“Cultural imperialism, then, embraces a spectrum of expropriative strategies. At one end of this spectrum we find legal theories of acquisition that facilitate the dominant culture's ownership of indigenous land and of the material remains of indigenous peoples within the land. At the other end, we find theories of acquisition that rely on laws of intellectual property to legitimate the privatization of less tangible indigenous resources” (Whitt 1999).

That is, cultural imperialism supports, in turn, land and governance-based imperialism. Self-determination over cultural knowledge is key to indigenous survival.

Through their participation in ownership of cultural materials, information workers are implicated in cultural imperialism. Information workers sometimes have misguided views of ownership. When misguided, they believe that they own cultural objects located in their collections and they are responsible to no one in providing access – or not providing access – to segments in their collection. They may regard Native peoples as outsiders placing demands on their time to enforce rules on materials that the library/archives/museum owns. The main points of discussion – and possibly, contention – between Native and academic communities are likely to be those that exist between American Indians and archaeologists as they:

“center on various aspects of cultural heritage, that is, who owns the past, who manages the past, and who has the right to tell the stories about the past” (Hunter 204).

While archaeology is often singled out as a traditional offender, people in any discipline, including linguistics and musicology, can both violate or support traditional knowledge customs.

The inability or refusal to permit indigenous peoples to determine access over their cultural materials is a form of oppression. It is demeaning to the ex-

tent that this infers that indigenous peoples are less than human, less intelligent, and incapable to caring for their own materials. This form of cultural imperialism has its roots in the development of the neo-imperial nation-state. Janusz Symonides describes how the exclusion of cultural rights demonstrates their importance. States fear

“that the recognition of the right to different cultural identities, the right of identification with vulnerable groups, in particular minorities and indigenous peoples, may encourage the tendency towards secession and may endanger national unity. For this very reason, the introduction of cultural rights in the Charter of the United Nations was blocked during the San Francisco Conference”

and the cultural rights of minorities excluded from the Universal Declaration of Human Rights (UNHR) (Symonides 1998). This fear of losing the privilege to erase history, however, is not sufficient grounds to sustain oppression.

The connection between self-determination and cultural sovereignty requires the treatment of indigenous cultural knowledge as a collective responsibility rather than as individual property. The Declaration on the Rights of Indigenous Peoples prioritizes cultural rights throughout the document. Article 3 emphasizes the connection between self-determination and control over cultural knowledge:

“Indigenous peoples have the right to self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social, and cultural development” (United Nations. General Assembly. 2007).

Legal scholar Cindy Holder points out that this “connection between cultural integrity and self-determination in documents treating indigenous peoples” emphasizes cultural rights as group rights (Holder 2008). Understanding cultural rights as a community process, in turn, requires recognition that the community must control their own cultural knowledge.

The development of new technologies, particularly digitization techniques has led to new challenges for indigenous peoples in their relationship with libraries and other cultural institutions, in that information that was previously only available in a physical format in a single institution is now accessible to any person with an Internet connection potentially leading to the mis-appropriation or mis-use of that information. In some respects this can be viewed as the re-colonization of this cultural and intellectual property, with no or very little control over distribution available to indigenous owners of information.

## Indigenous Librarianship and Western Individualism

In her poem, *Guidelines for the Treatment of Sacred Objects*, Anishinabe poet Heid Erdrich describes how cultural people and those in contact with indigenous material culture should respond. She considers the librarian as holding a special role in dealing with sacred items:

Guidelines for the treatment of sacred objects  
that appear or disappear at will  
or that appear larger in rear view mirrors,  
include calling in spiritual leaders such as librarians,  
wellness-circuit speakers and financial aide officers. (Erdrich 2008)

The Anishinabe are an indigenous people in North America who are also referred to as the Ojibwe or Chippewa. Lois Beardslee's novel *The Women Warrior Society* emphasizes the role of indigenous librarians by describing indigenous women reclaiming the space of the tribal library:

"The smoke rises from the carpet to the ceiling, thick and lazy, held in by the bookshelves. The women settle in, in a tight circle, welcoming one another's place-confirming touch in the darkness. [...] They say their names in their own native tongues, and they sing clan songs. And those who do not have clan songs, who have had that part of their history and selves stolen away from them, they are given clan songs" (Beardslee 2008).

Here the library is a sacred space that witnesses history and recognizes identity, validates language and respects indigenous control over indigenous culture. Beardslee's novel and Erdrich's poem offer a call for library practice of indigenous peoples' self-determination and cultural agency within the library.

Non-indigenous information professionals may serve as caretakers for the products of cultural expressions such as books, archival records and artifacts such as beadwork or carvings. They may be of the opinion that once such materials are separated from their creators their content is part of the public domain. Indigenous peoples may view these attitudes as an extension of colonialism and the subjugation of their cultures. Indigenous peoples become remote from materials that they originally created. Hirini Moko Mead refers to the need of indigenous people, in this case the Māori of New Zealand/Aotearoa, to affirm "cultural integrity" since:

"That portion of the culture held in museums and art galleries is firmly in Pakeha [non-indigenous people of European descent] hands. In such institutions a Māori is most often a manuhiri (visitor)" (Mead 1986).

Tribal libraries and indigenous librarians provide a model for non-indigenous librarians. It is important to recognize the practice of indigenous cultural collections, for example, in tribal libraries. First, some tribal libraries limit access to their collections. Lotsee Patterson explains the roles of diverse tribal libraries, “created and maintained by American Indian people on or near reservations”:

“Typically, these libraries have collections similar to regular public libraries with a special focus on American Indian history and culture. Some are open to the public, while others serve only the members of the tribal community” (Patterson 2008).

This last detail indicates the importance of limiting access to some materials as part of a practice of self-determination.

Alternatively, those tribal libraries that do not limit access to their collections still prioritize service to indigenous communities. This practice, Reegan Breu points out, counters that of mainstream libraries which, without claiming to do so, prioritize service to white, middle-class communities:

“Band [or, Tribal] libraries highlight the obvious, but rarely discussed: that libraries are ethnic, cultural, and linguistic spaces. Particularly, they render visible that which is invisible, namely, that mainstream libraries largely reflect and meet the needs of English-speaking [...], white, middle-class individuals” (Breu 2003).

Unmitigated access to indigenous peoples’ cultural knowledge and a lack of support for indigenous peoples’ own narratives perpetuates cultural imperialism in service of the white, middle-class constituency at the expense of indigenous communities. To counteract this current practice, Breu urges non-indigenous librarians to learn from tribal libraries: “they call on white, middle-class librarians to recognize their positions of power within library spaces and society,” and they “teach us that programs and services for Aboriginal peoples cannot be created in isolation from Aboriginal peoples” (Breu 2003). Like Alcoff’s call to create spaces for dialogue, Breu reminds librarians of a responsibility to:

“create social, physical, and cultural spaces and places where Aboriginal peoples can participate and make decisions about public libraries and librarianship” (Breu 2003).

A discussion about access to indigenous cultural knowledge must take place through the development of such spaces. Research undertaken in Aotearoa/New Zealand with Māori youth however demonstrated that creating the ‘space’

is only part of the answer and needs to be supplemented by actively engaging Māori in their own spaces as they do not use library facilities at the same levels as other ethnic groups in New Zealand (Lilley 2010).

A claim to academic study may seem to support a dangerous resistance to such dialogue. Part of the script of the contact between indigenous and non-indigenous peoples is the academic pursuit of indigenous culture. As anthropology developed as a discipline, so did the collection of indigenous material culture and publication of interpretations of content. Over time, the study of interests in indigenous lifeways has extended across the academic disciplines. Technical processes including archival processing, cataloging, exhibits management and labeling were used to describe and arrange collections of cultural material in ways that mirrored Western thought. Thus, when museums, libraries, and archives housed indigenous materials they became removed not only from their cultural origins but from their cultural contexts.

The discipline of librarianship further reproduces this decontextualization that seems to absolve non-indigenous librarians of a responsibility to educate themselves and to reflect on their own identities and decisions. Library human rights scholar Toni Samek describes the use of neutrality as this type of decontextualization: “Historically, the profession’s claim to library neutrality has drawn a line between professional issues such as literacy and so-called non-library issues such as war. A similar line has categorically divided library advocacy and library activism” (Samek 2007). To interrupt this history, Samek calls on “the international library movement known in the twenty-first century as *critical librarianship*, that aims to blur these lines and to expose them as both counter-intuitive and counter-productive to the development of more humanistic (and less techno-managerial) library and information work” (Samek 2007). Access, then, must not simply be an issue of techno-managerial information work, just getting the information out, but it must be an issue of humanistic, human rights, critical analysis.

A critical reading of access to indigenous cultural knowledge must then address the differences between Western, individualistic rights frameworks and group rights frameworks. While indigenous peoples consider cultural heritage communally owned, Western view credits ownership by the individual. This focus on the individual is most evident when discussions of copyright overwhelm consideration of traditional knowledge. Copyright allows individuals limited protection over their products for a time during which they might receive the greatest economic benefit. It does not recognize community ownership over time and it eventually opens the intellectual products to the public domain:

“By declaring the intellectual and cultural properties of indigenous peoples to be in the public domain – that is, to belong to everyone – the stage is equally well set for their conversion into private property” (Whitt 1998).

Thus, copyright not only does not respect traditional ownership, it opens up indigenous cultural expressions to appropriation and commodification. Whitt more simply opines that “copyrights offer legal and intellectual cover for cultural theft” (Whitt 1998).

This individualistic conception of property rights only perpetuates cultural imperialism. For example, in existing copyright law, legal scholar Alexandra Xanthaki explains:

“[c]opyright protection may not apply to traditional knowledge, where the material is deemed unoriginal and in the public domain, or where the misappropriation is a legitimate adaptation under copyright law. Also, current rules defy duration, as after a certain period of time, the object becomes part of public domain, and require a fixed object, rather than oral and expressive forms of culture” (Xanthaki 2009).

While contemporary discussions of access to knowledge largely support a radical departure from copyright, self-determination and control of cultural material is, as this chapter establishes, vital to current life and future generations of indigenous communities. DRIP thus protects, in Article 12, “the right to the use and control of their ceremonial objects” (United Nations. General Assembly 2007).

The group formulation of indigenous cultural rights also challenges the figure of the individual in Western human rights frameworks. The danger of the Western individualist framework is its perpetuation of the work of forgetting, as Ulf Johansson Dahre explains:

“The essential liberal attribute of the individual is ahistorical and universal. Human rights are therefore logically entailed by recognizing those attributes” (Dahre 2008).

Indigenous human rights documents thus offer a different framework which invites information specialists to bring their disciplinary respect for the archival past into the consciousness of their practice. While archives are beginning to acknowledge their role in documenting collective memory, archivists view their roles differently: “archival documents are not representations of collective memory and archival institutions are not storehouses of collective memory” (Hedstrom 2010). Indigenous human rights documents remind us of the vital truth that all collections are indeed storehouses of collective memory.



## Librarians and the Declaration on the Rights of Indigenous Peoples

Worldview is the concept often used to describe common beliefs held by indigenous peoples. It denotes an interrelationship or guardianship between peoples and with the land. Worldview describes the commitment of indigenous peoples to serve as advocates for future generations. These beliefs are passed down from generation to generation and are evident in indigenous oral histories of origin, emergence, and migration (Battiste and Henderson 2000).

Acknowledging an indigenous worldview, in turn, makes obvious the substantial influence of the non-neutral Western worldview. Tellingly, Linda Tuhiwai Smith describes this worldview as the West's cultural archive, drawing on Michel Foucault's language. Individualism, for example, is part of the West's cultural archive (Smith 1999). Recognizing this divergent worldview makes obvious the impossibility of neutrality, that claim so dear to the library profession. Stavenhagen applies this concept to human rights: "Human rights policies are not entirely neutral because they are the result of values shared by the majority or dominant culture in any given society at any one time. The fact that they are dominant does not necessarily make them universal" (Stavenhagen 2001). This explanation helps one to understand that the concept of access as a benefit is not universal and can violate indigenous peoples' cultural rights.

Information specialists and indigenous peoples view the objects and cultural materials in collections differently. Librarians have a body of professional codes – from the American Library Association's (ALA's) key action areas, Core Values, Code of Professional Ethics, and the Library Bill of Rights, along with its interpretations. These documents support the librarian's caretaking and advocacy roles. On the other hand,

"indigenous people don't separate their interests in cultural heritage and history from other elements of their lives. In general, people want control and ownership of their own cultural places and the remains of their ancestors and their history as part of their struggle for social justice, self-determination, and sovereignty. These things are closely linked to Indigenous people's relationship to land, and their desire for land rights" (Colley 2002).

A brief exploration of how information specialists' conceptions of human rights differ from indigenous peoples' conceptions of rights demonstrates the need to shift that understanding to include indigenous peoples' human rights documents. A growing emphasis within librarianship on supporting human rights indicates a positive shift away from the false neutrality Samek criticized. A critical look at human rights, however, will strengthen information specialists' ability to learn from and advocate with marginalized peoples. Kathleen

McCook and Katherine Phenix identify the UDHR as a useful tool for librarians promoting “the principles of human rights in practice,” and they document the ALA’s Resolution on IFLA’s position on Human Rights and Freedom of Expression, which supports UDHR, Article 19:

“Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive, and impart information and ideas through any media and regardless of frontiers” (McCook and Phenix, 2006; United Nations. General Assembly. 1948).

While access to information is vital, it can be problematic when used as a tool of cultural imperialism; such a perspective suggests that human rights are sometimes relative rather than universal. Stavenhagen explains that, even at the drafting of the UDHR in the 1940s

“American anthropologists considered it to be embodying the values of only one culture, and they questioned the automatic applicability of these standards to other cultures” (Stavenhagen 2001).

The result of an individualistic framework for copyright and freedom of expression, for example, has resulted in cultural appropriation of indigenous knowledge and the support of a business model of speech rights.

Shiraz Durrani and Elizabeth Smallwood explain that the too-general language of the ALA and intellectual freedom advocacy for “neutrality” policies result not in actual (impossible) neutrality, but in a collection and practice defined by corporate interests. Globally, they argue, libraries have

“become increasingly isolated from the majority of people in their local communities. Forces of corporate globalization then push them even further from their communities by offering to save staff time and mental effort by supplying pre-packaged ‘best sellers’, guaranteed to meet the wants of 30% of the population – and to boost the profit margins of transnational publishers and booksellers” (Durrani and Smallwood 2008).

In the name of the free market, these library scholars point out, libraries are losing ground. This trend towards the appropriative blockbuster and away from truly diverse expression, Cees Hamelink observes, is buoyed by individualistic property rights:

“There is presently an almost monopolistic control over the world’s cultural heritage and the small individual or communal producers of

literature, arts or music hardly benefit from the current international legal protection” (Hamelink 2003).

That is, current ‘universal’ rights are protecting the Western free market rather than protecting or advocating for marginalized peoples. In fact, the UDHR does not mention indigenous peoples or minority groups.

Considering cultural rights as group rights can provide a counterbalance the imperialist dangers of an individualistic right to free speech. Holder describes one view that “cultural rights are the collective corollary to individual rights of free expression. Cultural rights are the rights of collectives and those who constitute them to express themselves as collectives” (Holder 2008). Significantly, this framework also shifts from a property model of rights to a relationship model of rights:

“Rights to physical objects, material conditions, and distinctive patterns of familial or political relationships are included in cultural rights not because these are the constitutive elements of indigenous cultures, but rather because access to and control over them is necessary for indigenous peoples to *be cultural* on terms of their own choosing” (Holder 2008).

Cultural rights, then, can temper individualistic intellectual freedoms to support the self-determination of indigenous peoples.

A look at the Declaration on the Rights of Indigenous Peoples (DRIP) offers a useful tool for information specialists. DRIP formulates the two efforts we are calling for in this chapter: the support of indigenous cultural production and the respect for indigenous self-determination of their cultural materials and texts. Articulating a foundation for both of these objectives, Article 12 of DRIP states:

1. Indigenous peoples have the right to practice and revitalize their cultural traditions and customs. This includes the right to maintain, protect and develop the past, present and future manifestations of their cultures, such as archaeological and historical sites, artefacts, designs, ceremonies, technologies and visual and performing arts and literature.
2. States shall provide redress through effective mechanisms, which may include restitution, developed in conjunction with indigenous peoples, with respect to their cultural, intellectual, religious and spiritual property taken without their free, prior and informed consent or in violation of their laws, traditions and customs. (United Nations. General Assembly. 2007)

Other articles throughout the document echo these terms. The call for support of indigenous cultural production appears in Article 12 as “the right to manifest, practice, develop and teach their spiritual and religious traditions, customs and ceremonies”; Article 15 states “the right to the dignity and diversity of their cultures, traditions, histories and aspirations which shall be appropriately reflected in education and public information”; and Article 16 advances “the right to establish their own media in their own languages and to have access to all forms of non-indigenous media without discrimination” (United Nations. General Assembly. 2007). The call for the recognition of indigenous self-determination of access to cultural knowledge appears in counterparts of the same articles. For example, Article 12 reads “States shall seek to enable the access and/or repatriation of ceremonial objects and human remains in their possession through fair, transparent and effective mechanisms developed in conjunction with indigenous peoples concerned,” and Article 15 advances that “States shall take effective measures, in consultation and cooperation with the indigenous peoples concerned, to combat prejudice and eliminate discrimination and to promote tolerance, understanding and good relations among indigenous peoples and all other segments of society” (United Nations. General Assembly. 2007). The interweaving of these two sets of rights emphasizes the centrality of cultural knowledge to indigenous communities and the need for self-determination to counteract cultural imperialism.

The articles within DRIP, relate directly to other declarations previously developed by indigenous peoples, most notably the Mātaatua Declaration on Cultural and Intellectual Property Rights of 1993, which stated that “the first beneficiaries of indigenous knowledge (cultural and intellectual property rights) must be the direct indigenous descendants of such knowledge” (Mātaatua Declaration 1993).

## Professional Organizations on Cultural Materials Policy

Driven by the work of indigenous information specialists and organizations, profession-wide information organizations are creating the scaffolding to advocate indigenous self-determination and modeling collaboration with non-indigenous allies.

In Australia, the Aboriginal and Torres Strait Islanders Library and Information Resource Network (ATSILIRN) not only was involved in developing national protocols but supported a study of the status of their implementation (Aboriginal and Torres Strait Islander Library Information and Resource Network 1995, 2005; Aboriginal and Torres Strait Islander Library Information and Resource Network 2006).

In 2002, the Governing Board of IFLA (International Federation of Library Associations and Organizations) approved the “Statement on Indigenous

Traditional Knowledge.” This statement provides among the most balanced professional opinion on the role of librarians:

“IFLA acknowledges the intrinsic value and importance of indigenous traditional knowledge and local community knowledge, and the need to consider it holistically in spite of contested conceptual definitions and uses” (IFLA 2002).

Access is supported by making resources available and promoting their existence while IFLA also recognizes the need to protect traditional knowledge and “encourage the recognition of principles of intellectual property to ensure the proper protection and use of indigenous traditional knowledge and products derived from it” (IFLA 2002). A Special Interest Group on Indigenous Matters was formed in December 2008 that will review this and other IFLA documents as well as address key issues impacting libraries worldwide.

The International Indigenous Librarians’ Forum (IILF) met for the first time in 1999. At its 2003 meeting in Santa Fe, the IILF developed a manifesto that called for libraries and other cultural institutions to develop policies and practices that are culturally responsive. The manifesto explains the significance and necessary components of such policies as:

Initiatives to exert control over their intellectual and cultural property, to retain language, to preserve cultural practices are equally important goals shared in common. Therefore, the need to understand these issues in relationship to library information services, the following set of principles apply:

- i. Traditional knowledge is the intellectual property of indigenous peoples;
- ii. Protection of their cultural heritage is the right of indigenous peoples; and
- iii. The primary rights of the owners of a culture must be recognized by library information providers, which should adopt strategies proposed in Aboriginal and Torres Straits Islander Protocols for Libraries, Archives and Information Services (International Indigenous Librarians Forum 2008).

The ALA is in the process of developing guiding documentation for its Council which will determine whether the IILF manifesto should be incorporated into ALA policy. ALA’s Washington Office and its Office for Information Technology Policy (OITP) is represented at WIPO meetings and these bodies have felt that ALA needs to have a policy statement to bring forward at those gatherings. The Washington Office hosted the meeting, “Cultural Heritage and Living Culture: Defining the United States Library Position on Access and

Protection of Traditional Cultural Expression” November 12-14, 2008. Attending were representatives from not only the academic, legal, museum, and tribal communities within the United States but also representatives from Australia, New Zealand and Switzerland. A group emerged from this information that worked for a year to draft the document “Librarianship and Traditional Cultural Expressions: Nurturing Understanding and Respect” (ALA 2010).

At the ALA 2010 Midwinter Meeting, the Chair of ALA’s Committee on Legislation determined that the document was not adequately vetted and crafted for sharing with ALA Council. Subsequent to the meeting, ALA President, Camila Alire, appointed a new Presidential Task Force that was charged with:

- Reviewing the background and development of the “Librarianship and Traditional Cultural Expressions” document;
- Reviewing other relevant material, including communication brought by groups within ALA or external groups with interests in the topic;
- Proposing any needed revisions to the original document; and
- Preparing a revised draft document for discussion and approval by the ALA Council at the 2011 ALA Midwinter meeting (Alire 2010).

Members of this Presidential Task Force illustrate the wide ranging interest in the topic. Co-chaired by representatives of the OITP Advisory Committee and ALA’s International Relations Committee, members were selected to represent other ALA Committees (Intellectual Freedom Committee, Committee on Legislation, and ALA Joint Committee on Archives, Libraries and Museums), a division of ALA (the Association of College and Research Libraries) and members of the five ethnic library associations affiliated with ALA – the American Indian Library Association; the Asian Pacific Library Association; the Black Caucus of the American Library Association (BCALA); the Chinese American Library Association; and, REFORMA (the National Association to Promote Library and Information Services to Latinos and the Spanish Speaking).

Digitization and aspects of providing electronic access to information has further prompted discussions of access. Still, while espousing open access and network neutrality, even professional statements declare that “library access should be crafted in collaboration with communities to reflect local needs and conditions” (ALA 2003). The United States Association of Research Libraries released its “Principles to Guide Vendor/Publisher Relations in Large-Scale Digitization Projects of Special Collections Materials” in 2010. Principle 1, “Distinct Collections Demand Extra Vigilance in Digitization,” recommends that “at a minimum, careful consideration should be given to copyright, privacy (including the presence of personal indentifying information), moral and cultural heritage concerns” (Association of Research Libraries 2010).

In New Zealand the introduction of a professional registration scheme for library and information professionals in 2007 has led to a requirement for reg-

istrants to demonstrate that they have knowledge and have undertaken continuing professional development in the area of mātauranga Māori (Māori knowledge). Furthermore institutions offering library and information education programs are required to incorporate mātauranga Māori into their curriculums. The net impact of these requirements is the expectation that Māori and non-Māori library and information professionals will have an understanding of Māori worldviews, knowledge structures, information needs and relevant information resources and services (Library and Information Association of New Zealand Aotearoa 2010).

## Suggestions for Library Practice: Policies from Protocols

What concerns do information professionals have about the development of such principles?

1. There is concern that opening agreements with indigenous communities will open the floodgates for approaches from other groups that claim they should have control over traditional cultural expressions.
2. There is concern with definitions, starting with who is indigenous. Isn't everyone from somewhere and, therefore, an indigenous person? What do we mean by cultural property? What about indigenous cultural expression? How are these terms related to traditional knowledge and indigenous intellectual property?
3. There is concern that other groups will claim control in order to make monetary claims on cultural expressions.
4. There is concern that indigenous communities and others will not only require changes in access to content but will also request return of materials.
5. There is concern that communities will reclaim materials and then be unable to care for them properly.
6. There is concern that limiting access will lead to reduced options for scholarship and academic study.
7. There is concern that any change in practice will be burdensome for libraries, archives, and museums.
8. There is thinking that copyright and patents provide adequate and rightful protection of intellectual content.

Tribal communities may have protocol that guides human interactions especially on tribal homeland areas. Often, tribal protocol is tied to tribal religious beliefs; sacred knowledge may be treated differently from social or everyday life. In other cases, protocol may be based on long standing disregard for tribal members' privacy, such as guidelines governing any kind of photography.

Statements on expected behavior may be publicly posted on the entrance of tribal lands.

In 2006, a gathering of nineteen Native and non-Native representatives from cultural institutions drafted “The Protocols for Native American Archival Materials.” The Native American Archivists Roundtable of the Society of American Archivists (SAA) presented the Protocols to the SAA Council. As a result of initial comments, SAA opted to host of open meetings from 2009 through 2011. Given that concepts surrounding traditional cultural expressions are novel and challenging to many SAA members, the three years will allow for at least some members to become more aware of the issues. The 2010 address by the SAA President, Peter Gottlieb, illustrates a flexibility in thought that might have been unheard of prior to the drafting of the protocols:

“Cultural property issues challenge us as archivists because they have many facets. They require us to think not only about different ways to appraise, to describe, and to provide access to collections, they also require us to think about fundamental archival principles and values, like diversity, equal and open access, and even justice” (Gottlieb 2010).

Protocol can extend to the creation of new content based on witnessing cultural expressions. One example is the tribal website of the Pueblo of Ysleta del Sur in Socorro, Texas, USA. This information is provided especially for visitors to feast day events:

“Ysleta del Sur Pueblo celebrates several feast days in honor of Catholic saints throughout the year. The feast day celebration is a merging of the traditional Tigua seasonal rites, such as planting and harvesting, with Catholicism. The feast day dances are religious ceremonies, not social gatherings or performances. The tribe asks that visitors be respectful of tribal observances and be considerate by not interrupting ceremonies or tribal dances. Any photos or videos need to be approved by the Tribal Council Office. Attending tribal events such as ceremonial dances and feast days can bring visitors closer to an understanding of the proud Tigua heritage” (Ysleta del Sur Pueblo 2010).

With widespread access to digital content through the Internet, ownership and use of representations of cultural materials is more difficult to control. The degree of how indigenous peoples control the dissemination of information on the Internet is intensified by statutory harvesting of websites by national institutions. In New Zealand, this statutory responsibility is managed by the National Library which has a legal requirement to collect all New Zealand information published physically or electronically and to make this information available



for use by members of the public. If Māori wish to ensure that their private information and knowledge is not harvested for public use they must ensure that it is either available in a secure, passworded Web environment or not make this information available in this format (National Library of New Zealand 2010).

There are some examples of successful collaborations between Native peoples and the institutions that house their cultural materials: The Plateau Peoples' Web Portal at <http://libarts.wsu.edu/plateaucenter/portalproject/index.html> is hosted by Washington State University (WSU), USA, to provide an electronic environment to share and discuss materials held in the university's special collection and in the campus' Museum of Anthropology. Partners in this project included not only the academic faculty in the University's Plateau Center for American Indian Studies but also members of three tribal names – the Umatilla, the Coeur d'Alene and the Yakama. These collaborations extended from selection of content to be digitized to digital curation. Tribes are given access to an “admin” or administrator space for the Web portal. As an administrator, the tribes can select various levels of access to cultural knowledge. They decide whether images or text can be shown on culturally sensitive topics. Tribal members can also add content in text, audio, and video formats. This Web portal employs Web 2.0 features that allow online visits to sort content to create their own virtual collections, leave comments or add tags. Kimberly Christen, Assistant Professor at WSC is project director. WSU Special Collections librarian Trevor Bond describes how local academics and tribal communities view the Plateau People's Web Portal: “Unlike other online tools, Professor Christen has developed her portal with the values of indigenous peoples in mind” (Siegle 2009).

Previously, Christen was one of four researchers who collaborated with the Warumungu aboriginal community in Australia to create the Mukuru Archive available at <http://www.mukurtuarchive.org/>. Background on the homepage compares the virtual collection to a dilly bag, an aboriginal tote bag.

“The archive, like the dilly bag, is not meant to close off or hide knowledge. The archive uses Warumungu cultural protocols to facilitate access to content. In doing so, the archive mirrors a system of accountability in which many people engage in the responsible reproduction and transmission of cultural knowledge and materials” (Christen 2008).

In this case, the database provides access thousands of images according to tribal protocol, protecting, for example, images of women's rituals or women's work and allowing families to provide permission to view images of the deceased.

An example of a similar collaboration from New Zealand includes the repatriation by the University of Auckland Library of copies of nineteenth century manuscript material prepared by noted Māori scholar Whatahoro Jury to Ngati Kahungunu in the Wairarapa region (University of Auckland Library 2008).

These cases illustrate that what is needed is not so much a legal response to handling traditional cultural experiences than a set of principles that promote discussion and collaboration. Stamatopoulou explains that cultural rights offer the promise of such possibility for collaboration and policy:

“Cultural rights are of profound significance both because they have to do with identity and because they are a means of attaining economic and political objectives that cannot be attained more directly. The implementation of minority and indigenous cultural rights, far from being a soft agenda, can achieve, if taken seriously, transfer of resources to them from the dominant society and thus mend age-old injustice and discriminatory practices” (Stamatopoulou 2004).

By attending to indigenous peoples’ cultural rights, information specialists can work to acknowledge and interrupt colonial histories in the present.

## Conclusion: Librarians in the Age of the Seventh Fire

This chapter has emphasized the dual role of indigenous peoples’ cultural rights for access to knowledge: the need for support of indigenous cultural production and the vital importance of indigenous peoples’ self-determination of access to cultural knowledge. These cultural rights are founded in indigenous worldview and codified in the Declaration on the Rights of Indigenous Peoples. This discussion thus calls on information specialists to recognize that the claimed neutrality of their profession and universalism of human rights are constructed by historical moments and require reflection to understand our role in either oppressing or supporting indigenous peoples’ cultural rights. Indigenous librarians, tribal librarians, and professional organizations are in the process of developing documents that will inform respectful library, museum, and archive policies on support for the development of and restrictions on access to cultural information. Reagan Breu reminds readers that service to indigenous peoples requires a commitment (Breu 2003). Attending to these documents is the first step in committing to collaboration with indigenous communities and indigenous information specialists to generate informed library, museum, and archive policies.

Librarians have long faced challenges in providing patrons with access to information. Their beliefs in open access are confirmation of a strong founda-

tion built on the philosophy of intellectual freedom. Long before the profession of librarianship developed, indigenous peoples around the world survived within strong beliefs – a worldview – that were supported through the development of protocol or codes of behavior. While superficial thought sees a gap between library advocacy for intellectual freedom and control of traditional cultural expressions, these two belief systems can not only coexist, they can also be supportive of each other. The profession can look for guidance in cultural stories, such as the prophecies of the Anishinabe.

The Anishinabe people are dreamers and predictors. Among their dreams and predictions are the Prophecies of the Seven Fires (Peacock and Wisuri 2002). Hundreds of years ago the people moved east until they lived on the shores of the Atlantic Ocean. Over time, seven prophets arose, predicting that the Anishinabe would return, through a sequence of seven moves, to the west and stop when they found food growing on water near an island shaped like a turtle. Each move would guarantee the survival of the people; if they chose not to move, then they would not live. The first prophet told them to follow the sign of a cowrie shell, the grand megis. This was the Prophecy of the First Hearth Fire. Their second move or fire was prompted by the prediction that a young boy would help them recover their traditional lifeways; they continued to follow the rivers during their third move toward the land where food grew on water. The fourth prophet predicted the arrival of Europeans as people whose faces of death would be mistaken as the faces of brotherhood. The fifth fire was the prediction of the loss of traditional religious expression. The sixth prophet told of a time of great sadness and even greater loss of culture, including language erosion, disruption of traditional family life, economic strife and health challenges. Today, the Anishinabe are emerging from the sixth fire. The seventh prophet predicted that a new people would emerge in the seventh fire. This new people, or Osh-ki-bi-ma-di-zeeg, have the potential to recover lost elements of the culture, if they make the right decisions. This right road of life would ignite a final fire of peace and brother/sisterhood. If they take the wrong road, then the result could be degradation of the natural resources and death to all peoples.

The authors predict that librarians' role in this impending age of the seventh fire is a critical one. It may be up to librarians to help ensure that the communities they serve have the information to choose the right path. The library can provide the social space to lead the lighting of the eighth fire, a fire that will flourish through not only providing information but also respecting and protecting cultural knowledge.

## References

- Aboriginal and Torres Strait Islander Library Information and Resource Network. *AT-SILIRN Protocols*. 1995, 2005.  
[www.l.aiatsis.gov.au/atsilirn/protocols.atsilirn.asn.au/index0c51.html?option=com\\_frontend&Itemid=1](http://www.l.aiatsis.gov.au/atsilirn/protocols.atsilirn.asn.au/index0c51.html?option=com_frontend&Itemid=1) [Mar. 2011.]
- . *Mapping the Aboriginal and Torres Strait Islander Protocols for Libraries, Archives and Information Services*. 2006.  
[http://asset0.aiatsis.gov.au:1801/webclient/StreamGate?folder\\_id=0&dvs=1292954487543~272](http://asset0.aiatsis.gov.au:1801/webclient/StreamGate?folder_id=0&dvs=1292954487543~272) [Mar. 2011.]
- Alcoff, L. “The problem of speaking for others.” *Cultural Critique*, 20. Winter (1991): 5-32.
- Alire, C. “Traditional cultural expressions update.” 2010. Email to ALA Council.
- American Library Association. *Principles for the Networked World*. 2002.  
[www.ala.org/ala/aboutala/governance/policymanual/updatedpolicymanual/section2/50natinfosvc.cfm#50.15](http://www.ala.org/ala/aboutala/governance/policymanual/updatedpolicymanual/section2/50natinfosvc.cfm#50.15) [Mar. 2011.]
- . *Librarianship and Traditional Cultural Expressions: Nurturing Understanding and Respect*. 2010. <http://wo.ala.org/tce/wp-content/uploads/2010/02/tce.pdf> [Mar. 2011.]
- Association of Research Libraries. *Principles to Guide Vendor/Publisher Relations in Large-Scale Digitization Projects of Special Collections Materials*. 2010.  
[www.arl.org/bm~doc/principles\\_large\\_scale\\_digitization.pdf](http://www.arl.org/bm~doc/principles_large_scale_digitization.pdf) [Mar. 2011.]
- Battiste, M. and Henderson, J. *Protecting Indigenous Knowledge and Heritage: A Global Challenge*. Saskatoon, Canada: Purich Publishing, 2000.
- Beardslee, L. *The Women’s Warrior Society*. Tucson: U of Arizona P, 2008.
- Breu, R. D. “Band and tribal libraries: what mainstream public libraries can learn from Them.” *Feliciter: Linking Canada’s Information Professionals*, 5 (2003): 254-257.
- Christen, Kimberly. *Mukurtu: Wumpurrarni-kari Archive*. 2008.  
<http://www.mukurtuarchive.org> [Mar. 2011.]
- Clark, D. A. T. “Not the end of the stories, not the end of the songs: Visualizing, signifying, counter-colonizing.” Mihesuah, D. A. and Wilson, A. C., eds. *Indigenizing the Academy: Transforming Scholarship and Empowering Communities*. Lincoln: U of Nebraska P, 2004.
- Colley, S. *Uncovering Australia: Archaeology, Indigenous People and the Public*. Crow’s Nest, New South Wales, Australia: Allen and Unwin, 2002.
- Commission on Human Rights, Sub-Commission of Prevention of Discrimination and Protection of Minorities Working Group on Indigenous Populations. *Mātaatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples*. 1993.  
[www.wipo.int/export/sites/www/tk/en/folklore/creative\\_heritage/docs/Mātaatua.pdf](http://www.wipo.int/export/sites/www/tk/en/folklore/creative_heritage/docs/Mātaatua.pdf) [Mar. 2011.]
- Dahre, U. J. “The politics of human rights: Indigenous peoples and the conflict on collective human rights.” *The International Journal of Human Rights*, 12.1 (2008): 41–52.
- Dion, S. *Braiding Histories: Learning from Aboriginal Peoples’ Experiences and Perspectives*. Vancouver, Canada: University of British Columbia Press, 2009.
- Durrani, S. and Smallwood, E. “The professional is political: Redefining the social role of public libraries.” Lewis, A., ed. *Questioning Library Neutrality: Essays from Progressive Librarian*. Duluth: Library Juice Press, 2008.
- Erdrich, H. E. *National Monuments*. East Lansing: Michigan State University Press, 2008.
- Gottlieb, P. *Archivists and the Challenge of Cultural Property*. Western Roundup Conference, Seattle, WA, April 28 – May 1, 2010.

- [www.archivists.org/governance/presidential/Gottlieb\\_WesternRoundup\\_042910.pdf](http://www.archivists.org/governance/presidential/Gottlieb_WesternRoundup_042910.pdf) [Mar. 2011.]
- Hamelink, C. J. "Cultural rights in the global village." Goonasekera, A, Hamelink, C. and Iyer, V., eds. *Cultural Rights in a Global World*. Singapore: Eastern Universities Press, 2003.
- Hedstrom, M. "Archives and collective memory: more than a metaphor, less than an analogy." Eastwood, T. and MacNeil, E. eds. *Currents of Archival Thinking*. Santa Barbara: Libraries Unlimited, 2010.
- Holder, C. "Culture as an activity and human right: An important advance for indigenous peoples and international law." *Alternatives: Global, Local, Political*, 33.1 (2008): 7-28.
- Hunter, A. A. "Teaching Indigenous Cultural Resource Management." Mihesuah, D. A. and Wilson, A. C., eds. *Indigenizing the Academy: Transforming Scholarship and Empowering Communities*. Lincoln: University of Nebraska Press, 2004.
- IFLA. *IFLA Statement on Indigenous Traditional Knowledge*. 2002. [www.ifla.org/en/publications/ifla-statement-on-indigenous-traditional-knowledge](http://www.ifla.org/en/publications/ifla-statement-on-indigenous-traditional-knowledge) [Mar. 2011.]
- International Indigenous Librarians' Forum. *Background and Outcomes from Previous Fora*. 2008. [www.trw.org.nz/iilf2009\\_outcomes.php](http://www.trw.org.nz/iilf2009_outcomes.php) [Mar. 2011.]
- Justice, D. H. *Our Fire Survives the Storm: A Cherokee Literary History*. Minneapolis: U of Minnesota P, 2006.
- Kent, J. *Anniversary of Return of Ghost Dance Shirt*. 2009. [www.sdpb.org/tv/shows.aspx?MediaID=39544&Parmtyp=RADIO&ParmAccessLevel=0%20dpb-all](http://www.sdpb.org/tv/shows.aspx?MediaID=39544&Parmtyp=RADIO&ParmAccessLevel=0%20dpb-all) [Mar. 2011.]
- Lilley, S. *The Information Seeking Behavior of Māori Secondary School Students*. Unpublished PhD thesis, Massey University, Palmerston North, New Zealand, 2010.
- McCarthy, C. *Exhibiting Māori: A History of Colonial Cultures of Display*. Wellington, New Zealand: Te Papa Press, 2007.
- McCook, K. and Phenix, K. J. "Public libraries and human rights." *Public Library Quarterly*, 25.1/2 (2006): 57-73.
- Mātaatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples*. (1993) [www.ipcb.org/resolutions/htmls/Mātaatua.html](http://www.ipcb.org/resolutions/htmls/Mātaatua.html) [Mar. 2011.]
- Mead, H. M. *Te Toi Whakairo: The Art of Māori Carving*. Auckland, New Zealand: Reed, 1986.
- Patterson, L. *TRAILS: Tribal Library Procedures Manual*. 3<sup>rd</sup> ed. Chicago: American Library Association, Office for Literacy and Outreach Services, 2008.
- Peacock, T. and Wisuri, M. *Ojibwe Waasa Inaabidaa: We Look in All Directions*. Afton, MN: Afton Historical Society Press, 2002.
- Ring, K. "Tribe pleads for artifacts; Lakotas to visit Barre, plan protest at library." *Telegram and Gazette*, 21 June 2007.
- Samek, T. *Librarianship and Human Rights: a Twenty-First Century Guide*. Oxford: Chandos, 2007.
- Schaffer, K. and Smith, S. *Human Rights and Narrated Lives: The Ethics of Recognition*. New York: Palgrave/MacMillan, 2004.
- Siegel, G. "Plateau tribes to curate WSU digital collection." *WSU Today: Your University News Source*. 2009. <http://wsutoday.wsu.edu/pages/Publications.asp?Action=Detail&PublicationID=14066&PageID=21> [Mar. 2011.]

- Smith, L. T. *Decolonizing Methodologies: Research and Indigenous Peoples*. London: Zed, Dunedin, New Zealand: U of Otago P, 1999.
- Smith, S. P. *Hawaiki: The Whence of the Māori*. Wellington, New Zealand: Whitcombe and Tombs, 1910.
- . *The Lore of the Whare-Wananga, Or, Teachings of the Māori College on Religion, Cosmogony and History*. New Plymouth, New Zealand: The Polynesian Society, 1913.
- Stamatopoulou, E. and Bauer, J. “Why cultural rights now?” Carnegie Council. 2004. [www.cceia.org/resources/transcripts/5006.html](http://www.cceia.org/resources/transcripts/5006.html) [Mar. 2011.]
- Stavenhagen, R. “Cultural rights: A social science perspective.” Eide, A., Krause, C., and Rosas, A., eds. *Economic, Social and Cultural Rights: A Textbook*. Dordrecht. The Netherlands: Martinus Nijhoff, 2001.
- Streissguth, T. *Wounded Knee 1890: The End of the Plains Indian Wars*. New York: Facts on File, 1998.
- Symonides, J. “Cultural rights: A neglected category of human rights”. *International Social Science Journal UNESCO*, 50.158 (1998): 559-572.
- United Nations. General Assembly. *Declaration on the Rights of Indigenous Peoples*. 2007. [http://issuu.com/karinzylsaw/docs/un\\_declaration\\_rights\\_indigenous\\_peoples](http://issuu.com/karinzylsaw/docs/un_declaration_rights_indigenous_peoples) [Mar. 2011.]
- . *Universal Declaration of Human Rights*. 1948. [www.un.org/en/documents/udhr/index.shtml](http://www.un.org/en/documents/udhr/index.shtml) [Mar. 2011.]
- University of Auckland Library. *Annual Report 2007*. 2008. [www.library.auckland.ac.nz/about/annrep/arep07.pdf](http://www.library.auckland.ac.nz/about/annrep/arep07.pdf) [Mar. 2011.]
- Weaver, J. *That the People Might Live: Native American Literatures and Native American Community*. New York: Oxford UP, 1997.
- Whitt, L. A. “Cultural imperialism and the marketing of Native America.” Mihesuah, D. A., ed. *Natives and Academics: Researching and Writing about American Indians*. Lincoln: U of Nebraska P, 1998.
- . “Cultural imperialism and the marketing of Native America.” Champagne, D., ed. *Contemporary Native American Cultural Issues*. Walnut Creek: AltaMira, 1999.
- Wilson, A. C. “Grandmother to granddaughter: generations of oral history in a Dakota family.” Mihesuah, D. A., ed. *Natives and Academics: Researching and Writing about American Indians*. Lincoln: U of Nebraska P, 1998.
- Xanthaki, A. “Indigenous rights in international law over the last 10 years and future developments.” *Melbourne Journal of International Law*, 10.1 (2009): 27-37.
- Ysleta del Sur Pueblo. *Ysleta del Sur Pueblo Events*. 2010. [www.ysletadelсурpueblo.org/event\\_detail.sstg?id=30](http://www.ysletadelсурpueblo.org/event_detail.sstg?id=30) [Mar. 2011.]



# Access to Knowledge as a Social Practice: Information Literacy Education for MA Students

Maria-Carme Torras i Calvo

*Library Director*

*Bergen University College Library, Norway*

## Introduction

Rapid technological developments as well as changing trends in scholarly publishing and communication have made student's access to and interaction with scientific knowledge a complex and often overwhelming experience. In the words of a first term Master of Arts (hereafter MA) student<sup>1</sup>: "The difficult thing is to find just what you need, and not thousands of articles about completely irrelevant stuff." Against this backdrop, the academic librarian's educational role needs to be reconsidered if the academic library, with its expertise and wealth of sources, is to stay relevant and add value to the student's academic experience.

The aim of this chapter is to explore how the academic librarian can facilitate MA students' access to knowledge. More specifically, a model of information literacy education is put forth which aims at facilitating students' access to scientific knowledge in their research process. Access to knowledge is understood in this chapter as *intellectual* access (Buckland 1991), and not just as physical/electronic access to sources of knowledge. Students' intellectual access to knowledge encompasses the following aspects:

1. Defining what knowledge needs to be accessed at a given stage of the research process;
2. Finding existing knowledge in relevant sources in an efficient and critical way; and
3. Using and disseminating the accessed knowledge in a creative and ethical way in the context of one's academic work.

One important point that will be made in this chapter is the academic librarians' need to ground their practice in educational theory and research. Tradi-

---

1 This quote is taken from a written evaluation of a library course in advanced literature searching for MA students.



tionally, information professionals have had little research experience or background in educational theory and research in their training. In their role as knowledge access facilitators, academic librarians need to provide relevant and timely intervention in students' research process. Academic librarians will be in a better position to define the intervention, if they have basic understanding of the following issues:

1. What the student's research and learning processes are like;
2. What qualifications are expected from the student by the educational framework; and
3. How teaching may enhance or hinder the student's research and learning processes.

Knowledge of these issues not only enriches librarians' educational practice, but it also enhances their legitimacy as stakeholders in the higher education landscape. To design the model of information literacy education presented in this chapter, a literature study of the most influential works on teaching, supervising and learning in Norwegian Higher Education was undertaken. These works were identified by examining the literature on which Norwegian Higher Education Pedagogy programs are built. The author was enrolled in the University of Bergen program at the time. The study also examined the *Qualifications Framework for European Higher Education Area* (Bologna Working Group on Qualifications Framework 2005) and the corresponding Norwegian framework, *Kvalifikasjonsrammeverket for høyere utdanning* (Kunnskapsdepartement 2009) to consider their impact on information literacy education. Based on these documents and literature, a model of information literacy workshops was designed and implemented since 2008. The workshops have been evaluated by students in written form. In the future, evaluation of the workshops will also be carried out through focus group interviews. Examples of information literacy education at the University of Bergen Library are presented in the chapter to illustrate how librarians' practice can be informed by educational theory and research findings.

This chapter is organised as follows:

- The main challenges that MA students face in their research process, as revealed by the literature on academic writing, academic supervision and student information search behaviour;
- A consideration of how library user education can contribute to the attainment of the qualifications required from the student. Subsequently, a model of information literacy education is outlined, which is underpinned by the conception of learning as social phenomenon (Lave and Wenger 1991) and Kvale's (1997) education model of *research apprenticeship*;

- An exploration of how organised group support in the form of library workshops can facilitate the MA student’s intellectual access to knowledge. In this kind of library intervention, the librarian mainly adopts a *counsellor* role (Kuhlthau 2004), rather than that of a *locator* or *identifier*. The focus of this kind of intervention goes beyond students’ location of existing knowledge. It emphasises students’ interpretation and use of knowledge for learning (Kuhlthau 2004) and the creation of new knowledge. The section on Constructive Alignment in the Design of Workshops highlights the importance of designing *aligned* (Biggs 2003) information literacy education; and
- An examination of the main challenges that librarians face when applying research apprenticeship to information literacy education.

## The Quest for Knowledge: Student Challenges

This section aims to provide a picture of the challenges that accessing existing knowledge pose for MA students, especially at the initial stages of their research process. Table 1 schematises the phases that Humanities and Social Science MA students go through in their research process.

Choice of topic	Defining research question	Reading and data collection	Draft writing	Draft rewriting and editing	Closure
-----------------	----------------------------	-----------------------------	---------------	-----------------------------	---------

Table 1: Phases in the MA research process in the Humanities and Social Science

Searching for existing knowledge and writing constitute essential components of the research process. Searching and writing are intertwining processes and, for this reason, the process described in Table 1 cannot be understood as a completely linear process. The student’s contribution to knowledge communicated in their writing is dependent on their access to existing knowledge. Access to existing knowledge is in turn dependent on appropriate literature searching. The reader is referred to Torras and Sætre (2009) for a more detailed description of the information searching and writing processes and their interaction throughout the student’s research process.

Research on academic writing (Dysthe et al. 2000; Kamler and Thomson 2006) and on student information searching behaviour (Kuhlthau 2004) reports on a number of student challenges related to access of knowledge, amongst them:

1. Defining information needs to access the knowledge required in a given phase of the research process;
2. Dealing with a large number of available sources;
3. Gaining a reasonable overview of the existing body of literature;
4. Selecting what to read from the available body of literature;
5. Reading the available literature with different aims;
6. Using the knowledge accessed in the context of one's research question; and
7. Documenting the knowledge accessed in one's work in an ethical and responsible way.

At an emotional level, Kuhlthau (2004), among other researchers such as Dysthe (2006), observes that students commonly feel uncertainty at different stages of their research process. Dysthe notes that:

“Uncertainty is a cognitive state that commonly causes affective symptoms of anxiety and lack of confidence. Uncertainty and anxiety can be expected in the early stages of the information search process. The affective symptoms of uncertainty, confusion, and frustration are associated with vague, unclear thoughts about a topic or question. As knowledge states shift to more clearly focused thoughts, a parallel shift occurs in feelings of increased confidence.”

In Kuhlthau's model, uncertainty is inherent in the research process and a trigger for the information-searching process. However, being able to come to terms with uncertainty is essential for the student to make progress in the research process. Humanities and Social Science students are generally expected to produce work which is the result of individual research. Isolation (Samara 2006) may easily add to the feelings of uncertainty, thus, making the initial phases of the research process more challenging at an emotional level.

Humanities and Social Science MA students embark on a research project where access to knowledge has traditionally been the supervisee and the supervisor's domain. The librarian has typically offered sporadic *ad hoc* supervision (Handal and Lauvås 2006) and/or the librarian has mainly played a *locator* or *identifier* role (Kuhlthau 2004). The librarian is contacted only when the student experiences a specific problem, such as tracking down a reference recommended by the supervisor. The question which needs to be addressed is how can the librarian support in a more proactive way the MA student already in the very initial phases of the research process?

Accessing knowledge is a challenging key task at the initial stages of selecting a topic and formulating a research question (Table 1). The initial stages are typically dominated by feelings of uncertainty and confusion. Research on academic supervision stresses the benefits of both individual and group super-

vision at the initial stages of the students' research process (Handal and Lauvås 2006; Cavallin 2006).

## The Educational Framework: Expectations of the Student

In designing user education that facilitates student's access to knowledge, it is not only necessary to be aware of the student's research process and the difficulties entailed. It is also important to bear in mind the educational framework and the expectations that higher education has of the MA student. The question that academic librarians need to pose to themselves is: how can information literacy education contribute to students' achieving the degree qualifications expected of them? In the European context, learning outcomes established for library user education should be based on general skills, competences and knowledge defined by the *Qualifications Framework for European Higher Education Area* (Bologna Working Group on Qualifications Framework 2005) and corresponding national qualifications framework.

If information literacy education is embedded in the MA program, the program/course learning goals and outcomes will also be informed by the qualifications described in the European framework. In practical terms, this means that the learning outcomes defined for the embedded library workshops or courses should be consistent with the learning outcomes of the MA program or course. This consistency can also be defined as *alignment* (Biggs 2003). Alignment will be discussed in more detail in the section below which deals with that issue.

The MA program in Spanish Language and Latin American Studies offered at the University of Bergen, Norway, is taken here as an example to illustrate the relationship between the general educational framework and embedded information literacy education. A series of library workshops are embedded in this MA program, among them a workshop on Advanced Literature Searching for Thesis Writing. This workshop is embedded in the MA course SPLA 304 Preparing for the MA Thesis<sup>2</sup>. The general learning goal of SPLA304 is "... to provide students with a discipline background that enables them to write a research project statement for their MA thesis". Among the specific learning outcomes for this course, it is stated that students "... will have the skills to write a research project statement ... and ... will be able to formulate a research question, plan and carry out research process tasks".

---

2 The description of the SPLA304 course is available from [http://studentportal.uib.no/index.php?link\\_id=2227&sublink\\_id=&toplink\\_id=2411&mode=show\\_page&content\\_id=686&modus=vis\\_emne&kode=SPLA304](http://studentportal.uib.no/index.php?link_id=2227&sublink_id=&toplink_id=2411&mode=show_page&content_id=686&modus=vis_emne&kode=SPLA304). The title of the course and the learning outcomes have been translated from Norwegian by the author.

The learning outcomes just mentioned can only be attained if the student is able to access relevant knowledge. Gaining an overview of the literature is essential in order to be able to narrow a research question, write a research project statement and a literature review. These research activities involve mastering of skills such as defining information needs and finding and accessing existing literature in relevant discipline-specific resources. Accordingly, the following learning outcomes are defined for the library workshop on Advanced Literature Searching for Thesis Writing:

### Excerpt 1

After students have completed the workshop, they will:

- Be able to define information needs related to their MA research topic.
- Be familiar with relevant discipline-specific information resources.
- Be able to deploy and implement appropriate search strategies.
- Be able to assess the content and relevance of hit lists.
- Be able to find relevant information to gain an overview of their research topic and to gradually focus their research question.

Source: University of Bergen Library. Unpublished library workshop description.

At a more general level, the European Qualifications framework specifies a number of “qualifications that signify completion of the second cycle” (Bologna Working Group on Qualifications Framework 2005). Excerpt 2 encompasses qualifications related to the student’s application of knowledge:

### Excerpt 2

Qualifications that signify completion of **the second cycle** are awarded to students who:

(...)

- can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multi-disciplinary) contexts related to their field of study;
- have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements;

(...)

Source: Bologna Working Group on Qualifications Framework (2005).

The knowledge referred to in Excerpt 2 builds upon previously existing knowledge. The students' construction of knowledge and subsequent application of it is dependent on their ability to search and access the existing body of knowledge. In this sense, the learning outcomes of the library workshop above also contribute to achieving specific qualifications defined in the European Qualifications Framework.

It is important to note that qualifications described in the educational framework are translated into learning goals and outcomes. This is a matter that requires discussion between faculty and the academic library in order to reach a consensus on establishing learning goals and outcomes. Also requiring discussion is how responsibilities will be shared with regard to planning, teaching and assessing. Defining learning goals and outcomes is a specific instance of collaboration to achieve embedded information literacy education. The ultimate aim of this collaboration is to incorporate information literacy learning goals and outcomes into those of the MA course or program. This question will be further discussed through the concept of *alignment* in the section that deals with this issue (Biggs 2003).

## Access to Knowledge as a Social Practice: Library Workshops as Communities of Practice

This section advocates an educational practice of librarians which is consistent with their views and those of the institution on learning. A model of library workshops underpinned by Kvale's (1997) *research apprenticeship* is presented here, which aims to support the MA student with facing challenges and achieving the qualifications mentioned in the previous sections. Framed within a sociocultural approach to learning, the workshops are based on interaction, dialogue and *scaffolding* (Wood, Bruner and Ross 1976). They further build upon Dewey's principle of learning by doing and reflecting on one's own activities. Through the workshops, students' participation in a research *community of practice* is enhanced. The library workshops contribute to strengthening students' researcher identity and improving their access to knowledge practices. In so doing, they contribute to students' socialisation into the discipline.

This section is organised as follows:

1. Student learning is briefly characterised from a sociocultural perspective. Being aware of how learning takes place and reflecting on how the librarian's teaching practice can enhance learning are considered vital questions in the design of information literacy education.
2. Drawing upon a sociocultural perspective on learning, *research apprenticeship* is proposed as a model of organised information literacy education.

tion at the library. Subsequently, specific examples of workshops at the University of Bergen Library, Norway, are discussed to illustrate how research apprenticeship can be implemented at the library. The examples are meant to inspire the reader's own practice. They illustrate how a sociocultural approach to information literacy education may pan out in the classroom. They further show how students' participation in a community of practice can be strengthened while they improve their access to knowledge abilities.

3. The main features of research apprenticeship are summarised in relation to information literacy education.

## Learning as a Social Phenomenon: A Sociocultural Perspective on Learning

*Professional and autonomous educators* (Engelsen 2006) make theoretically founded and independent choices in their teaching and are willing and capable of examining their practice critically. The academic librarian is an educator who aims to facilitate the student's access to knowledge. Librarians' teaching practice must also be informed by their and their institution's views on how learning takes place.

The model of user education suggested in this chapter builds upon a socio-cultural perspective on learning, as put forward by Dewey (1933), Vygotskij (1967, 1978), Bakhtin (1981, 1986) and Lave and Wenger (1991). From this perspective, learning is a social phenomenon. It takes place primarily through the learner's participation in a community of practice, rather than through individual processes. Learning takes place through engaging with other peers in learning activities. Students construct knowledge through practical activities and reflection, in interaction with others and in a specific context. Learning is thus situated or contextualised. Language is an essential component of the learning process, and for this reason, it is important to foster dialogue in teaching situations.

At the same time, students' identity as researchers also develops as they interact and engage in learning activities. Students are *legitimate peripheral participants* (Lave and Wenger 1991) of the academic community. They gradually become *complete* members through their participation in an academic community of practice, as well as by being trained and acquiring more knowledge of their field. The researchers' identity, as a member of the academic community, is characterised for instance by mastering of skills to access and manage knowledge and by endorsing an ethical code of conduct. The next sections present a model of information literacy education which contributes to students' development of skills and identity, while enhancing their participation in a community of practice.

## Research Apprenticeship: Participating in a Community of Practice

The concept of information literacy education discussed in this section draws upon Kvale's (1997) model of *research apprenticeship*, which in turn draws upon Lave and Wenger's (1991) theory of learning as a social practice. Kvale highlights four aspects of apprenticeship in the training of researchers: participation in communities of practice; learning by doing; evaluation through practice; and, acquiring a professional identity. In what follows, these four aspects are analysed and applied to information literacy education at the library.

Research apprenticeship enables organised research education which facilitates the student's legitimate participation in a community of practice. Wenger (2001) defines a *community of practice* as "a group of people who share an interest in a domain of human endeavor and engage in a process of collective learning that creates bonds between them..." A community of practice is characterised by type of domain, community and practice. Membership involves knowledge, however basic, of the particular domain of the shared interest. There is a minimum shared competence. Members build relationships and a community around their domain by engaging in joint activities and dialogue, sharing information, helping each other and learning together. Over time, members develop a shared practice consisting of common "experiences, stories, tools, ways of addressing recurring problems" (Wenger 2001). By participating in the library workshops the students work on the specific skills and values in terms of accessing knowledge which characterize their research community.

Further, learning takes place mainly by doing, rather than by relying on the master/librarian's formal teaching and transmission of knowledge. Students observe, imitate and do tasks which are both self-evaluated and evaluated by other apprentices/student peers and the master/academic librarian. Members of both groups provide a student with feedback along the way.

Kvale (1997) argues for extending apprenticeship to a variety of academic settings. Library user education can be one such setting, where the overall learning goal is to facilitate the students' *intellectual* access to knowledge by improving their information literacy. As stated in the introduction, intellectual access to knowledge encompasses the following aspects:

1. Defining what knowledge needs to be accessed at a given stage of the research process;
2. Finding existing knowledge in relevant sources in an efficient and critical way; and
3. Using and disseminating the accessed knowledge in a creative and ethical way in the context of one's academic work.



Kvale (1997) argues that research apprenticeship contributes to students' acquisition of complex intellectual skills. Complex intellectual skills are integral components of the researcher identity. Information literacy education based on research apprenticeship can also contribute to students' acquisition of some complex intellectual skills, such as the ability to access existing knowledge, evaluate it critically, and use it ethically and responsibly.

## Research Apprenticeship in Practice: Information Literacy Workshops at the University of Bergen Library

This section illustrates how research apprenticeship can be applied in practice. The training of Spanish Language and Latin American Studies MA students at the University of Bergen, Norway, is used as an example.

### Integration of Information Literacy Education in the MA Program in Spanish Language and Latin American Studies

A group of students enrolled in the same MA degree program can be looked upon as novice members of a research community of practice. The new MA students at the Department of Spanish Language and Latin American Studies constitute a relatively small group, approximately 15 students. They attend an obligatory two-day introductory seminar. At the seminar, students are introduced to central theoretical, methodological and ethical questions, as well as to the department research projects. The seminar aims at helping students with their selection of topic and design of MA project.

Information literacy education is integrated in the MA program. The library is responsible for a six-hour workshop at the two-day introductory seminar. The workshop covers the following three information literacy components: advanced literature searching for thesis writing, critical evaluation of sources, and referencing and ethics. In addition to the compulsory six-hour workshop, students are offered the possibility of participating in a reference management system workshop. The general learning goal of this workshop is to enable students to keep track of the relevant knowledge they access in the research process, store and manage it.

After the introductory seminar, MA students participate in a work-in-progress seminar throughout their MA study time. MA students, staff members and the academic librarian are invited to present and discuss research issues at the work-in-progress seminar. The session facilitated by the academic librarian focuses on students' specific questions regarding access to knowledge, its management and use in their research process. The session is scheduled at a time when students' research question is focused and they are writing drafts (Table 1). At this workshop, the students already show that they have become

less *peripheral* or novice members of the community in terms of gaining access to knowledge.

### Rolling Out the Workshops: Advanced Literature Searching for Thesis Writing

Library workshops are organised into a series of hands-on sessions based on individual and group work, reflection and discussion. To help the reader visualise apprenticeship in action, this section will walk her or him through the delivery of the two-hour session on Advanced Literature Searching for Thesis Writing. The session is facilitated by an academic librarian (subject specialist) in the library computer room. At the time of attending a library workshop, students have just started or are about to start working on their research project statement. Students working on similar topics are encouraged to sit together. Prior to the workshop, students have been requested to e-mail their research question to the academic librarian so as to provide this facilitator with some indication of their research goal. This session is divided up into the following parts: debriefing, preparing for the search, searching for scientific information and closing.

#### Debriefing

After a brief presentation of the learning outcomes, the workshop kicks off with a debriefing on students' experiences with searching and accessing knowledge. The debriefing and the e-mail correspondence mentioned above usually reveal that students are at slightly different research stages. Typically some may have started searching the library catalogue and have used search engines. Some may be well acquainted with some article databases. Others may have not started searching at all. Some students have negative feelings when they attend the workshop. They express frustration because they have not succeeded in finding relevant information in the library resources. While others feel that they already have enough information to start on their MA work and are not very motivated to attend the workshop. The debriefing gives the academic librarian valuable information on the students' situation, prior knowledge, needs and expectations. This information enables the librarian to adjust the workshop plan slightly so that the workshop is better tailored to the student group.

#### Preparing for the Search

After the debriefing, students focus on preparing for their literature search. Each student writes down their topic/research question in as much detail as they can provide at that point. They give this short text to the student sitting next to them. Based on this short text, the students interview each other about

their topic/research question and project plans. Each student is then asked to provide a list of keywords with synonyms for their fellow student's research question. Based on these written activities, students discuss their own research questions and refine their keyword list in dialogue with others.

### Searching for Scientific Information

Subsequently, the librarian initiates a whole group discussion on library databases which may be relevant at initial and more advanced search stages. The discussion draws upon the students' previous knowledge of available databases. A brief presentation is made on the most relevant discipline-specific databases.

Students individually explore and search the databases using their keyword lists and combinations. The librarian fades into the background while surveying the students' searching activities and discussions. The librarian assists when students experience difficulties, although students may also turn to their peers for help. Further, the librarian tries to elicit answers and reflections from the group whenever questions of general interest arise.

### Closing

At the end of the session, students are asked to report and discuss their searching experience in small groups. More specifically, they discuss why some databases are more relevant to them than others, difficulties and frustrations, good search tips and strategies, hit lists and further searching plans.

## Developing a Researcher Identity: Referencing and Ethics

Engaging in learning activities at the library workshop contributes to the student's acquisition of a researcher identity. For instance, the session on *Referencing and Ethics* has the general goal of raising students' awareness of academic integrity issues such as the ethical use of existing knowledge available in a variety of formats. Raising the student's awareness of academic integrity in their research activity is a first step to facilitate the student's internalisation of the ethical norms and values shared by the research community.

At the Referencing and Ethics session, students are divided up into small groups and asked to discuss a number of learning scenarios. The three scenarios below can be looked upon as instances of Kvale's (1997) "narratives of the trade". These narratives are one of the various forms in which learning can take place in research apprenticeship. The discussion of learning scenarios has proven to be successful learning activities at the workshops. They effectively engage students in a lively discussion of essential ethical issues. The narratives

also allow students to relate them to similar experiences and dilemmas, and to reflect on the ethical implications of their own research plans.

In scenarios 1 and 2, students engage in a discussion of copyright restrictions and referencing of non-textual sources such as pictures and video clips.

### **Scenario 1. A picture of Vargas Llosa**

MA student Daniel is writing his thesis on Vargas Llosa. He is looking for a picture of the author, which he would like to use in his thesis as an illustration. Discuss the following questions in your group:

What printed and digital resources could he use to find such a picture?

How can he make sure that the picture chosen is used in his work ethically and in accordance with copyright regulations?

### **Scenario 2. Using video clip materials**

Juan Carlos is writing his MA thesis on Spanish football and national identity. He wants to use a snapshot of the following video clip:

<http://news.bbc.co.uk/1/hi/world/europe/7480520.stm>

Discuss the following questions:

Does he need to obtain permission to use the snapshot in his thesis? Why?

How would the source be referred to in accordance with the Modern Language Association style of reference?

In scenario 3, students reflect on research ethical questions which may arise in the fieldwork and in their later use of data. Confidentiality, possible identification of persons, privacy and consent are issues at stake in this scenario.

### **Scenario 3. Taking photographs in fieldwork**

MA student Margrethe is writing her thesis on Santería rituals in Cuba. She is doing her fieldwork and is planning to take photographs of Santería rituals to document her research.

Discuss the following questions:

What issues must she consider to be able to carry out this research activity ethically?

After the photographing session, she is considering to include the following picture in her thesis.



Figure 1: Cuban *Changó*

What issues does she need to take into account in order to be able to reproduce this picture ethically in her work?

Different student groups are assigned different tasks and asked to discuss how they would solve the situations presented in the scenarios. Subsequently, they sum up their discussion for the whole group and ask for feedback. In this way, students are exposed to a variety of situations regarding the access and use of visual sources. The scenarios have been designed by the academic librarian, based on supervisors' feedback and the experiences of previous students. The academic librarian facilitates the discussion, contributes with her expertise where needed, and ensures that key issues are covered.

## Outcomes

This section presented a model of information literacy education which aims at facilitating the student's intellectual access to knowledge. Research on academic supervision stresses the benefits of organised student support at the initial stages of the students' research process (choice of topic, defining a research question, Table 1). Students felt uncertainty and experienced difficulties when accessing and managing existing knowledge at these stages. The library workshops described above are intended as practical instances of library intervention to support students at the initial stages of their MA research process.

The library workshops are based on a sociocultural approach to learning and teaching. They offer organised student support based on the concept of *research apprenticeship*. Learning is understood as a social phenomenon. Students learn from each other through their interaction and dialogue (Lave and Wenger 1991; Samara 2006). Dialogue is an essential component in the apprenticeship model. Students construct knowledge as they experience a plurality of voices (Dysthe 2006; Dysthe, Samara and Westrheim 2006). Kuhlthau (2004) also singles out dialogue between the librarian and the student as a key component in process-oriented librarian intervention.

At the library workshops, *scaffolding* (Wood, Bruner and Ross 1976) encourages students' dialogue and enhances their learning. Through scaffolding, the academic librarian helps students acquire new knowledge and skills. New actions are shown and discussed, which the student can adapt and practise alone later on (Handal and Lauvås 2006). Scaffolding also takes place through peer learning. Students work together and provide feedback on each other's work. Students who are more advanced can be coaches for those who are at more initial research stages. Students can evaluate their information practices with both the information professional and their fellow students as they work.

The use of student's texts such as preliminary formulations of a research question, brainstorming and keyword lists can also be said to serve a dialogical function at the workshops. They are tools which engage the students and the librarian in a dialogical process (Dysthe 2006) by encouraging them to listen and to think aloud. Dysthe, Hertzberg and Hoel (2000) claim that the task of defining what knowledge is needed becomes easier after some writing has taken place. Writing should not exclusively start after searching and accessing existing knowledge. For this reason, the library workshops encourage student *writing for thinking* (Dysthe, Hertzberg and Hoel 2000) from the very beginning of the research process. Writing before reading helps students find their voice and formulate their thoughts better, without feeling overwhelmed or constrained by what the authorities in the field have said. Later on, writing while reading helps students establish a dialogue with the literature, gain understanding of it and formulate their own thoughts about it.

The library workshops are an instance of organised student support. At an emotional level, Samara's (2006) research on organised student support reveals that it helps students progress in their work as well as increasing their motivation and self confidence. The following comment, written by an MA student in her workshop evaluation, seems to corroborate this: "I now have the feeling that I may not have embarked on a hopeless project after all".

The library workshops are a learning space in the students' higher education landscape where they can work on their socialisation into the discipline. Socialisation in the academic culture is one of the overall goals of MA education (Dysthe, Samara and Westrheim 2006). In addition, the workshops give a sense of community which may diminish the feelings of isolation that were previously mentioned in the section titled *The Quest for Knowledge: Student Challenges*. The workshops can thus be said to add value to the student's experience both at an academic and emotional level. They also contribute to the student's construction of a researcher identity by doing research activities where knowledge is accessed and managed in an effective, creative and ethical way.

To conclude, the library workshops engage students in a social process which involves a wider community than just the supervisor-supervisee relationship, which has traditionally dominated the arts and humanities.

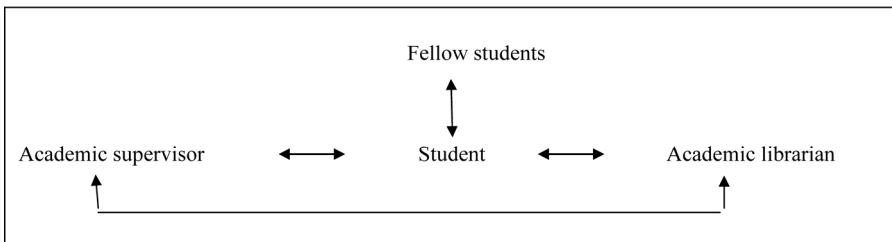


Figure 2: Parties in the supervision process as a whole (Torras and Sætre 2009)

As schematised by Torras and Sætre (2009) in Figure 2, students are not only regarded as researching individuals but also as members of a community, where they share goals, needs and challenges with their fellow students. The academic librarian and fellow students become active partners who contribute to the student's research process alongside the supervisor.

## Constructive Alignment in the Design of the Workshops

Biggs' (2003) *constructive alignment* is a central concept in current higher education curriculum design. It also underlies the design of the workshops presented above. Constructive alignment is based on the assumption that students

construct meaning through the learning activities they engage in. This is in line with the sociocultural approach to learning and teaching on which the workshops are based.

In constructive alignment, the educator's task is to create learning environments that encourages and supports the intellectual activity of students. This requires that the intended learning outcomes are consistent with the designed assessment tasks and learning activities. Intended learning outcomes are defined as what students are expected to know or be able to do after the learning experience (e.g. a workshop). In short, the educator needs to define the intended learning outcomes and select learning and teaching activities that will help students attain the outcomes. The educator further needs to select a type of assessment that will allow them to establish the student's outcomes. From this perspective, students are expected to take responsibility for their learning. For this reason, it is important to make students aware of the intended learning outcomes.

In order to embed the library workshops into the MA program, the academic librarian needs to operate in alignment at two different levels. This double alignment is illustrated by Figure 3.

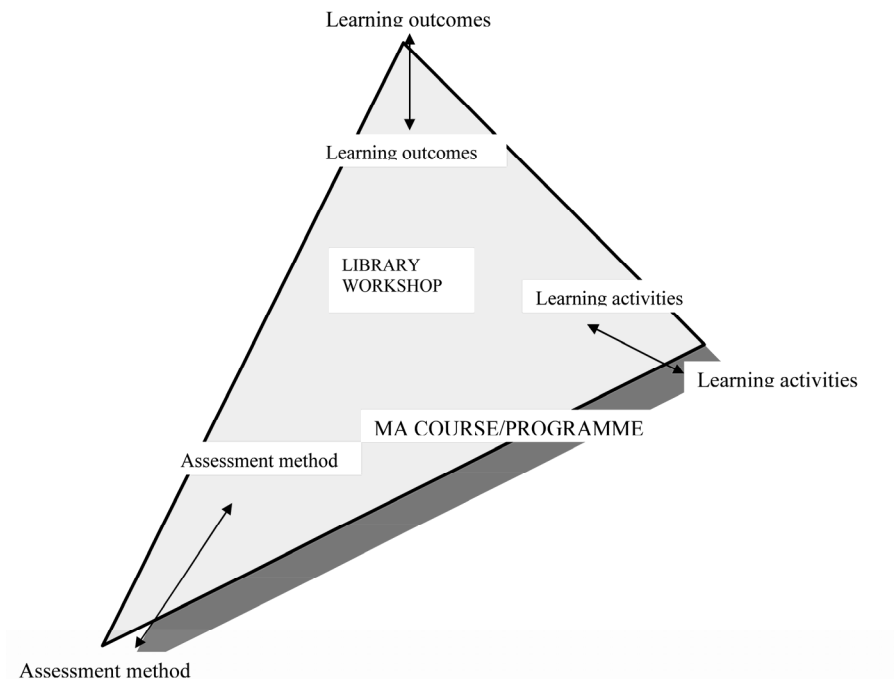


Figure 3: Alignment between library workshop design and MA course/program design



At one level, academic librarians must aim at alignment between the intended learning outcomes, activities and assessment of a library workshop. At another level, they need to ensure that the workshop outcomes, activities and assessment are consistent with the outcomes, activities and assessment of the MA course or program in which the library workshop is embedded. A condition to achieve this double alignment is close dialogue and collaboration between the academic librarian and the academic staff responsible for the MA course or program. A common understanding of learning outcomes, activities and assessment for both the MA course/program and the library workshop is necessary. This will ensure teaching activity which will cause the students to engage with learning and which will help them achieve the intended learning outcomes.

Misalignment will easily result in unsuccessful library workshops of little relevance, with low attendance and little student motivation and engagement. A library workshop aimed at enabling students to access existing knowledge in their field of study in an independent and effective way serves as an example. The workshop is based on database searching activities. A mismatch is highly likely to occur, if the library workshop is embedded in a subject based on a transmission model of teaching. From this teaching perspective, students are, for instance, provided with a reading list, readily available in a reading pack. They are not expected to look for any more literature or to write any assignment. Assessment is entirely based on a traditional final exam mark. In this situation, students can hardly be expected to engage in literature searching activities. Neither the subject learning outcomes nor assignment requirements require them to do so.

By contrast, learning activities at the library workshop just mentioned will be better aligned with the learning activities of the MA course/program, if for instance, students are asked to hand in an annotated bibliography as part of their assessment. The library workshop searching activities will then be more relevant to the subject learning activities, outcomes and assessment.

There is considerable variation in the extent to which the academic librarian is involved in student assessment. In the case of the library workshop examples described in this chapter, student assessment is entirely the academic staff's responsibility. Likewise, there is also considerable variation regarding how the intended learning outcomes of the library course are assessed in relation to the subject learning outcomes. A discussion of aligned assessment is beyond the scope of this chapter. The reader is referred to Mackey and Jacobson (2010) for inspiring examples of collaborative information literacy assessment.

The section "The Quest for Knowledge: Student Challenges" discusses an example of how to align the learning outcomes of the library workshop on Advance Literature Searching with those of the SPLA304 course in which this workshop was embedded. Likewise, an attempt has been made to align the

workshop learning activities described in *Advanced Literature Searching for Thesis Writing and Referencing and Ethics* with the learning outcomes established for the workshops and the MA course, such as the student's ability to write a research project statement. The activities are relevant to the students' own literature review and to ethical issues which they need to deal with in their research project statement.

Achieving alignment is extremely challenging, and even more so for the academic librarian, who needs to operate in alignment at two levels. However, aiming to attain constructive alignment contributes to better student learning (Biggs 2003), on the one hand, and on the other, to the professionalization of the pedagogical role of the librarian. Constructive alignment requires academic librarians to be more professional and autonomous educators. They need to reflect on their practice critically by regularly revisiting course plan and roll out.

## Conclusion

This chapter has presented a model of information literacy education which aims at facilitating the MA student's intellectual access to scientific knowledge. Intellectual access to knowledge goes beyond physical/electronic access to sources of knowledge. It also incorporates students' interpretation and use of existing knowledge in their research process.

In order to provide appropriate librarian intervention, it is necessary to be acquainted with the MA research process. The literature on academic writing, academic supervision and student information searching behaviour document specific intellectual and emotional challenges related to the access to and management of knowledge. These challenges need to be attended to in the design of information literacy education. In addition, the librarian needs to be aware of the qualifications that are expected from students within the educational framework where they study. The learning outcomes of information literacy education should contribute to the attainment of some of those qualifications. In this respect, the importance of *constructive alignment* (Biggs 2003) in designing information literacy education has been highlighted. The learning outcomes, activities and assessment of a library course or workshop should be aligned. Likewise they should also be aligned with the learning outcomes, activities and assessment of the MA course or program where the library teaching is embedded.

Kvale's (1997) educational model of *research apprenticeship* has been presented as a practical way of organising embedded information literacy education. In the library workshop examples discussed, access to knowledge becomes a social practice. By engaging in information literacy activities relevant to their MA work and the research stage they are at, students learn from interacting and establishing a dialogue with each other and the librarian. The li-

brary workshops constitute one of the arenas where MA students participate in their research community of practice. Thus, these workshops contribute to the students' socialisation in the discipline and their construction of a researcher identity.

To conclude, applying research apprenticeship to information literacy education involves a number of challenges. They are briefly discussed in what follows, based on the lessons learned from the workshops presented in this chapter. As previously discussed, one of the challenges was achieving constructive alignment. Close collaboration with faculty is a condition *sine qua non* in order to attain constructive alignment in the design of embedded information literacy education. Student assessment has been mentioned as one specific aspect where the librarian's legitimacy as a stakeholder cannot be taken for granted.

Another challenge for the librarian in the planning and rolling out the workshops is student diversity. Students find themselves at different research stages when they come to the workshops. In addition, they come from different backgrounds. There may be both international and home students, young and more mature students. Some may have participated in organised information literacy education previously, others may not have. These diversity factors result in varying degree of skills, attitudes, values, knowledge, motivation and expectations.

Undoubtedly, diversity factors are difficult to determine and cater for when planning and rolling out library workshops. At the same time, awareness of diversity and strategies to attend to it in the classroom are quite decisive in order to succeed in engaging students in learning activities. The bibliographic paradigm which used to dominate information literacy education at the University of Bergen Library did not consider diversity as a factor during the planning or rolling out of teaching situations. 'One size fits all' and 'just in case' teaching was heavily teacher- and resource-centred. Research apprenticeship provides a better framework in the sense that it enables the librarian to unveil diversity to a certain extent. Although the unveiled diversity still needs to be addressed at the workshop, research apprenticeship does seem to provide a better framework to achieve contextualised information literacy education.

Finally, librarian intervention and dialogue between the librarian and the students over time are also challenging. The workshop sessions chosen in this chapter exemplify librarian intervention at the initial phases of the students' MA research process. Choice of topic and defining a research question are phases in which students can benefit intellectually and emotionally from organised student group support. Nevertheless, students' information needs, choice of appropriate strategies and relevance of knowledge sources will vary over time as their research question gradually becomes more focussed (Kuhlthau 2004) and they progress through the MA research phases. For this reason, librarian intervention cannot be limited to one-shot instruction. The

question that needs to be addressed is what kind of librarian intervention should be provided in later phases of the student's research process. This is an issue currently under discussion in the case of the workshops discussed in this chapter. Torras and Sætre (2009) also single out this challenge in their discussion of the academic librarian as a process-oriented secondary supervisor. On the other hand, more frequent contact with students is also challenging because it is likely to result in a larger working load for the librarian and thus in the need for more teaching resources.

The challenges are however outweighed by the student benefits which have been described above. In addition, applying research apprenticeship to information literacy education provides a practical example of how the use of research findings and educational theory can benefit academic librarians' teaching practice. Their professional identity as educators is strengthened, and their facilitating role better legitimised in the students' complex process of accessing knowledge.

## Credits

Table 1: Handal and Lauvås, 2006, p. 67. The author's translation.

Figure 1: Solveig Kavli

Figure 2: (Torras and Sætre 2009, p. 84).

## References

- Bakhtin, M. M. *The Dialogic Imagination: Four Essays*. Holquist, M., ed. Austin: U of Texas P, 1981.
- . *Speech Genres and Other Late Essays*. Emerson, C. and Holquist, Michael, eds. Austin: U of Texas P, 1986.
- Biggs, J. *Teaching for Quality Learning at University: What the Student Does*. Buckingham: SRHE and Open UP, 2003.
- Bologna Working Group on Qualifications Framework. *A Framework for Qualifications of the European Higher Education Area*. 2005.  
www.bologna-bergen2005.no/Docs/00.../050218\_QF\_EHEA.pdf [Mar. 2011].
- Buckland, M. *Information and Information Systems*. New York: Greenwood Press, 1991.
- Cavallin, C. "Gruppebasert veiledning med én veileder i masterstudier." Dysthe, O. and Samara, A., eds. *Forskningsveiledning på master- og doktorgradsnivå*. Oslo: Abstrakt Forlag, 2006.
- Dewey, J. *How We Think: A Restatement of the Relation of Reflective Thinking to the Educative Process*. Boston: D.C. Heath and Company, 1933.
- Dysthe, O. "Rettleiaren som lærar, partnar eller meister?" Dysthe, O. and Samara, A., eds. *Forskningsveiledning på master- og doktorgradsnivå*. Oslo: Abstrakt Forlag, 2006.
- Dysthe, O., Hertzberg, F. and Hoel, T.L. *Skrive for å lære. Skrivning i høyere utdanning*. Oslo: Abstrakt Forlag, 2000.

- Dysthe, O., Samara, A. and Westrheim, K. "En treleddet veiledningsmodell i masterstudiet." Dysthe, O. and Samara, A., eds. *Forskningsveiledning på master- og doktorgradsnivå*. Oslo: Abstrakt Forlag, 2006.
- Engelsen, B. U. *Kan øring planlegges? Arbeid med læreplaner – Hva, hvordan, hvorfor?* Oslo: Gyldendal Norsk Forlag, 2006.
- Handal, G. and Lauvås, P. *Forskningsveilederen*. Oslo: Cappelen, 2006.
- Kamler, B. and Thomson, P. *Helping Doctoral Students Write: Pedagogies for Supervision*. London: Routledge, 2006.
- Kuhlthau, C. C. *Seeking Meaning: A Process Approach to Library and Information Services*. 2nd ed. Westport: Libraries Unlimited, 2004.
- Kunnskapsdepartament. *Kvalifikasjonsrammeverket for høyere utdanning*. 2009. [www.regjeringen.no/nb/dep/kd/tema/hoyere\\_utdanning/nasjonalt-kvalifikasjonsrammeverk.html?id=564809](http://www.regjeringen.no/nb/dep/kd/tema/hoyere_utdanning/nasjonalt-kvalifikasjonsrammeverk.html?id=564809) [Mar. 2011].
- Kvale, S. "Research apprenticeship." *Nordisk Pedagogik*, 17.3 (1997): 186-194.
- Lave, J. and Wenger, E. *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge UP, 1991.
- Mackey, T. P. and Jacobson, T. E., eds. *Collaborative Information Literacy Assessments: Strategies for Evaluating Teaching and Learning*. London: Facet Publishing, 2010.
- Samara, A. "Skivegrupper som inngang til PhD-studiet. En kasusstudie." Dysthe, O. and Samara, A., eds. *Forskningsveiledning på master- og doktorgradsnivå*. Oslo: Abstrakt Forlag, 2006.
- Torras, M. C. and Sætre, T. P. *Information Literacy Education: A Process Approach. Professionalising the Pedagogical Role of Academic Libraries*. Oxford: Chandos, 2009.
- Vygotskij, L. S. *Thought and Language*. Cambridge, Mass.: MIT P, 1967.
- . *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard UP, 1978.
- Wenger, E. "Communities of practice." Smelser, N. J. and Baltes, P. B., eds. *International Encyclopaedia of the Social and Behavioural Sciences*. Amsterdam: Elsevier, 2001.
- Wood, D., Bruner, J. and Ross, G. "The role of tutoring in problem-solving." *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 17.2 (1976): 89-100.

## Part Three – Libraries as Space and Place in A2K



# The Discursive Construction of the Academic Library as Learning Place in A2K

Catherine Closet-Crane

*School of Library and Information Management, Emporia State University  
Emporia, Kansas, USA*

The academic library has become a hot commodity in selling the university to prospective students across North America (Cain and Reynolds 2006). There has also been a shift from a teacher-centered to a student-centered technology-enabled approach to undergraduate college education. Consequently, the academic library has now a role to play in the American university that goes beyond providing access to information; it has the obligation to facilitate undergraduate learning and facilitate knowledge creation. The need to incorporate components of the increasingly complex information infrastructure of the knowledge society and its A2K philosophy has accompanied the rise in academic library construction and renovation projects. During the construction boom of the last fifteen years, information and learning commons have become important new features of academic library design. Meanwhile, there has emerged the library-as-place movement. Although early on there was more written on the public library as place, a discursive stream on the value of the “academic library as space and place” has emerged in the professional literature of the last decade (Baker 2000; Bennett 2003, 2005, 2006; 2007a, 2007b, 2008; Shill and Tonner 2003, 2004).

The study presented in this chapter was done as part of a doctoral dissertation (Closet-Crane, 2009). The general topic of this dissertation was prompted by anecdotal reports by librarians’ of challenges encountered with the academic library design process. The author has a multidisciplinary background in architecture and library and information management which led her to wonder how academic librarians have discussed library design and whether they have considered the role architecture and environmental design play in supporting learning behaviors and the acquisition, utilization and creation of knowledge. A simple question gave direction to the research for this dissertation. What is going on in professional discussions of library planning and design that attempt to (re)-define the academic library as space and place in the 21<sup>st</sup> century? (Closet-Crane 2009)

By examining the social construction of a new brand of academic library and weaknesses perceived in the discourse on the information and learning



commons, this chapter shows that the space management approach taken to discuss the design of library commons fails to consider the physical and emotional components of architecture. It stresses the need for future inquiry into the role library architecture and environmental design can play in library users' sense of place and in facilitating learning and access to knowledge.

## Literature Review, 1995-2009

### Library as place

Within the LIS discourse of the last fifteen years, there exist themes that describe various aspects of the library as space and place. They include accessibility to information resources and information and communication technologies (Beagle 1999, 2002, 2009), symbolism (Jackson and Hahn 2008), learning place (Bennett 2003, 2005, 2006, 2008), public place (Leckie and Hopkins 2002; Leckie 2004), and third place (Fang 2008).

The term *library as place* has been liberally used as if its meaning were transparent. In fact, there is a range of perspectives on the library as place (Buschman and Leckie 2007; Council on Library and Information Resource 2005). The term has often been used to differentiate the brick-and-mortar library from the library as institutional entity or to place it in opposition to the digital alter ego of the library (Bjarrum and Cranfield 2004; Dowlin 2004; Foote 2004; Templeton 2008). At other times, concerns for space planning, facilities management, and the other aspects of the physical plant have been implicated (Beagle 1999; Kratz 2003; Thomas 2000).

The more theoretical writings have conceived the library as place with regard to the purpose the library fulfills, the function it performs for a community of users, or the place the library occupies in its community and in society (Alstad and Curry 2003; Bennett 2006; Eigenbrodt 2008; Waxman et al. 2007). In the field of LIS research, the pioneering work of Gloria Leckie and her collaborators is noteworthy for having introduced the concept of *sense of place* in the scholarly discourse on libraries (Leckie and Hopkins 2002; Given and Leckie 2003; and Leckie 2004). This concept relates to the affective bond people develop with a place through their experience of space and place in that setting (Yi-Fu Tuan, cited in Buschman and Leckie 2007).

### Academic libraries

The point of departure for understanding the evolution of the discourse on academic libraries is to be found in *Academic Libraries: Their Rationale and Role in American Higher Education* (McCabe and Person 1995). Within the last decade, three reports by the Council on Library and Information Resources

<b>LIS Journals</b>	Number of articles
<b><i>ACRL Publications</i></b>	<b>7</b>
<i>Advances in Library Administration and Organization</i>	1
<i>Annals of Nagoya University, Library Studies</i>	1
<i>Colorado Libraries</i>	1
<i>Electronic Journal of Academic and Special Librarianship</i>	1
<i>Journal of Library Administration</i>	1
<i>Journal of the Medical Library Association</i>	1
<i>Florida Libraries</i>	1
<i>Library Administration and Management</i>	1
<i>Library Hi Tech</i>	2
<i>Library Issues</i>	1
<i>Mississippi Libraries</i>	2
<b><i>New library World</i></b>	<b>5</b>
<i>Portal: Libraries and the Academy</i>	3
<i>Reference Services Review</i>	2
<b><i>Research Strategies</i></b>	<b>7</b>
<i>The Bottom Line: Managing Library Finances</i>	1
<b><i>The Journal of Academic Librarianship</i></b>	<b>20</b>
<b>Non LIS Journals</b>	
<i>Educause Review</i>	1
<i>Planning for Higher Education</i>	1
<i>The Chronicle of Higher Education</i>	1

Table 1: Journals from which articles were selected for the literature review on academic libraries as space and place

(CLIR 2002, 2003, 2005) have provided an updated platform for envisioning the roles that the research or academic library can play in the digital age namely its future role as a place and space that supports learning (CLIR 2003). More recently, there has been a surge of monographs on information and learning commons: a handbook (Beagle 2006), cases studies (Bailey and Tierney 2008), and a field guide (Forrest and Halbert 2009).

From the professional literature on academic librarianship between 1995 and 2009, 64 relevant articles and essays that discuss the academic library in terms of theoretical, conceptual and programmatic issues as well as planning and design were selected for review. Journal articles came predominantly from four periodical sources: *Journal of Academic Librarianship (JAL)* (20 articles), *New Library World* (5 articles), *Research Strategies* (7 articles) and ACRL publications (7 articles). The other articles were culled from 14 LIS journals and three non-LIS publications (see Table 1).

By the frequency of their publications and of references to their work, Beagle (1999, 2002, 2004, 2009) and Bennett (2005, 2006, 2007a, 2007b, 2008) emerge as prominent authorial figures in the discourse of academic library planning. There are two broad perspectives that dominate the literature reviewed: the *library as learning space* and the *library as information center for the digital age*; they tend to overlap with the themes of the *learning commons* and the *information commons*. Table 2 provides a listing of references for articles according to the perspective they present.

<i>Article Theme</i>	<i>References</i>
<i>Library as learning space</i>	Baker (2000), Bennett (2006, 2007a, 2007b, 2008), Forrest & Hinchliffe (2005), O'Connor & Bennett (2005), Owusu-Ansah (2001), Pelster (2000), Revill (1997), Seaman (2006), Simmons, Young, & Gibson (2000), Snavelly (2000), Spencer (2007), and Van Pelt (2000).
<i>Library as digital age information center</i>	Bailey & Tierney (2002); Beagle (1999), Cowgill, Beam, & Wess (2000), Crockett, McDaniel, & Remy (2002), Dewey (2002), Forrest & Hinchliffe (2005), Halbert (1999), Kratz (2003), MacWhinnie (2003), Malenfant (2005), Samson & Oelz (2005), Spencer (2006), Tramdack (1999).

Table 2: Periodical articles and essays developing the dominant themes

## Philosophical and Methodological Frameworks

A critical realist constructionist perspective was adopted as the philosophical framework for critical discourse analysis (CDA). A critical realist constructionist approach combines a critical realist ontological stand that is influenced by Bhaskar's critical realist philosophy (Archer et al. 1998) and a moderate social-constructionist epistemology (Nightingale and Cromby 2002). Leading LIS researchers Budd (2006), Frohmann (1992, 1994) and Talja (1999, 2004) have already demonstrated the advantages of using discourse analysis in LIS research. As a theoretical and methodological domain, discourse analysis encompasses a variety of approaches that focus on the study of language use as

well as the use of other forms of semiosis as elements of social processes (Fairclough 2001a).

The methodological framework used for the research design was inspired by the critical realist approach to CDA developed by British analyst Norman Fairclough (Fairclough, 2001b, 2001c, 2003). Derived from Foucauldian discourse analysis, Fairclough's version of CDA is textually oriented and concentrates on the social character of texts (2001b; 2003). A Marxist approach to CDA was consciously avoided with its *a priori* focus on power relationships in society in order to let the data talk without the filter of an ideological lens and to enhance a sense of interpretational possibilities. Taking cues from Talja (1999), the identification of interpretative repertoires and the institutional functions and effects of the narratives they constitute became the focus.

The methodological approach for practicing CDA that guided this analytical work is outlined by Fairclough in his five stage CDA process (2001b; 2003). The researcher's role was to:

1. Identify a problem and select a body of representative texts to analyze (stage 1);
2. Map relationships between discourse and social practices (stage 2);
3. Interpret critically these relationships (stage 3);
4. Suggest directions for action or for initiating change in the real-world (stage 4); and to
5. "Reflect critically on the analysis...[and] where s/he is coming from" (Fairclough\_2003) by being sensitive to "what resources [she or he is] relying upon to do analysis" (Fairclough 2001c) and her or his own positioning in relationship to the object under study (stage 5).

This analytical process is not linear; it is fundamentally recursive. A great deal of time and effort are spent reading and re-reading texts at every stage of the analysis and the researcher goes back and forth between different texts usually working on different stages of the analysis at the same time (see figure 1 for a diagram illustrating the methodological process).

## Research Design

In discourse analytical research, the primary data are texts; they are qualitatively analyzed by the researcher whose role is to provide a critical interpretation. The sample of texts selected for study is called a corpus. The size of the corpus is in general relatively small because doing discourse analysis is labor intensive and time consuming; in fact, some discourse analysts have successfully focused their studies on as little as one single text (Jørgensen and Phillips 2002; Potter and Wetherell 1987). Texts constituting the corpus can be the

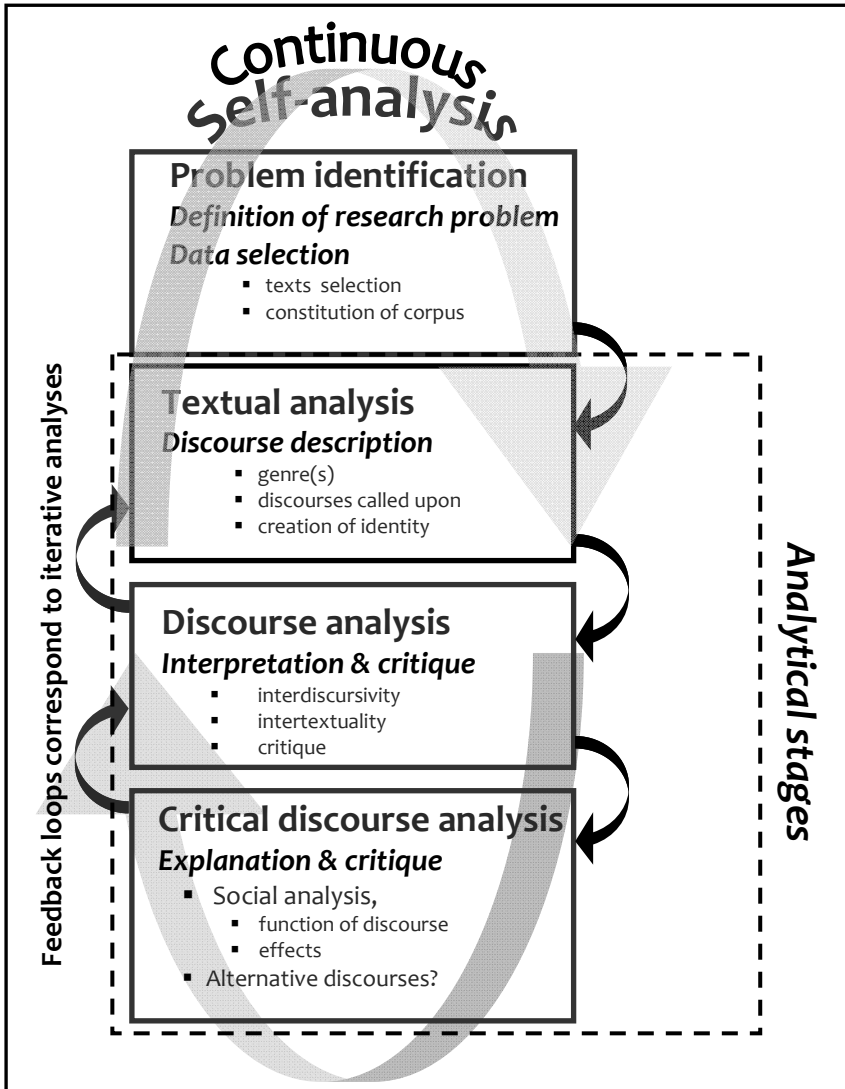


Figure 1: Fairclough’s Methodological Process for Critical Discourse Analysis

production of a single author, a group of authors, or an institutional entity. They can be collected from one single source (one journal for example) or from a variety of sources (journals, websites, institutional reports or media). In keeping with the theoretical principles of critical discourse analysis, the primary criteria established for the consideration of a text to be included in the corpus is that it should have “an obvious social or institutional significance” (Taylor 2001) and that it should present interesting discursive features and mechanisms.

## Corpus selection

In the preliminary analysis of the literature on academic library planning and design three discursive threads – the information commons, the learning commons, and the library designed for learning – were found to dominate discussions of academic library planning and design since 1995. To constitute a corpus for analysis, texts from the LIS literature published between 1995 and 2009 that take up one or more of these dominant topics were identified. The *Library Literature & Information Full Text* database was searched using the subject headings and keywords “College & University Libraries”, “Architecture and Building”, “Learning Commons”, and “Information Commons”. A body of more than 90 documents emerged which included some of those reviewed earlier in the research process. From these documents, whole monographs and book length works were weeded out because these texts are better suited for content analysis research or discourse analysis focused on a single work. A smaller sample of essays and articles was then extracted by evaluating their potential for CDA (for references to all the texts that were reviewed during the corpus selection process, the interested reader is invited to refer to Closet-Crane 2009). A close reading allowed the weeding out of texts that did not discuss planning and design of the library as learning space and place and those that reported on a particular library building project. A reduced sample of 31 documents was thus constituted.

This still represented an unmanageable number of documents for exploratory discourse analytical research. As a result the researcher, adopting the role of discourse analyst, extracted from the list the most important texts in an attempt to describe and explicate discourse formation about the “academic library as place”. This analysis was done from the perspective of a LIS scholar and an architect seeking to understand the nature of the academic library as a particular type of place from an environmental design perspective. Focusing on texts that discussed the information commons, the learning commons, or the library designed for learning, 12 texts were selected for potential study: Bailey and Tierney (2002), Beagle (1999, 2004), Bennett (2003, 2005, 2006, 2007a, 2008), Boone (2003), Halbert (1999), Spencer (2006), and Tramdack (1999). Beagle and Bennett had emerged as dominant authorial figures in the author’s review of the literature (Closet-Crane 2009); therefore, their texts were automatically included. The texts by Halbert (1999) and Tramdack (1999) were included because they were published together in one issue of the *JAL* as answers to an article by Beagle (1999). Also, Bailey and Tierney (2002) judged that “in 1999, Donald Beagle, together with commentators Martin Halbert and Philip Tramdack, presented substantive theoretical and applied roadmaps for an integrated Information Commons in an academic environment.” The texts by Bailey and Tierney (2002), Boone (2003), and Spencer (2006) were selected on the basis of a preliminary content analysis and for po

Author and date, Text title	Articles' provenance		Others
	<i>The Journal of Academic Librarianship (JAL)</i>	<i>Other journals</i>	Report, Conference presentation
<b>Bailey &amp; Tierney (2002).</b> Information commons redux: concept, evolution, and transcending the tragedy of the commons. <i>JAL</i> , 28(5).	X		
<b>Beagle (1999).</b> Conceptualizing an Information Commons. <i>JAL</i> , 25(2).	X		
<b>Beagle (2004).</b> From Information to Learning Commons.			X presentation
<b>Beagle (2009).</b> The Learning Commons in Historical Context. <i>Annals of Nagoya University</i> , 7.		X	
<b>Bennett (2003).</b> <i>Libraries Designed for Learning</i> . CLIR report Pub. 122, pp. 3-20.			X report
<b>Bennett (2006).</b> The choice for learning. <i>JAL</i> , 32(1).	X		
<b>Bennett (2008).</b> The Information or Learning Commons: Which will we have? <i>JAL</i> , 34(3).	X		
<b>Boone (2003).</b> Monastery to market place: A paradigm shift. <i>Library Hi Tech</i> , 17.		X	
<b>Halbert (1999).</b> Lessons from the Information Commons Frontier. <i>JAL</i> , 25(2).	X		
<b>Spencer (2006).</b> Evolving the Information Commons. <i>Reference Services Review</i> , 34(2).		X	
<b>Tramdack (1999).</b> Reaction to Beagle. <i>JAL</i> , 25(2).	X		

Table 3: Bibliographic information

tential intertextual and interdiscursive relationships existing with other selected texts they cited. Finally, one more text discussing the evolution of the academic library as learning commons was added for analysis late in the process

when its publication was brought to the researcher's attention by its author (Beagle 2009). Table 3 summarizes bibliographical information about these texts.

In order to assess the importance of these 12 texts, citation analyses were performed using Social Science Search and Google Scholar for comparison (results of citations analyses are presented in Table 4). Since the dissertation research has been completed, the *Journal of Library Administration* (2010, vol. 50) published an entire issue on the topic of information commons lending credibility to the selection of a corpus of texts by Beagle, Bennett, Halbert, and Tramdack (see the introduction by Seal 2010).

Text	Times Cited	
	Soc. Sci. Search	Google Scholar
Bailey & Tierney, 2002	8	56*
Beagle, 1999	19	103
Beagle, 2004	no data	11
Bennett, 2003	12	26
Bennett, 2005	2	10
Bennett, 2006	2	6
Bennett, 2007a	1	2
Bennett, 2008	no data	1
Boone, 2003	no data	10
Halbert, 1999	6	19
Spencer, 2006	no data	9
Tramdack, 1999	3	5

Table 4: Citation analyses

\* Note: Interestingly, the links to 27 of the works citing Bailey & Tierney are in the Chinese language.

### Analytical process

Fairclough's guidelines for the CDA process were used to perform textual and discourse analyses on all the texts in the corpus. First, each text was identified for its origin and style, the participants in discursive activity (authors, audiences, participants called-in or referred to) and the discursive themes presented. Then, the selected items were examined to discern the perspective or viewpoint from



which main themes were represented, the discourses drawn upon and how the characteristics of each text were worked together (intertextuality, interdiscursivity and how a text does valuing, representing, relating, and identifying work). It is beyond the scope of this chapter to provide detailed documentation of the analytical work undertaken; the reader interested in seeing samples of textual analysis is referred to Closet-Crane (2009).

After analyzing all the texts in the corpus, interactions between texts were examined and a possible interpretation of discursive activity was drawn, the aim of which was to clarify how objects of discourse were constituted and how interpretative repertoires (different ways of viewing the object of discourse) were woven together to construct a vision of the academic library as place. Secondary data created through textual and discourse analyses was then submitted to the last stage of the analytical process, critical analysis.

To construct the analytical toolbox for performing critical discourse analysis, analytical approaches and lines of questioning borrowed from Jørgensen and Phillips (2002), Locke (2004), Phillips and Hardy (2002), Van Leeuwen (2008) and Wood and Kroger (2000) were combined. The critical analytical and interpretive work undertaken was also inspired by the approach of leading discourse analysis researchers from LIS (Frohmann 1992, 1994; Budd 2006; Talja 1999, 2004). The researcher's training and experiences in librarianship and architecture were also used as a means of examining the tensions that arise in the context of academic library practice from the discourse constructed in the corpus analyzed. The next section represents the interpretation of the results of the discourse analysis.

## Limitations of the Study

The limitations of the study arise from using critical discourse analysis as a research method. Doing discourse analysis is labor intensive and time consuming; this restricts the amount of data that it is manageable to analyze. Respected discourse analysts Potter and Wetherell (1987), however, consider that "it is not the case that a larger sample necessarily indicates a more painstaking or worthwhile piece of research". The validity of this study needs to be evaluated on the strength of the interpretative argument, its believability, and its coherence with the data and its context.

Another limitation resides in the types of texts chosen as data. Other types of texts could have been used such as transcripts of interviews or focus groups with librarians and library directors/managers, or internal documents produced during an academic library design project. Such documents will be used in the future to extract textual data that can be analyzed for comparison with the present interpretative critical analysis. The constitution of a corpus for analysis tends to be value laden. Theoretical and experience-based knowledge of archi-

tectural design, libraries and librarianship of the researcher may have influenced, at cognitive and emotional levels, how texts were selected to be used for data.

## Validity, Reliability, and Generalizability of Critical Discourse Analytic Work

Questions of validity, reliability and generalizability have plagued the domain of qualitative research. As an interpretive method discourse analysis (DA) has been particularly vulnerable to critics' attacks. However, the domain of discourse analysis research has evolved into a field in its own right, and DA scholars have developed accepted definitions of validity, reliability, and generalizability that are consistent with "the nature of the beast". In this regard Talja's (1999) article "Analyzing qualitative interview data: The discourse analytic method" is a particularly useful reference work for LIS researchers.

In CDA practice, the validity of a study can be evaluated on the sole strength of the interpretative argument – its believability, and its coherence with the data and its context. Wood and Kroger (2000) propose that validity criteria can be met by achieving the alternative criteria of soundness (by means of orderliness and demonstration), coherence and plausibility. Coherence is achieved by formulating claims clearly and unambiguously. Plausibility answers to the questions: Are the claims acceptable? Are explanations persuasive? Do they make sense in relation to other knowledge?

Reliability depends on the verifiability of the researcher's interpretations, which must be based solely on research data. Wood and Kroger (2000) suggest that alternative criteria of trustworthiness apply to discourse analytic work rather than reliability criteria; they propose that orderliness and documentation support trustworthiness. Orderliness refers to the ways in which all aspects of research are conducted, recorded and reported (2000). Documentation entails describing clearly all the facets of research, including how the researcher goes about doing discourse analysis and should contribute to the reader's trust in the analysis. Together with providing data excerpts, documenting ensures the researcher answers to the requirement of accountability (2000). One way to document the research process is to take notes and use journaling to constitute an "audit trail" that allows an external auditor to examine processes of data collection, analysis and interpretation (2000). During the discourse analytical phase of this research, notes were kept by the researcher on the process of selecting and analyzing texts; Drs. Nancy P. Thomas, Gloria Leckie, Lynne Cooper Chase, and Rebecca Miller, advisors on the dissertation committee for the thesis on which this chapter is based, acted as auditors.

In qualitative research and particularly in DA, transferability (Heracleous 2006) and fruitfulness (Wood and Kroger 2000) are considered substitutes for

generalizability. Heracleous describes transferability as a type of generalization that he calls “moderatum generalization”, where the aspects of a situation are exemplars of broader sets of features. Conclusions and interpretations should be transferable and should demonstrate fruitfulness, that is, their potential for making sense of new discourses and for generating fresh explanations (Wood and Kroger 2000).

## Findings, Interpretation and Critical Analysis

### Findings

Three metaphors play a major role in the constitution of interpretative repertoires. They are “the academic library as information commons” (IC), “the academic library as learning commons” (LC), and “the academic library as space designed for learning” (LDL). Used as repertoire categories, these metaphors stand for new ways of thinking about library planning and design. Four secondary themes were found to have ancillary functions in discourse construction: the traditional library; change; the digital age environment; and, library space. These secondary themes help weave together the interpretative repertoires that construct visions of the academic library as place from complementary perspectives into a single order of discourse on the academic library as learning place (or more simply ALLP discourse). Table 5 summarizes the distribution of interpretative repertoires and secondary themes in the corpus.

Text	Interpretative Repertoires			Secondary Themes			
	<i>In-formation Commons</i>	<i>Learning Commons</i>	<i>Lib. designed for learning</i>	<i>Traditional library</i>	<i>Digital-age environment</i>	<i>Change</i>	<i>Library space</i>
Beagle, 1999	X			X	X	X	
Beagle, 20004	X	X				X	
Beagle, 2009	X	X				X	X
Bennett, 2003			X			X	
Bennett, 2006			X		X	X	X
Bennett, 2008	X	X					X
Halbert, 1999	X				X		
Tramdack, 1999	X				X		

Table 5: Distribution of interpretative repertoires and secondary themes

## Construction of interpretative repertoires

The academic library as information commons (IC) interpretative repertoire is elaborated primarily in a group of five texts by Beagle (1999, 2004, 2009), Halbert (1999) and Tramdack (1999) which have been seminal in defining the concept of information commons for the profession. Three articles written by Beagle (1999), Halbert (1999) and Tramdack (1999) were published together in the same issue of JAL. The articles by Halbert (1999) and Tramdack (1999) were presented in JAL as responses to Beagle's ideas; this dialogical relationship between the three texts establishes them as a collective point of departure for the constitution of the IC repertoire. In fact this interpretation is coherent with the argument made by other participants in the discourse on the academic library planning and design that these three articles acted as roadmaps for the development of information commons in academic library environments (Bailey and Tierney 2002).

Linked together in a discursive continuum, the texts by Beagle (1999, 2004, and 2009) are another interesting unit of analysis. In them, Beagle develops an explanatory narrative that describes the development of the information commons as a conceptual model for library service and as a new vision of library space. Among them, the most often cited in the LIS literature on information commons is Beagle's 1999 article which emerges as a seminal reference. The capitalization of the term *Information Commons* actively constructs the information commons as an object of discourse by naming not only the concept elaborated by Beagle but a new category of library. Described in its embryonic form as a "computer lab on the first floor of the library" (Beagle 2004), the Information Commons is constructed as a physical manifestation of a concept of service (Beagle 1999, 2009).

In his discussion of the information commons, by not capitalizing the term *information commons*, Bennett (2008) reduces the constructive power of Beagle's definition. Bennett also minimizes the potential for place-making associated with the information commons concept by describing the information commons as nothing more than "a cluster of network access points and associated IT tools". The name "information commons" introduced in the discourse on academic libraries thus comes to represent a collection of physical objects (Bennett 2008), a place in the library (Beagle 2004; Tramdack, 1999), or a concept of service (Beagle 1999, 2009; Halbert 1999; Tramdack 1999). In the LIS literature, the information commons as a concept of service (Bailey and Tierney 2002; Cowgill, Beam and Wess 2001; Crockett, Mc Daniel and Remy 2002; Samson and Oelz 2005; Spencer 2006) has received more attention than the information commons as a space or place in the library (Dewey 2002; MacWhinnie 2003; Malenfant 2005); the latter is generally discussed in case studies of academic library overhaul that involved building construction or renovation, administrative reorganization, and service improvement.

Delivered in installments, Beagle's narrative culminates in the construction of the learning commons as the ultimate transformation of the academic library. The verbs *revitalize*, *reinvent*, and *reposition* (Beagle 2009) used to describe the desired impact of the learning commons model on traditional libraries have the effect of anthropomorphizing the academic library. As an institution it is thus implicitly constructed as sickly and in need of a regenerative treatment of some kind. The prescription offered for restoring its health is for it to embrace information technologies and enter the digital age. Within Beagle's narrative, the transformation of the traditional academic library into the IC (1999) and the evolution of the IC into the LC is explained away as the result of "change dynamics" and "change initiatives" (2004), or "adaptive change" (2009). Terms such as *strategic alignment* (Beagle, 1999; 2004), *strategic fit* (1999; 2004), *functional integration* (1999; 2004) and *change dynamics* (2004) are lexical immigrants in the LIS vocabulary that are used along more familiar terms from the LIS discourse on the management of information organizations such as: organizational planning, organizational scope, organizational domains and corporate learning organizations. Their role is to buttress the concept of "Strategic Alignment" (1999) that Beagle borrows from the discourse of management theory. For Beagle, strategic alignment is both the cause for change and the explanation for how the academic library needs to adapt "to [be able to] manage service delivery in the highly complex and fluid digital environment" (1999). Beagle's constructive rhetorical move has the effect of locating the IC repertoire within an existing order of discourse on academic library administration and management.

The 2003 and 2008 texts by Bennett introduce a critical voice in the IC interpretative repertoire. Bennett's critical perspective on the information commons can be better understood in the wider context of the sub-group of his texts (2003, 2006, 2008) in the corpus. When he discusses libraries designed for learning (2003), his choice to italicize the term *learning commons* and not the term *information commons* in the same sentence (2003) expresses subtly the relative ideological significance of terminology for him. Effectively, by representing the physical information commons as a lower order library type than the learning commons, and perhaps a model that is already "passé", Bennett buttresses his own argument in favor of designing the academic library for learning (2003, 2008).

The construction of the learning commons as an object of discourse is effected by Beagle (2004) in a manner that parallels the construction of the information commons as object of discourse – the term *Learning Commons* is capitalized and contracted into the acronym LC. From a discourse analytical perspective, the process of constituting the LC repertoire out of the IC repertoire rests on Beagle taking an evolutionary perspective to changes in the academic library in terms of services, equipments, and physical settings. This time, Beagle borrows a model of change from the American Council of Educa-

tion to explain the IC/LC evolution as the result of far-reaching organizational change (2004, 2009). Evolution occurs when the academic library progressively adapts to a changing social, educational, and technological context surrounding teaching, learning, and the evolution of educational perspectives on information literacy. This discursive move positions Beagle's explanation in relationship to the LIS order of discourse on library administration and management.

Constituting the role of the learning commons in opposition to that of the information commons, Bennett views the LC as "enacting [an] institutional mission" and moving "from the support of learning [which is the IC's mission] to learning itself" (2008), the LC model is presented as a desirable evolution of an outdated *service-focused* IC model to a *learning-focused* LC model said to respond to current learner-centered trends in higher education as well as to the evolving needs of library users. Bennett's 2008 article presents some interesting semantic characteristics: in particular extensive overwording and repetition express his preference for Beagle's learning commons concept. The choice of the verbs used to describe the respective roles of the IC and the LC in regard to an institutional mission is meaningful as well. The verb *support* (2008) is used to imply the passive role of the library as information commons in the university. In comparison, the verb *enact* (2008), which is action oriented, is used to portray the library as learning commons as a pro-active institutional unit participating in the university's mission to produce student-learning.

The theme of the library designed for learning is activated in all three texts by Bennett (2003, 2006, 2008). Textual analysis demonstrates the versatility of the writer in constructing persuasive texts to reach different audiences and contribute to the diffusion of the library designed for learning (LDL) repertoire as ideology. In the 2006 and 2008 articles, "The choice for learning" (2006) and "The information or the learning commons: which will we have?" (2008), Bennett's discursive style calls to mind political discourse and its propaganda. The titles of these articles could in fact be those of manifestos. The traditional library has been rendered obsolete by the digital revolution and it needs to be overhauled (2006). While the IC and LC repertoires developed by Beagle (1999, 2004, 2009) construct change as *evolutionary*, the LDL repertoire (in particular as activated in Bennett 2006) constructs change as essentially *revolutionary*. Bennett's solution to obsolescence is to produce a paradigm shift that will result in aligning academic library services and practices with learner-centered educational trends (2003 and 2006 in particular). In two of his texts (2006 and 2008), the discourse is oriented towards strategic action; the repetitive collocation of the words *library*, *space* and *learning* creates the effect of a mantra-like incantation from which emerges the seductive expression *library designed for learning*. In marketing, brand mantras often consist of "three to five word phrases that capture the irrefutable essence or spirit of the brand positioning" (Keller 1999). Brand positioning is about creating the *optimal location* for the organization's identity in the minds of customers and of the organization's

employees so that they think of the brand in the “right way” (1999). The LDL repertoire provides academic library administrators with such an expression; *Library designed for learning* performs as a “brand mantra” which aligns the library’s mission along that of the institution. The term can be subsumed within a palatable and institutionally acceptable argument to sway “the willingness of academic administrators to invest in library facility improvements” (Shill and Tonner 2003a) and to “sell” the library within the academic community by re-positioning the library’s identity to fit the learner-centered trend in higher education.

In the process of constituting the LDL repertoire, Bennett pulls in an education-based interpretative repertoire that works at constructing discursively a call for a “paradigm change” in academic librarianship toward “adopting non-foundational views of knowledge” (Bennett 2006). This discursive strategy serves to buttress Bennett’s argument for the design of library facilities that support collaborative learning inside the library instead of “primarily supporting information use-information consumption” (2006).

The library designed for learning is constituted at once as the object of discourse in Bennett’s texts. The writer’s vision of the library as “space to advance learning and teaching” (2003) is constructed by way of categorization, comparison, and contrast of “two conceptions of the library as a place” (2003). The library as a space “where learning is the primary activity and where the focus is on social exchanges through which information is transformed into the knowledge of some person or group of persons” is constituted as a library category and contrasted against the category of “libraries as service places” (2003). In turn, the discursive construction of the “library as service place” (2003) rests on the description of another library category: the “traditional library” (2003). The “traditional library” is constructed as an undesirable and outdated model with a bibliocentric service ethos that serves primarily as a document warehouse or a sacralized book repository. In the LDL repertoire, the library designed for learning is ideologically constructed as the library of the 21st century. Bennett writes authoritatively and persuasively to convince the library community that this new paradigm should supersede all models for library planning and design; the data and discussion of his research presented in the CLIR report *Libraries Designed for Learning* (CLIR 2003) are used effectively to build his case.

Over time, a dialogical process is enacted predominantly in the texts by Beagle and Bennett that constitute a progression of coherent explanations for the need to plan and design academic library services and spaces in response to the new conditions of the digital age (Beagle, 1999, 2004, 2009; Bennett 2006), to “the unique management challenges and demands of information technology” (Beagle 1999), to the focus on information literacy in the practice of academic librarianship (Beagle 2009; Bennett 2008) and to changing trends in teaching and learning approaches in higher education that focus on learner-centeredness (Beagle 2009; Bennett, 2006).

## Construction of the “Academic Library as Learning Place” Order of Discourse

The respective visions of Beagle and Bennett converge to construct the overarching concept of the academic library as a space and place for learning. This concept is enacted in a model of the academic library as a digital age commons appointed with high tech facilities and services for information access, information management and information use that contribute to information and knowledge production. The purpose of the academic library as commons is to provide a learning place aligned with the trend in higher-education toward learner-centered practices (Beagle 2009; Bennett 2008) as such it caters primarily to an undergraduate student population.

Constructed as an object of discourse, the academic library as learning place provides not only access to traditional and emerging tools for the dissemination of knowledge but also adequate and updated spaces to support collaborative knowledge work. An order of discourse has thus been formed through the convergence of the three interpretative repertoires present in the research corpus. Figure 2 illustrates the constitution of the “academic library as learning place” (ALLP) order of discourse in the sample of texts studied.

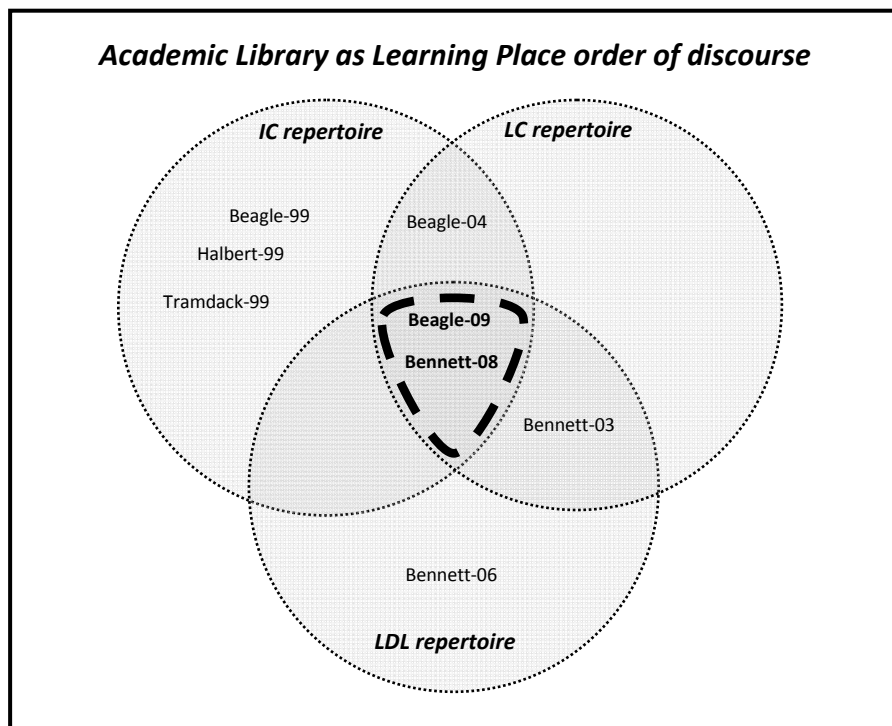


Figure 2: Constitution of the Academic Library as Learning Place Order of Discourse



## Interpretation

For Talja (1999),

“the aim of discourse analysis is not only to identify interpretative repertoires, but to point out the power and influence of particular narratives and to analyze their potential societal and institutional functions and effects”.

Therefore, in order to understand the effects of discourse on social practices related to academic libraries, it is of importance to recognize the agency of Beagle and Bennett in the translation of the IC, LC and LDL interpretative repertoires into the re-conceptualization of the academic library as a learning place. At the discursive level, a community of discourse has emerged where practitioners have contributed to the growth of the literature on information commons, learning commons, and library spaces designed for learning. Another effect of discourse has been the construction of the IC and LC brands with “the library designed for learning” functioning as a brand mantra. The physical enactment of the ALLP discourse is perhaps the most noticeable effect of this discourse. The remodeling and construction of library facilities into information and learning commons is a direct outcome of the implementation of the IC and LC conceptual models at many North American universities.

The ALLP discourse is inserted in a process of diffusion of innovation in the area of academic library planning and design where the model of the commons is constructed as the innovation. Only six years after the publication of Beagle's (1999) seminal article, Albanese wrote “the concept of an information commons or learning commons has been the buzz for the last five years in talking about the new wave of academic libraries” (2006). A rapid survey of the literature on academic libraries published since 2000 shows that a growing number of journal articles have discussed the concepts and models for academic libraries advocated by Beagle, Bennett, Halbert and Trandack (Bailey and Tierney 2002; MacWhinnie 2002; Malenfant 2006; Spencer 2006; Roberts 2007; Halbert 2010; Lippincott 2010). A discourse community exists of practitioner-writers who have contributed to the diffusion of the IC and LC models and the evolution of the discourse on libraries as learning places. Adding to the academic librarianship community's knowledge base on library commons, three monographs have been published that offer extensive guidelines for the implementation of information and learning commons (Beagle, 2006), case studies of information commons (Bailey and Tierney 2008), and a field guide to information commons (Forrest and Halbert 2009). As proof that this discourse has an international reach, there are more and more articles reporting on information and learning commons outside the geographic boundaries of Northern America, for example, Watson (2007) from England, Degwitz (2007)

from Germany, Mountifield (2003) from New Zealand, and the English language abstracts for a number of articles published in Chinese in the e-journal *Da xue tu shu guan xue bao* (Journal of Academic Libraries) that are accessible from <<http://en.cnki.com.cn/>> demonstrate that the trend is far from being a Western world phenomenon.

Case studies published between 1999 and 2009 provide ample documentation of the remodeling or construction of many library buildings called information or learning commons as well as other transformations that include administrative reorganization and creation of new services. The websites of North American academic libraries offer a dazzling array of photographs depicting improved and new facilities designated as commons which provide observable evidence of the physical effects the ALLP discourse has had on the transformation of the academic library landscape and on library spaces. Whether this phenomenon can be directly attributed to the texts by Beagle (1999, 2004), Halbert (1999), and Tramdack (1999) included in the corpus might be difficult to ascertain. Nevertheless, a practical handbook by Beagle (2006) and a monograph edited by Halbert with Forrest (Forrest and Halbert, 2009) are included in the catalog of numerous academic libraries. Other evidence in the literature shows that the authors studied are regarded as experts on library commons. Bailey and Tierney (2002) believe that in their 1999 articles Beagle, Halbert and Tramdack collectively provided roadmaps for incorporating information commons in academic library environments. Beagle (1999) is oft quoted, most recently by Seal (2010) and Lippincott (2010) in reference to the initial and “classic” definition of the IC. Bennett, in turn, is cited in discussions of learning commons; in fact Seal (2010) presents Bennett as a “noted expert on library learning spaces”. Roberts (2007), who advocates the learning commons as place as a “center of community” on campus where technology and space design emphasize knowledge creation, repeatedly refers to Bennett’s report for CLIR (CLIR 2003).

## Critical Analysis

### Branding the academic library as commons

Branding is a marketing tool which aims at constructing an identity for a product to capture the minds of customers with what makes it special and unique (Dempsey 2004). The concept of branding the library was originally imported into librarianship during the 1990s. A flurry of relatively recent articles in the LIS literature demonstrates the currency of the topic for library practice (Dempsey 2004; Stimson 2007). According to Stimson (2007), “a library brand has been defined as ‘all the things that come to mind, all the expectations they have, when they hear the word library’, and how you wish people to

perceive your library.” Through Beagle’s narrative, the Information Commons and the Learning Commons are constructed as brands of libraries for which Bennett’s felicitous coining of the expression *library designed for learning* (Bennett 2003) functions perfectly as a brand mantra or “tagline” (Stimson 2007). Altogether, the effect of the discourse developed in the corpus studied is the construction of a new corporate identity of the academic library for the 21<sup>st</sup> century. The diffusion of these two brands has been effective as the information and learning commons models have been adopted by many academic libraries in North America and around the world and the labels *information commons* and *learning commons* have been used by many institutions when re-naming their libraries.

### The silent metaphorization of the library as business

Prima facie, Beagle’s “Conceptualizing an Information Commons” (1999) provides general guidelines for change; however, introduced implicitly in Beagle’s discourse is the undeveloped theme of the library as business. This is made possible by the interdiscursive relationship with the discourse of management unequivocally established by Beagle (1999) when he introduces the concept of Strategic Alignment to justify the evolution of academic libraries. Yet, while adopting and adapting Henderson and Venkatraman’s theory, Beagle leaves out of his argument the fundamental assumption at the origin of the Strategic Alignment model as it was described by its creators: “[Assumption] one, economic performance is directly related to the ability of management to create a *strategic fit* between the position of an organization in the competitive product-market arena and the design of an appropriate administrative structure to support its execution” (Henderson and Venkatraman 1999).

For Henderson and Venkatraman (1999), strategic fit is a *business goal* which exists in response to the pressures of the market economy. They argue that “the inability to realize value from I/T [information technology] investments is, in part due to the lack of alignment between the business and I/T strategies of organizations” (Henderson and Venkatraman 1999). They propose that for an organization or firm to remain competitive, strategic fit should be extended from the business domain to include the information technology domain. In light of this, what does it mean then that in Beagle’s argument concepts of business domain, market/marketplace, and competition are made to disappear while there remain only mentions of “customer service” delivery and of the maximization of “fiscal resources”? (Beagle 1999). Is it possible that, as in many instances in which a theory is imported from one domain into another, Beagle selected out elements that did not fit with his vision of the academic library as organization nor, for that matter, with the traditional vision of the library as an altruistic non-profit service organization?

Interpretation of the contents of Beagle's text suggests that the library's business domain is located within that of "the larger institution" that is education related. Indeed, the library as Information Commons where the IC is described as an instructional space (Beagle 1999) is in the business of teaching. However, in texts written at a later date, a refocusing of the discourse follows new educational trends; the library becomes oriented towards learning (Beagle 2004, 2009; Bennett 2008). This discursive activity fits in with universities' marketing strategies that promote student-centered education; it ensures the alignment of the academic library's corporate image and taglines with those of the institution.

In the discourse activated in Beagle's texts, the metaphorization "library = business," which parallels the marketization of higher education, is suppressed but implicitly understood. A 2006 study, supported by the Center for Facilities Research of the Higher Education Facilities Officers, showed that the brick-and-mortar academic library placed second as a facility that is "extremely or very important" in students' university selection decision process (Cain and Reynolds 2006). From a market perspective, such findings imply that if the university's goal is to secure a competitive edge over other universities and colleges, then the library has to keep a competitive advantage in terms of the services it offers not only to its community but to prospective students and faculty that the university may want to attract. In this context, strategic alignment becomes more than the information technology management issue described by Beagle (1999); it becomes a marketing issue and the buildings designed or redesigned to accommodate new facilities and services come to perform as marketing tools for the institution.

"Prominent library changes, such as a building renovation, provide the perfect opportunity to re-examine the library 'brand' ... and try to position the library relative to the competition (other information resources and services) favorably in users' minds. In the case of a building renovation, the branding process can also influence decision-making regarding new building spaces, library services and collections" (Stimson 2007).

### Treatment of Space Design in the ALLP Discourse

While architecture and design can be used to reinforce a brand's image, when Beagle and Bennett set off to discuss the planning and design of learning-centered academic libraries they produce lists of desired spaces and examples of space diagrams with sketches of furniture arrangement, floor plans, and photographs from successful library spaces (Bennett 2006, figs. 4-7 and Beagle 2009, figs. 6-9). Such exemplars provide primarily a catalog of forms, styles, and architectural details that have a limited usefulness for librarians in

practice because they do not provide sufficient and adequate information for developing design concepts. Designing a library building with comfortable and user-friendly spaces consists of much more than enclosing and dressing up spaces that have been organized into a functional diagram drawn by a library planning and design team. “Design is about the creation of form that integrates aesthetic intention, functional performance and material durability into a spatial entity” (Shih 2004). However, the academic library as learning place discourse fails to provide a discussion of library building design from a holistic perspective that would encompass form and function as well as comfort (environmental qualities) and delight (aesthetic intentions). Instead, the texts analyzed project an image of architectural design as being an elementary matter of form simply following function subordinated to ideals of service that seems to pervade much of the literature on library planning and design.

Notwithstanding the use of the descriptors “architecture and building” in the bibliographic descriptions for articles written by Beagle (1999), Bennett (2006), Halbert (1999) and Tramdack (1999), in these texts the writers discuss the design of new library services more extensively than the building design attributes of the different versions of academic library they propose. The treatment of library design issues focuses on the types of library spaces that are needed to accommodate activities, the objects and equipment that populate those spaces and operational needs. This approach is characteristic of a vision of library design and planning as facilities management; it dwells on the specifics of a space program where the building is a behavior setting reduced to its non-psychological components – a behavior setting is defined as “a bounded space that is constructed and defined through two sets of components, *psychological* and *non-psychological*” (Holloway and Hubbard, 2001) (author’s emphasis).

Interestingly enough, Bennett (2006) deplors that “the knowledge base that guides library space planning is ... poorly balanced, tilted heavily towards library operations”. He makes a step in the right direction when he identifies the cognitive values present in traditional library buildings designed in the idiom of churches (2006). According to Bennett (2006), the cognitive values that draw people to a place are coherence, legibility, complexity and mystery; however, he does not show how those values might relate to the design of learning places. Beagle, Halbert, and Tramdack as well fall short of discussing the role of psychological factors and place making in their discourse on the information and learning commons.

### Place-making and the ALLP Discourse

The ALLP discourse tends to address what is known through the mind about a library – its role and location on campus and the functions of spaces and their contents; but it fails to address what is known about the library as place

Goal	Reference
Exerts a significant presence on campus	Beagle, 2009
Most powerful community builder on campus	Bennett, 2006
Serves as a hub or locus of all sorts of activities	Tramdack, 1999
Align the library building with the basic educational mission of the university.	Bennett, 2006
Design a space that is deeply responsive to the institutional mission	Bennett, 2008
Intellectual environment where curiosity, creativity, and lifelong learning are sparked and nurtured	Tramdack, 1999
Design space with a focus on student learning	Beagle, 2009
Considers the importance of the social dimensions of learning	Bennett, 2003
Acknowledge the role of food in social dimension of learning	Bennett, 2006
Incorporate working spaces that facilitate integrated IC activities, including collaborative learning	Tramdack, 1999
Design with information literacy instructional possibilities in mind	Beagle, 2009
Organize work spaces and service delivery around the integrated digital environment	Beagle, 1999
Design networked collaborative learning environments that parallel the new corporate environments students will be competing within and where group process can shape knowledge	Beagle, 1999
Design to accommodate changes in or the growth of library instruction programs	Bennett, 2003
Design to accommodate non-library-operations	Bennett, 2003

Table 6: Design Goals for a Learning Library

through the senses. From the perspective of an architect, it is frustrating that this discourse does not address issues of place-making. One of the goals of architecture is to create a physical/material place; but a place can also be architecturally created in the imagination or remembered in memories. The ALLP discourse seems to indicate that in the imagination of library managers and librarians the library designed for learning ought to be a place that embodies a culture of learning and that the brick-and-mortar library should be designed in such a way that its users can *experience* learning. Apart from the usual listing of tasks, activities, and behaviors associated with what has come to be viewed as learning, there is no discussion of what the experience of learning may be in a particular architectural space.

<b>Space Type</b>	<b>Description</b>	<b>Reference</b>
General information and referral desk	functions as first point of contact and general help center	Beagle, 1999
Computer lab	on the first floor of the library near the reference department	Beagle, 2004 Beagle, 2009
Instruction rooms/ electronic classrooms	networked and flexible	Beagle, 1999 Bennett, 200
Support space(s) for library staff's activities	for instructional activities in information literacy and staff development	Bennett, 2003
Group study spaces/rooms	networked collaborative learning environments where group process can shape knowledge	Beagle, 1999 Bennett, 2006
Individual study spaces	individual carrels	Beagle, 1999
Social spaces	comfortable seating spaces role of food in the social dimension of learning	Beagle, 1999 Bennett, 2006

Table 7: Spatial Needs for a Learning Library

To provide a demonstration of the weaknesses of the discourse elaborated in the corpus in terms of helping to conceive of the “library as learning place” in terms of place, the author’s experience as an architect was used to extract from the research corpus the skeleton of a hypothetical architectural program. Using canonical architectural programming categories, goals, needs, and concepts were derived from the information contained in the eight texts analyzed (for an excellent primer on architectural programming see Cherry 1999). Finally, based solely on the researcher’s interpretation of the texts’ contents, a project statement was drafted (design problem) for the design of an academic library as learning place. Results of this exercise are presented below in Tables 6-8 and in Figure 3.

The results of the texts’ content analysis for programming purposes only permitted the researcher to extract a few conceptual requirements. In regard to psychological components of design, nothing more useful is offered in the texts than the vague notion that in order to learn students need to study and for that they require spaces for quiet individual study and spaces for collaborative/group study. Concepts associated with spatial qualities and the sense of place in terms of the environmental qualities and mood or ambiance that would foster learning are found to be sorely missing in the project statement; this reflects an important gap existing in the ALLP discourse.

Concept type	Description	Reference
Form and Image Meaning	The library building will “exert a significant presence across campus”	Beagle, 2009
Image Symbolism	Building design will reflect the library’s role as a “powerful community builder on campus” and “express the unity of knowledge that that underlies the idea of the university.”	Bennett, 2006
Image Purpose	The library building will provide an environment deeply responsive to the educational mission of the institution	Tramdack, 1999
Psychological factors	The library building will provide an environment “where curiosity, creativity, and lifelong learning are sparked and nurtured.”	Tramdack, 1999
Image	The library environment will aim to provide a parallel to “the new corporate environments students will be competing within” after leaving the university.	Beagle, 1999

Table 8: Concepts for a Learning Library

*Architectural Problem Statement*

The library building will have a significant presence on campus and reflect the library’s role as a powerful community builder. The building design will provide an environment deeply responsive to the educational mission of the institution where curiosity creativity and lifelong learning are sparked and nurtured. The library environment will aim to provide a parallel to the new corporate environments students will be competing within after leaving the university. Space design will reflect a focus on student learning that shows an understanding of the social dimension of learning and acknowledges the role of food in social interactions. Provision of adequate learning environments will reflect the need to comfortably accommodate individual and collaborative learning practices supported by a variety of networked spaces organized for work, study, service delivery, and information literacy instruction. Space design will incorporate the flexibility needed to accommodate changes in the future uses of spaces.

Figure 3: Statement of the Design Problem



## Conclusion

Since the mid 1990s, the discourse developed in seminal texts from the academic library planning and design literature promotes information commons, learning commons and libraries designed for learning as the new facilities and services that respond to student-centered educational trends and to the needs of students and educators in our changing digital environment. Discursive activity effectively constructs *the library designed for learning* as a brand mantra useful to market the models of the information and the learning commons while conforming to the spirit of the A2K philosophy. This discourse has provided academic library administrators and librarians with a new corporate identity for the academic library. With time, the diffusion of this discourse throughout the professional community has resulted in the adoption of information and learning commons models for the construction of new and remodeled library facilities that provide innovative library services. In effect, the expansive literature that has been produced on the topic of library commons contains “a great deal of descriptive research documenting the specifics of [the information commons trend]” (Halbert 2010).

Yet, in the professional discourse on the learning commons, there remains to be included a meaningful discussion of the role that library architecture and environmental design may have in supporting the library’s mission to facilitate learning and access to knowledge. It is alarming that existing discussions concentrate on high tech information infrastructures and on space planning aspects of the library – such as floor plans and furnishings – and fail to consider the psychological role architecture can play in the way users experience the library and its sense of place. As a result, generic spatial configurations have become a standard feature of learning commons; yet, should not librarians question the appropriateness of jumping on the bandwagon and buying trendy models wholesale? How does the one-stop shopping information helpdesk work out in practice? It is meant to centralize check out, reference service, orientation and sometimes other non-library services offered at this point. The design of this multipurpose counter has been advocated to serve information and learning commons as a magnet in the middle of a vast reconfigurable multiuse space where an archipelago of computer-islands stands for a vamped-up lab. Sometimes, this configuration works but at other times it does not. As if proof were needed that something is amiss with the cookie-cutter or pattern book approach to library design, some (to remain unnamed) academic libraries have had to remediate to the shortcomings of the central help desk in their newly opened learning commons.

Knowledge gaps still exist in the existing discourse; it fails to help academic librarians think about the library as learning place in experiential terms. It would be more useful for all those involved in academic library planning and design if librarians discussed in greater depth what they mean by *learning*

in the context and physical environment of the library. The information commons model aimed to propose a one stop-shopping environment supporting the transformation of information into knowledge into final product (Church 2005); it originally had a strong focus on high-tech information infrastructures and instructional spaces dedicated to information literacy. In the learning commons, learning is expected to happen from without the confines of the information literacy classroom; however, what learning means and who does the learning remain vague in the existing discourse. In the library environment, is learning a mental state? Or, is it a set of desirable outcomes of some type of activity? Does it correspond to identifiable behaviors? How does learning in the library feel to students? To faculty? To librarians themselves? These are a few of the questions research will need to answer.

Future research needs to move into the field if one is to understand how users of learning commons experience them as space and place. Ethnographic and phenomenological approaches should be used to study various categories of users including students, faculty and library staff. Qualitative research methods including contextual task analysis, questionnaires, interviews, focus groups, participant observation and user studies yield rich and varied data while inductive methods of analysis can provide an understanding of the users' lived experience.

Research is also needed to understand the library as learning place from the perspective of architecture, environment and behavior studies. Post occupancy evaluation techniques from the fields of architecture and environment behavior applied to case studies of existing library buildings should be made by interdisciplinary teams of librarians, architects and environmental psychologists; thus, the study of data from existing library buildings could support evidence-based library planning and design. Given the current obsession with efficacy measurement and evaluation, such as the evaluation of facility improvement on library usage and learning outcomes, it might be useful in the future to integrate such techniques into library evaluation practices.

It is hoped that in the future, by approaching library design from the mixed perspectives of architecture and human geography, ecological psychology, and environment and behavior studies, library managers and librarians could begin to free themselves from some of the conceptual constraints that limit their approach to academic library design. They would then be able to envision imaginative spaces to build the academic library of the future as a place where users can experience knowledge as alive.

## Acknowledgments

I wish to acknowledge the unflinching support of my dissertation advisors, Dr. Nancy P. Thomas and Dr. Lynne Chase from Emporia State University,

Dr. Gloria Leckie from the University of Western Ontario, and Dr. Rebecca Miller from the University of Kentucky. Finally, I am grateful to my professors, numerous librarians and Donald Beagle who encouraged me to publish my work.

## References

- Albanese, A. R., "Breaking ground. Library by design." *Supplement to Library Journal*, Spring, (2006): 1, 4-7.
- Alstad, C. and Curry, A. "Public space, public discourse, and public libraries." *LIBRES*, 13.1. 2003. [http://libres.curtin.edu.au/libres13n1/pub\\_space.htm](http://libres.curtin.edu.au/libres13n1/pub_space.htm) [Mar. 2011.]
- Antell, K. and Engel, D. "Conduciveness to scholarship: The essence of academic library as place." *College & Research Libraries*, 67.6 (2006): 536-560.
- Archer, M., et al., eds. (1998) *Critical Realism: Essential Readings*. New York: Routledge.
- Baker, B. "Values for the learning library." *Research Strategies*, 17 (2000): 85-91.
- Bailey, R. and Tierney, B. "Information commons redux: Concept, evolution, and transcending the tragedy of the commons." *Journal of Academic Librarianship*, 28.5 (2002): 277-286.
- Beagle, D. "Conceptualizing an information commons." *Journal of Academic Librarianship*, 25.2 (1999): 82-89.
- . "From information commons to learning commons." Leavey Library 2004 Conference. *Information Commons: Learning Space Beyond the Classroom*, Los Angeles, CA. 2004. [www.information-commons.auckland.ac.nz/content\\_files/publications/educause\\_article.pdf](http://www.information-commons.auckland.ac.nz/content_files/publications/educause_article.pdf) [Mar. 2011.]
- . "The learning commons in historical context." *Annals of Nagoya University, Library Studies*, 7: 15-24. 2009. [http://libst.nul.nagoya-u.ac.jp/pdf/annals\\_07\\_03.pdf](http://libst.nul.nagoya-u.ac.jp/pdf/annals_07_03.pdf) 2 [Mar. 2011.]
- . "The emergent information commons: Philosophy, models, and 21<sup>st</sup> century learning paradigms." *Journal of Library Administration*, 50.1 (2010): 7-26.
- Bennett, S. "Libraries designed for learning." *Libraries Designed for Learning*. (CLIR Report, Pub. 122.) Washington DC: Council on Library and Information Resources, 2003.
- . "The choice for learning." *Journal of Academic Librarianship*, 32.1 (2006): 3-13.
- . "First questions for designing higher education learning spaces". *Journal of Academic Librarianship*, 33.1 (2007a): 14-26.
- . "Designing for uncertainty: Three approaches." *Journal of Academic Librarianship*, 33.2 (2007b): 165-179.
- . "The information or the learning commons: Which will we have?" *Journal of Academic Librarianship*, 34.3 (2008): 183-185.
- Bjarrum, C. and Cranfield, A. "The future is now: library re-engineering in the 21<sup>st</sup> century." Bisbrouck, M. F., et al., eds. *Libraries as Places: Buildings for the 21st Century*. Proceedings of the 13th Seminar of IFLA's Library Buildings and Equipment Section co-organised with IFLA's Public Libraries Section-Paris, France, 2003. Munich: Saur Verlag, 2004.
- Bolin, M. K. "The library and the computer center: Organizational patterns at land grant universities." *Journal of Academic Librarianship*, 31.1 (2005): 3-11.
- Budd, J. "Discourse analysis and the study of communication in LIS." *Library Trends*, 55.1 (2006): 65-82.

- Buschman, J. and Leckie, G. J. eds. *Library as Place: History, Community and Culture*. Westport, Conn.: Libraries Unlimited, 2007.
- Cain, D. and Reynolds, G. "The impact of facilities on recruitment and retention of students." *Facilities Manager*, March/April (2006): 54-60.
- Cherry, E. *Programming for Design: From Theory to Practice*. New-York: Wiley, 1999.
- Church, J. The evolving information commons. *Library Hi Tech*, 23.1 (2005): 75-81
- CLIR. *Diffuse Libraries: Emergent Roles for the Research Library in the Digital Age*. (CLIR Report, Pub. 108). Washington, DC: Council on Libraries and Information Resources, 2002.
- . *Libraries Designed for Learning*. (CLIR, Report, Pub. 122). Washington, DC: Council on Library and Information Resources, 2003.
- . *Library as Place: Rethinking Roles, Rethinking Space*. (CLIR Report, Pub. 129). Washington, DC: Council on Library and Information Resources, 2005.
- Closet-Crane, C. (Re)Creating the Academic Library as Place for the 21st Century? *A Critical Analysis of Discourse in Discussions of Academic Library Planning and Design*. Thesis (Ph.D.). Emporia State University, 2009.
- Cowgill, A., Beam, J. and Wess, L. "Implementing an information commons in a university library." *Journal of Academic Librarianship*, 27.6 (2001): 432-439.
- Crockett, C., McDaniel, S. and Remy, M. "Integrating services in the information commons; Towards a holistic library and computing environment." *Library Administration & Management*, 16.4 (2002): 181-186.
- Degwitz, A. "Convergence in Germany: the Information Communication and Media Center." *Library Hi Tech*, 24.3 (2006): 430-439.
- Dempsey, B. "Target your brand: Build an identity that works in the age of the superstore." *Library Journal*, 129.13 (2004): 32-35.
- Dewey, B. I. "Social, intellectual, and cultural spaces: Creating compelling library environments for the digital age." *Journal of Library Administration*, 48.1 (2002): 85-94.
- Dodsworth, E. "Marketing the academic library: A necessary plan." *Journal of Academic Librarianship*, 24.4 (1998): 320-322.
- Dowlin, K. "The library as place: Challenges in the digital age." Bisbrouck, M.F., et al., eds. *Libraries as Places: Buildings for the 21st Century*. Proceedings of the 13th Seminar of IFLA's Library Buildings and Equipment Section co-organised with IFLA's Public Libraries Section-Paris, France, 2003. Munich: Saur Verlag, 2004.
- Eigenbrodt, O. "The constitution of library space through activity." Presentation at IFLA 2008 Conference. 2008.  
<http://archive.ifla.org/IV/ifla74/Programme2008.htm#11August24>. [Aug. 2008.]
- Fairclough, N. *Discourse and Social Change*. Cambridge, UK; Cambridge, MA: Blackwell Publishing. Print, 1992a.
- . "Discourse and text: linguistic and intertextual analysis within discourse analysis." *Discourse & Society*, 3.2 (1992b): 193-217.
- . "The dialectics of discourse." *Textus*, 14.2 (2001a): 231-242.  
[www.ling.lancs.ac.uk/staff/norman/2001a.doc](http://www.ling.lancs.ac.uk/staff/norman/2001a.doc) 20 [Mar. 2011.]
- . "The discourse of New Labour; Critical discourse: Textual analysis." Wetherell, M., Taylor, S. and Yates S. J., eds. *Discourse as Data: A Guide to Analysis*. London; Thousand Oaks: Sage Publications, 2001b.
- . *Language and Power*. 2nd ed. Harlow, UK: Pearson Education Limited, (2001).
- . *Analysing Discourse: Textual Analysis for Social Research*. London; New York: Routledge, 2003.

- Fang, C. "University library: The third place for students". Presentation at IFLA 2008 Conference. 2008.  
[www.ifla.org/IV/ifla74/Programme2008.htm#11August24](http://www.ifla.org/IV/ifla74/Programme2008.htm#11August24). [Mar. 2011.]
- Forrest, C. and Halbert, M., eds. *A Field Guide to the Information Commons*. Lanham, Md.: Scarecrow Press, 2009.
- Forrest, C. and Hinchliffe, L. J. "Beyond classroom construction and design - Formulating a vision for learning spaces in libraries." *Reference and User Services Quarterly*, 44.4 (2005): 296-300.
- Freund, L. and Seale, C. "Transforming Library West at the University of Florida: A fairy tale makeover." *Florida Libraries*, 50. 2 (2007, Fall): 14-16.
- Frohmann, B. "The power of images: a discourse analysis of the cognitive viewpoint." *Journal of Documentation*, 48.4 (1992): 365-386.
- . "Discourse analysis as a research method in library and information science." *Library and Information Science Research*, 16 (1994): 119-138.
- Given, L. and Leckie, G. J. "Sweeping" the library; Mapping the social activity space of the public library." *Library and Information Science Research*, 25 (2003): 365-385.
- Gust, K. J. and Haka, C. H. "Bringing users back to the library: a case history." *New Library World*, 107.1222/1223 (2006): 141-148.
- Halbert, M. "Lessons from the information commons frontier." *Journal of Academic Librarianship*, 25.2 (1999): 90-91.
- . "The information commons: A platform for innovation." *Journal of Library Administration*, 50.1 (2010): 67-74.
- Henderson, J. C. and Venkatraman, N. "Strategic alignment: Leveraging information technology for transforming organizations." *IBM Systems Journal*, 38.2&3 (1999): 472-484. First published in 1993, *IBM Systems Journal*, 32 (1).
- Heracleous, L. *Discourse, Interpretation, Organization*. Cambridge; New York: Cambridge U P, 2006.
- Hiller, S. "Measure by measure: assessing the viability of the physical library. The Bottom Line." *Managing Library Finances*, 17.4 (2004): 161-131.
- Holloway, L. and Hubbard, P. *People and Place: The Extraordinary Geographies of Everyday Life*. Harlow, England: Pearson Education Limited, 2001.
- Jackson, H. and Hahn, T. B. "The library as sacred place: Applying the psychology of religion to the academic library as a sanctified space and implications for measurement and evaluation." 2008. Web. 24  
[www.ifla.org/IV/ifla74/Programme2008.htm#11August2008](http://www.ifla.org/IV/ifla74/Programme2008.htm#11August2008) [Mar. 2011.]
- Jørgensen, M. and Phillips, L. *Discourse Analysis as Theory and Method*. London; Thousand Oaks, CA: Sage, 2002.
- Kohl, D. "Where's the library?" *Journal of Academic Librarianship*, 32.2 (2006): 117-118.
- Kratz, C. "New realities, new relationships. Transforming the delivery of service: The joint-use library and information commons." *C&RL News*, 64.2 (2003): 100.
- Latimer, K. and Niegaard, H. eds. *IFLA library building guidelines: Developments and reflections*. Munich: Saur Verlag, 2007.
- Leckie, G. J., and Hopkins, J. "The public place of central libraries: findings from Toronto and Vancouver." *Library Quarterly*, 72.3 (2002): 326-72.
- Lippincott, J. K. "Information commons: Meeting millennials needs." *Journal of Library Administration*, 50.1 (2010): 27-37.
- MacWhinnie, L. A. "The information commons: The academic library of the future". *Portal: Libraries and the Academy*, 3.2 (2003): 241-257.

- Malenfant, C. "The information commons as a collaborative space." *Reference Services Review*, 31.2 (2006): 279-286.
- McCabe, G.B. and Person, R.J. eds. "Academic libraries: Their rationale and role in American higher education." *Contributions in Librarianship and Information Science*, No 84. Westport, CT: Greenwood Press, 1995.
- McKinzie, S. "Library and IT mergers: how successful are they?" *Reference Services Review*, 35.3 (2007): 340-343.
- Mountifield, H. "Learning...with a latte". The Kate Edger Information Commons-providing student-centered learning support. *EDUCAUSE in Australasia*. 2003.
- Nightingale, D. J. and Cromby, J. "Social constructionism as ontology: Exposition and example." *Theory and Psychology*, 12.5 (2002): 701-713.
- O'Connor, R.A. and Bennett, S. "The power of place in learning." *Planning for Higher Education*, 33 (2005): 28-30.
- Owusu-Ansah, E. "The academic library in the enterprise of colleges and universities: toward a new paradigm." *Journal of Academic Librarianship*, 27.4 (2001): 282-294.
- Pelster, N. "Editorial." *Research Strategies*, 17 (2000): 77. Introductory note to an issue on the theme learning library.
- Potter, J. and Wetherell, M. *Discourse and Social Psychology: Beyond Attitudes and Behaviour*. London: Sage, 1987.
- Pothoff, J. K., Weis, D. L., Montanelli, D. S., and Murbach, M. M. "An evaluation of patron perceptions of library space using the role repertory grid procedure." *College & Research Libraries*, 61.3 (2000): 191-202.
- Revill, D. "The Avril Robarts Learning Resource Centre: Liverpool John Moores University." *New Library World*, 98.1138 (1997): 258-266.
- Riggs, D. E. "Joint use libraries: Thinking out of the box." *College & Research Libraries*, 61.2 (2000): 96-97.
- Roberts, R. L. "The evolving landscape of the learning commons." *Library Review*, 56.9 (2007): 803-810.
- Ross, L. and Sennyey, P. "The library is dead: Long live the library! The practice of academic librarianship and the digital revolution." *Journal of Academic Librarianship*, 34.2 (2008): 145-152.
- Samson, S. and Oelz, E. "The academic library as full-service information center." *Journal of Academic Librarianship*, 31.4 (2005): 347-351.
- Seaman, S. "The library as learning environment: Space planning in an academic library." *Colorado Libraries*, 32.1 (2006): 5-7.
- Shi, C. "Between concept and form: Learning from case studies." *Journal of Asian Architecture and Building Engineering*, 3.1 (2004): 217-221.
- Simons, K., Young J. and Gibson, C. "The learning library in context: Community, integration, and influence." *Research Strategies*, 17 (2000): 123-132.
- Snavely, L. "Learning library." *Research Strategies*, 17 (2000): 79-84.
- Spencer, M. E. "Evolving a New Model: The Information Commons." *Reference Services Review* 34.2 (2006): 242-247.
- . "The state-of-the-art: NCSU Libraries Learning Commons." *Reference Services Review*, 35.2 (2007): 310-321.
- Stimson, N. F. "Library change as a branding opportunity: Connect, reflect, research, discover." *College & Research Libraries News*, 68.11 (2007): 694-698.
- Talja, S. "Analyzing qualitative interview data: The discourse analytic method." *Library and Information Science Research*, 21.4 (1999): 459-477.

- . "The social and discursive construction of computing skill." *JASIST*, 56.1 (2004): 13-22.
- Taylor, S. "Evaluating and applying discourse analytic research." Wetherell, M., Taylor, S. and Yates, S. J., eds. *Discourse as Data: A Guide for Analysis*. London; Thousand Oaks: Sage Publications, 2001.
- Templeton, T. C. "Placing the library: An argument for the phenomenological and constructivist approach to the human geography of the library." *Library Quarterly*, 78.2 (2008): 195-209.
- Thomas, M. A. "Redefining library space: Managing the coexistence of books, computers, and readers." *Journal of Academic Librarianship*, 26.6 (2000): 408-415.
- Tramdack, P. "Reaction to Beagle." *Journal of Academic Librarianship*, 25.2 (1999): 92-93.
- Van Pelt, P. "Putting talent to work in the creation of the learning library." *Research Strategies*, 17 (2000): 93-98.
- Watson, L. "Building the Future of Learning." *European Journal of Education*, 42.2 (2007): 255-263.
- Waxman, L., et al. "The library as place: Providing students with opportunities for socialization, relaxation, and restoration." *New Library World*, 108.9/10 (2007): 424-434.
- Wood, L. and Kroger, R. O. *Doing Discourse Analysis; Methods for Studying Action in Talk and Text*. Thousand Oaks, CA: Sage, 2000.

# A Tale of Two Libraries: Space and Reading in Porto Public Libraries

Paula Sequeiros

*Librarian, Researcher with the Instituto de Sociologia, University of Porto, Porto, Portugal*

and

Silvia Grünig

*Architect and Urbanist, Pedagogic consultant at the Universitat Oberta de Catalunya, Barcelona, Spain*

## Introduction

Until 2001, people in Porto, Portugal could only visit or borrow books from one library – São Lázaro – located where the historical centre and the eastern end of the city meet. Then, a new building, the Almeida Garrett Library, was designed and placed in an almost equidistant position between the historical centre and the western zone. Both buildings and their reading atmospheres are quite different. Readers and professionals tend to compare them. And so the question arises: how do two different architectural spaces shape reading practices, even though they are inserted in the same city and serving potentially similar readers? The question sought to explore the interaction between people and space, in other words, how a space provided for reading may be appropriated, how it shapes reading practices, and, what social relations are performed in such reading spaces.

Buildings tend to reflect both public reading and local cultural policies, even though the use of the space may alter and circumvent the programmed institutional aims. This analysis of space usage takes into account such policies and actual reading practices, along with their meanings and emotions. Social issues such as class, gender, ethnicity, age and power relationships provided a context for this analysis. As the public services and public buildings were analyzed, a research approach was designed to place reading in the context of urban public space, urban conviviality and the importance of democratic places for encounter and discovery.

## Theoretical Framework

The places where one chooses to read are expected to provide a certain level of comfort and privacy. From the space where one reads one builds mental spaces



for mentally intense activities. Defining space was the first step in building a theory on the interaction of people in the course of reading and space.

With respect to space and social life Lefèbvre writes:

“[Social] space is not a thing among other things, nor a product among other products; rather it subsumes things produced, and encompasses their interrelationships in their coexistence and simultaneity – (relative) order and/or (relative) disorder. ... Itself the outcome of past actions, social space permits fresh actions to occur, while suggesting others and prohibiting yet others” (Lefèbvre 1991).

Synthetically, Lefèbvre posits that space is, simultaneously, the product of social practices, as well as of economic, political and scientific representations – “the representations of space” – and a set of cultural codes conveying images, mythical narrations, cultural symbolic expressions – or “the representational spaces” (*ibid*).

From his Marxist perspective, space as a commodity, is both a product and the means of production of social relations. The naturally perceived, visual, abstract and yet reified character of space, easily surfaces. Space is engendered by and reflects power relations. So, appropriated space must also be considered and not only the space of property. While unveiling that social relations exist only in and through space, this framework stresses the importance of space use and its qualitative properties, promoting not only the knowledge of space, but also a critique of its use.

### Space, Visibility and Space Legibility

The constant bombardment of images, characteristic of our times, obscures the contribution that social relations have in producing and reproducing space. Being an abstract concept, space is a difficult theme to address through discourse. To overcome this abstraction, rhetorical devices, such as metaphors, are used in everyday speech requiring analysis in order to understand their deeper meanings. Technician or purely aesthetic approaches disregard content, favoring vision from, but not a reflection on space. Lefèbvre’s triadic model, interconnecting space as perceived-conceived-lived, allows for a holistic, combined focus on form, structure and function.

### Space, Property and Spatial Appropriation

The concept of appropriation is central to Certeau’s thought (1984) since people may behave in different ways within a single place and may eventually transform the place. Certeau also claims that space, as seized by vision, may conceal more than it may reveal. So, everyday life spatial practices should be

addressed rather as “a specific form of operations (*ways of operating*)” which favors “*another spatiality* (an *anthropological*, poetic and mythic experience of space)”. Instead, kinesthesia and emotions need to be brought together to feel the created space.

To understand how appropriation is performed, the concepts of strategy and tactics are advanced. Use is opposed to consumption: the latter is tied to those with the power to impose an order on culture, to commercialize products; the former is tied to persistent practices, the everyday life ruses of those using the products, resistance and maneuvering. In a dynamic network of power relations, different interests and desires may lead to unreasonable uses of a predefined space. *How* space is used may be more relevant, then, than *what* is used. *Strategy* is a calculus of force-relationships made possible by conceptually isolating a subject, with will and power (institution, city, enterprise) from the environment. Strategy asks for a *place* circumscribed as a *proper* – of one’s own – from where to operate rationally, connecting to or opposing the external environment (*ibid*). *Tactics* is the calculated action of those who, lacking a proper, use the place of others. “In short, a tactic is the art of the weak”, a movement within the enemy’s panoptical field of vision” (*ibid*).

This methodological framework allows researchers to overcome an exclusive or excessive focus on homogenization and repression, and to understand what real people really do.

### Place and Action

According to Certeau, while “space occurs as the effect produced by the operations that orient it, situate it, temporize it, and make it function in a polyvalent unity of conflictual programs or contractual proximities”, “place is a practiced space”. The discourse on travelling oscillates between either *seeing* or *going*, while the discourse on walking, through an apartment or street, centers around trajectories. A method for reading, the *making* of space and place is therefore proposed, along with references to a pre-established geography.

In an analogy between walking, reading a text or narrating a story, the narrative’s role is directed to surpassing the illegibility of space and focusing on a “theatre of the legitimacy for effective actions”. The *region* – a “space created by an interaction” – is to be taken as the unit of analysis, morphology is to be set aside, and pragmatics and syntax to be applied to “*programs* or series of practices through which space is appropriated”.

These combined perspectives of social space in relation to practices and to negotiation or conflict are particularly fruitful in times and situations where spaces are becoming increasingly polyvalent. And more so, as the perspective of readers themselves and their protagonism, is fundamental to a commitment to intervention and social change.

## Methodology

The next concern was to link facts to processes, individuals to social relations, through a reflexive approach that would take into account the social contexts of their occurrence. Another concern was to create intersubjectivity among subjects and objects of knowledge through dialogue by focusing on theories of self, their values and meanings and on their actual practices and discourses (Donmoyer 2000). An integrated, qualitative approach was designed, directed at the social actors' actual practices and their interpretation (Blumer 1969; Geertz 1975).

For each site analysis, Burawoy's Extended Case Method (1998) was adopted. This method privileges the *transferability* of knowledge produced from singular situations, as opposed to the traditional concept of *generalizability*, tied to the statistical analysis of extensive quantitative data from several cases. Just as an individual may learn from vicarious experiences, so may people learn from single cases, given the fittingness of conclusions. This main advantage of this method is a combination of in-depth analysis with context insertion, linking the unique to the whole society, thus providing for rich interpretations. Later, each case's data was compared in a table for a simpler visual perception of similarities and differences.

Seeking strong ethnographic support, observation (Seale 2004) and in-depth semi-structured interview techniques (Kvale 1996) were applied. Theoretical samples were constructed according to the perceived social diversity (class, gender, age, education, ethnicity, disabilities). Twenty-eight users, two library managers, one assistant librarian, the maintenance supervisor, and the architect were interviewed in Almeida Garrett (AG). In São Lázaro (SL), interviews were conducted with twenty-two users, two managers and three architects. Young children were analysed through informal conversations with them and their relatives and through drawings done by them on "what is a library" (Eder and Fingerson 2002). Field work in AG was conducted between the end of 2008 and mid 2010, while in SL it was done during February and March 2008 and from May to July 2010. The buildings were analyzed aesthetically and functionally as was their urban insertion.

A commitment to the intentionality of the constructed object and the purposes of the research, the authors assume favoring the provision of democratic spaces for public reading as a relevant public service (Haraway 1991). They also assume that such spaces are to be enjoyed for conviviality, culture, leisure, information or learning by all citizens alike.

## The City as Context

In terms of population, Porto is the second largest city in Portugal, with over 260,000 inhabitants. It spreads along on the right bank of the Douro River, where the river meets the ocean. An Atlantic climate which is humid and moderate with some cool nights wraps the city. Frequent rainfall and mist, mostly in the mornings, are characteristics of the cooler seasons. The city is historically renowned for its local and international trade, particularly the port wine business. Today, Porto reveals an important but persistent trait: it has been losing population since the 1960s, especially young people who migrate to surrounding municipalities where housing is cheaper.

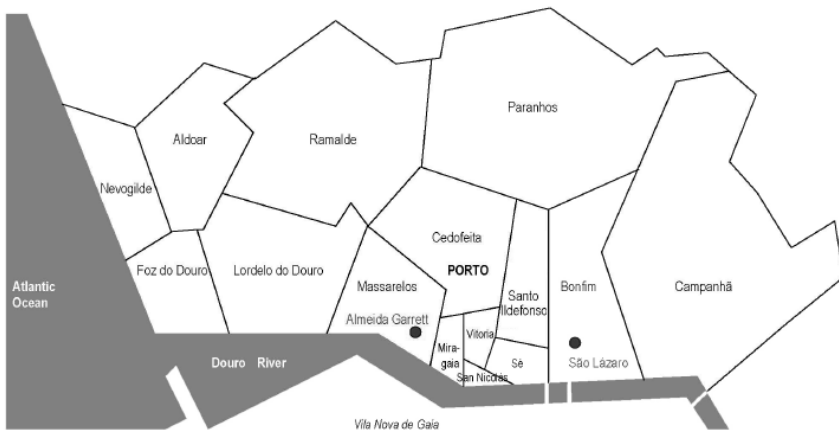


Figure 1: Porto and the location of the two libraries

As a cohort, the elderly of Porto exceed the national average. Ageing is particularly noticeable in the progressively abandoned historical centre (Sé, S. Nicolau, Vitória and Miragaia parishes). In Porto, small families predominate (67%)<sup>1</sup> and people living alone (18%) outnumber those in neighboring municipalities, both indicators registered a noticeable growth in the 1990s. A similar comparison can be made with regard to childless or mono-parental families (Pereira 2005, 2006). Economic life presents an internal differentiation and a singularity: 70.4% of the economically active are employed in the tertiary sector, compared to 40% in the North Region.

<sup>1</sup> All quantitative data is taken from the 1991 census.

The last decades have witnessed a process of de-industrialization, while the middle-class maintained considerable relative weight. Significant changes have occurred during the period 1981-1991. In 1991, the entrepreneurial small bourgeoisie accounted for 35.6% (42.6% in 1981) of the population; intellectual and scientific professionals accounted for 13.2% of the population (14.2% in 1981); those occupied as industrial workers represented 27% of the population (as against 19.9% in 1981). Porto is now a “city of clerks and service workers, with a remarkable presence of members of the intellectual and scientific petite bourgeoisie as well as managers” (Pereira 2006).

Social housing projects, built around previous city limits, became the destination for those who were forced to leave the city centre. These are mainly the less educated workers. These housing projects represent the younger face of the city and are tied to industry. The older face being the historical centre and Campanhã, both of which have higher population densities. The unemployment rate is 6.9% which is higher than the rest of the country. In terms of unemployment rates, the old city and Campanhã account for 8% and 10% respectively and the metropolitan area, 6%. Precarious jobs provide employment for about 15% of the population. Persons engaged in qualified professional activities are unevenly distributed across the parishes.

In terms of education, 14.8% of Porto’s population holds a university degree – this is a higher rate than the rest of the country and nearby rural areas. These credentials are again unevenly distributed, higher qualifications range from almost 30% to only 3% or 5% in different parishes. Among women working for a wage, 21% have higher education. Of those living in the historical centre, half of them went to primary school only. The basic illiteracy rate in Porto is 4.3%, whereas the national level is 8.6%. In the historical centre it is 6% and in Campanhã it is 7.8%. In terms of ownership of books in homes, 40% of families have between 10 to 30 books at home. This equates with the percentage of the population that represents the most economically fragile. 10% have no books at home; and, an intermediate group, 28% of the population has between 31 to 100 books in their homes. Those owning more than 500 books are predominantly intellectuals and professionals in the sciences. It should be noted that “a strong domesticity of practices (free time routines and receptive domestic leisure)” is to be found (Pereira 2006).

The socially depressed areas of the historical centre and Campanhã account for a voting preference to the left, with few persons from these areas voting right-wing. Nevogilde votes predominantly to the right. Other parishes vote to the centre, centre/left.

In terms of religious beliefs and practices, 80% declared that they were Catholic. Among these, 29% do not attend institutional rituals, about a third on occasion, many preferring to pray individually.



Figure 2: S. Lázaro Library, main façade (RSC)

## Results and Discussion

### Urban insertion

#### *São Lázaro Public Library*

Since 1841, the Municipal Library of São Lázaro has occupied a two-storied baroque building dating from the end of the 18th century. Formerly, the building housed the Santo António convent. The building is located in the parish of Bonfim, near the historical centre and it is also close to the most economically disadvantaged zones (Campanhã and the historical centre). The Municipal Library of São Lázaro was one of the first public libraries in Portugal. Historically, it is tied to the 19th century Liberal revolution, when the properties of religious orders were confiscated, including their rich libraries. As a consequence of Porto's strategic role in the Wars, several men of importance demanded that the winning sovereign, Pedro IV, create a library in the town. Among these men were lecturers and members of the Royal Academy of Merchant Navy and Commerce, a predecessor to the University of Porto (Santos 2006). João Baptista Ribeiro, Director of the School of Arts and the painter of a portrait of King Pedro IV, was one of the men who petitioned for the library. Several of the early librarians were recruited from the Academy. The library was officially inaugurated in 1842, on the first anniversary of victory over the Absolutists (Bruno 1906). The Royal Decree establishing the library stated that it was conceived as a “complement to the instruction system” (Biblioteca Pública Municipal do Porto 1984). In 1876 it became a municipal institution.

According to the original purpose, the exterior is austere, massive, with a pitched tiled roof and a central patio. The walls are painted white and the openings are framed with darkened granite. The building is in a reasonable state of conservation, especially the main façade and the part that is on Rodrigues de Freitas Av. Other façades had several volumetric additions over time

eventually turning the whole into an impenetrable structure. Architectural interventions, according to the needs of the day, have been carried out at different times by several architectural teams. The main entrance is located opposite to the São Lázaro garden, from which the building takes its popular designation. The central front door on D. João IV St. may be reached through a narrow side-walk. A lateral door, in Morgado de Mateus St., gives way to the auditorium on the upper floor.



Figure 3: S. Lázaro Garden, facing the library entrance (RSC)

The well-used gated garden may be reached from any side. Groups of elderly men may be seen there during the day, frequently playing cards. When one looks at the complex, there is no apparent relation, not even visually, between the garden and the library. The architect who was interviewed declared: “The inside-outside relation has always been despised” in spite of being “a library with public access; the relation to the city should be relevant” (Tasso de Sousa). Another admitted that the urban insertion into the library’s space did not bother him because “a library’s time is not public, it belongs to those working there who have to know what they’re dealing with” (João Carreira).

The initial plans for the building aimed at creating a cultural, scientific and leisure complex, including a museum, the library and the Arts School. It was also envisioned that there would be exhibitions of plants used locally in agriculture, arts and pharmacy in the opposite garden (Biblioteca Pública Municipal do Porto 1933).

The library is easily accessed by public transportation.

#### *The Almeida Garrett Public Library*

The new library was built closer to the western area of the city, in the parish of Massarelos. It is about a fifteen minutes walk from the other library. This is a more modern centre, the preferred location for the headquarters of service businesses and it is less than double the distance from the historical centre. In

2001, a ten year-old project was begun, taking advantage of the financial opportunities provided by Porto's nomination as the European Capital of Culture.



Figure 4: 'Spring' statue (RSC)

The new building was inserted in the city's largest public park, Palácio de Cristal<sup>2</sup>, with an area of approximately 0.1km<sup>2</sup>. The recently re-qualified garden maintains its romantic layout of paths and the cultivation of important vegetable species. This vegetation includes a multitude of magnificent sized centenarian trees. Due to the site's altitude, the park has a privileged view over the Douro River. A huge domed pavilion, built in 1956, replaced the 19th century iron-and-glass Crystal Palace, after which the park was named. There is also a children's playground. The Palácio is a frequent leisure destination, especially for families with children. The area is served by a well-developed public transportation system.

The main concern of the architect, José Manuel Soares, was "to *bring* a garden into the library without *carrying* a building into the garden". The main façade of UV filtering glass is disguised by a curtain of halved pine wood logs aligned transversally, preventing over-exposure to sunlight and allowing for "transparency" towards the garden and "maintaining a relation with the surroundings and the specificity of the place." The building occupies an area of 900m<sup>2</sup>.

---

2 The Palácio de Cristal is also referred to as the Palácio or Crystal Palace.



This chapter proceeds to present a comparison of results collected on an item by item basis, comments collected at both libraries – AG and SL – as well as the authors’ interpretation of the findings.

### Inserted or dis-inserted?

Almost all of those interviewed use public transportation or walk to get to the library: many of those interviewed live in neighboring cities. AG’s location in the park is appreciated, “it’s integrated in Nature”, and even if the entire park is not visited, the garden “ease[s] your mind”. While adults rarely use the park, children make considerable use of it. Reading may be so absorbing that even large peacocks walking along the windows may pass unnoticed.

SL’s garden is not used by readers; library and park goers ignore each other. An African immigrant confessed his uneasiness and personal fear as near-by streets have a reputation for being frequented by “prostitutes and drunken men”. Although unwanted – and even frequently silenced as inconvenient – SL’s relation with surrounding city zones may be sensed and is still socially traceable.

### Space Provided – Concepts, Form and Function

#### *São Lázaro*

Consequent to its inauguration in 1842, special reading services were implemented during the last century: a Children’s Library and a Female Reading Room in 1945. In 1973, a library for the visually impaired was completed. It should be noted that projects to create small libraries for public leisure in other city areas were not continued or ever implemented (Biblioteca Pública Municipal do Porto 1984).



Figure 6: S. Lázaro’s Patio (RCS)

The reception hall has been recently renovated. The granite on the floor and walls contrasts sharply with the large laminated white counter desk and the milky white acrylic units that are used as lockers. Important personal belongings may only be carried into the library in a transparent plastic bag provided by the library. There is abundant lighting throughout.

The ground level has a corridor around a gardened patio which has a centrally placed Baroque fountain. Glazed tiles from different places decorate the walls with their naturalist Baroque paintings. In a corner there is a vending machine for beverages and snacks. In order to smoke, some people go into the patio which is enclosed by glass doors. Other than that the patio is unvisited. A sign points to the Children's Library. All other public rooms are upstairs. Storage for the collection, with no public access, is on the lower level. A granite staircase, showing signs of considerable use, leads to the hall above. The hall is decorated with carved cabinets, tables and chairs made from ancient dark oak. From there one reaches other areas of the library: the free-access reading room; the catalog room with an Internet area and photocopying services; the serials room, presently closed due to a reduction in staff; and, the general reading room which is the main and largest area in the library. Wireless Internet is not available. An elevator connecting the hall to the stacks is intended for staff use only, but disabled readers are allowed to use it.

The three recent and main architectural interventions are as follows: the free-access and catalog room (Tasso de Sousa); a children's library (Souto de Moura); and, a general reading room (João Carreira). They were separately conceived. Statements of the architects on their work are presented below:

- “It's a building composed room by room and year by year, with partial interventions, with a fortuitous dynamics, with a lack of logic, completely the opposite of a whole, organic building” (João Carreira).
- In spite of being “very favorable to the exposition of diachronies”, they are so frequent and “uncontrolled”, that maybe the building has now reached a “certain chaotic appearance”, with an interior not corresponding to the exterior volume, following a summing up of interventions (Tasso de Sousa).

Tasso de Sousa also remarked that no concepts, quality standards or guidelines were given to him with respect to the interventions he created and which were completed in 2001. Theft prevention and the maximization of shelving space were the major concerns. A constraint was the nature of the interventions, “not on a whole building” but directed at specific problems through “momentary responses”. Born in 1941, Tasso de Sousa was inspired by Michael Brawn-Riba,

Gunnar Asplund's public library in Stockholm, the 18th century university library of Coimbra, or, "symbolically", that of Eco's<sup>3</sup>.



Figure 7: Free access room in SL (RSC)

The free-access room has a staff desk facing two round large tables for reading serials, two rows of facing tables and an Internet area with several desks at the far end, totaling 32 seats. To the left, a narrow mezzanine, lined with shelves, borders two sides of the room, using the space to its full advantage. A few multimedia items are displayed. Access to the toilets is gained through the entrance.



Figure 8: Using the card catalog

The catalog room is a long corridor with the card catalog cabinets and the manuscript catalogs on one side, an Internet area on the other, and the photocopying

---

3 In his book, *The Name of the Rose*, Umberto Eco describes a labyrinthine library in a medieval monastery where especially coveted and forbidden books were hidden. Access to these books was protected by secrecy and all kinds of traps including mortal ones.

desk at the end. There are three generations of catalogs that one has to consult in order to access the collection of 1.5 million titles. These are a catalog published as books; a card catalog; and, from 1991 onwards an electronic catalog.

The space “was modeled with the cabinets themselves” says the architect who covered them in dark wood simulating a monk’s cell, evoking the ambiance of the former convent. The idea was to provide “comfortable access” to the filing cabinets from an elevated platform, but a stool is needed to reach the top drawers.



Figure 9: General reading room in S. Lázaro (RSC)

João Carreira, born in 1956, was commissioned to renovate the general reading room. Reverently alluding to the awareness of being inside a Baroque convent, he stressed how that influenced the project which he developed between 1984 and 1985. “Absolutely no guidelines” or concepts were provided, just functional requirements, chiefly the need to enclose stacks and to control temperature and humidity. Keeping artificial lighting at low levels, against the electrical engineer’s opinion, was his personal concern “this is a library, not a factory!” Each table is provided with an individual lamp.



Figure 10: Stacks with old books protected by wire (RSC)

Faced with the demand to maximize the use of wall surfaces to display old, untreated books in a room with multiple openings, the idea of using an “almost obsessive” repetitive modular approach to the design, “as in Borges’ Babel library”, came to Carreira’s mind. Dimensions were determined by the need to have “modules fitting almost every circumstance” – stacks, lamps and a need to conceal the HVAC<sup>4</sup> system. The stack structures are made of black metal, shelves are made of semi-dark wood, enclosed by black wire panels. The same materials were used for tables and chairs. A new mezzanine was designed and the original wrought iron staircase was renovated. A majestic oil painting of Pedro IV, in military uniform, hangs on the wall behind the attendant’s desk.



Figure 11: Pedro IV’s portrait (RSC)

Seating for 124 people is arranged in rows facing each other. Frontal and lateral shields of opaque glass divide the long tables into various individual sections. Since the closing of the serials room, some of the lateral shields were recently removed to accommodate large-sized volumes such as bound newspapers. Individual tables are available on each side, lining both façades. Some have wired Internet connection.

When entering the room, readers must hand in forms for the documents they wish to use, having written them up in the catalog room. They sign-in in a registry book and are assigned a seat by an attendant. The completed forms are passed on to the deposits section, the documents are sent up by elevator and then delivered some minutes later to the reader who is seated at a table.

---

4 HVAC - Heating, Ventilation and Air Conditioning

Although he was criticized by the management for not providing more privacy, the architect did not wish to place people in “horse boxes”, allowing instead for some proximity between the readers. Although not explicitly required, Carreira argued, that as a public space, the library should be comfortable to use.

Souto de Moura was born in 1952. His office authored the project to renovate the children’s library, the auditorium and its adjacent bathroom. These were completed in 2001. An architect and a technician from that team were interviewed. For this intervention, shelving space was the primary concern of the managers, “the fundamental premise was 20,000 linear meters for stacks”. Even the auditorium’s walls are covered with closed shelves. But, it must be noted that reverence to heritage and control were implicit in the architects’ discourse about the project and were clearly imprinted on the final result. International standards for archiving were also considered.

There are 30 seats in the small children’s room for when schools visit the library. Guided visits to the entire library may be provided for them. Closed on Sundays, it is unoccupied most of the time. Shelves cover most of the wall surface. The room may be accessed directly by a near door in a lateral façade. There is a plan to use it to separate children from adult visitors.

Another interesting room is the one for rare documents. It has antique tables, 13 chairs and several enclosed bookcases against the walls. Readers are escorted to it by staff and requested rare documents are sent to the reader from the stack area. A staff member is always in attendance.

Special services are provided for the blind or those who are unable to hold books in the recording booths of the audio library. Professional and volunteer readers do the recordings for the audio books. Aural substitutes for novels or handbooks are regularly produced and sent by mail. On-demand recordings are accepted mainly from persons who are students. Readers who need special services are located all over the country and abroad. Holdings include some 7,000 analogue and 380 digital recordings.

### *Almeida Garrett*

José Manuel Soares, AG’s architect, was given two main conceptual guidelines by the town’s Councilor for Culture:

1. “[A] library for those who don’t have books, for who’s going to have a first contact”; and,
2. Somewhere for students to work or someplace where someone who just wishes to read a newspaper can sit and read. This is to be somewhere that has “continuity with the public space”, “as if inside a supermarket, entering or leaving easily”.



Figure 12: Main façade with log curtain (EL)

A collaborative team was created, which included Soares, the Councilor for Culture and the local Chief Librarian. The team received full the co-operation of the supervising organization – the Book and Libraries Institute. The budget was comfortable enough to allow for experimentation – the wooden curtain being an application of research which had been conducted by engineers from the University of Porto – and for noble materials – such as the large white marble flags and filtering glass. Born in 1953, Soares stressed the kind of teaching he received at the Porto School of Architecture where he was a student just after the 1974 revolution:

“a fundamental thing, a humanistic ability, an ability to generalize and integrate, things that nowadays ... social [and] political concerns, mixed with ethics and aesthetics, practicing ...”.

To preserve some huge, ancient trees, a straight-line entrance was not created. Instead, the existing waving path through the garden was used. After crossing the park’s iron entrance gates, visitors must take one of the paths that go around the lake and statues. These statues are allegories of the four seasons (Figure 4). One also walks past huge araucarias, ginkgoes, magnolias and lawns before reaching the building which is hidden behind a curtain of logs.

“Unlike a shopping-mall” or a large supermarket where people feel frequently disoriented, a sense of orientation was planned. The relation with the city gets “known by heart”, although one can get some glimpses of the neighborhood through some windows in the back façade (Figure 5). In public libraries, readers “need small spaces, more than large ones” so as “not to get dispersed”. A good place is not where everything is, rather it is “where we may have our own secluded spots”, which “has to do more with atmosphere quality than with drawing”, “a variety within ... great unity”, those “physical qualities of space that may be appropriated”. The project sought to reach “an architec-

ture for this specific case”, in “a binomial relation” of openness and enclosure. Which evokes Eigenbrodt’s requirements for “communication, access, orientation and freedom of movement” when “designing library facilities for everyone” (2008).



Figure 13: Acesso+ (left) and serials areas (EL)

Soares conceptually based his design on the “basic idea [...] of the] Jesuit church”: the “have as a collective space, with a common roof. Lateral chapels for individuality, calmness [and] more spaces”. “And there are transversal relations and longitudinal relations among them”. “But quite differently form a religious space, isolated, directed” – a cathedral is “centripetal” – “this [...] is clearly a *debatable* space”. Spaces that “have to be relatively neutral, [...] so that they may be adapted to different philosophies that get to change, even with time”.

Soares states that he tried to use “the hierarchy [of spaces ...] from a strategic point of view” creating zones with decreasing levels of noise to facilitate increased concentration, as entrants progress, with a “relation among passage and [...] still spaces”, not disregarding security issues, but allowing for a global visualization. His intention was to avoid the conventional connotation of floor height with status. Questioned whether flexibility was also in the building’s program, he answered: “Indirectly! Space and stability are fundamental things in such a space. There are always people passing through spaces we wouldn’t want them to”.

The lobby consists of two levels. A white marble staircase leads down to the reception desk and the lockers. The facing wall is painted in a contrasting dark pink. A large auditorium is on the left, ahead is a corridor leading to the cafeteria and toilets. The library’s reading spaces are situated on the right. The top level is occupied by an art gallery. An elevator is available for public use to all levels except to the basement, where technical services and the garage are located. To the right of the stairs is a tree-like wooden sculpture, rising from floor to top, visually it unifies the two levels.





Figure 14: Lobby, the tree-like sculpture at the back (EL)

On leaving the lobby, the floor is covered with light wooden boards. The same type of wood is used for the furniture and stacks. The glass walls display colors, shapes and movement in the surrounding garden or the city. The few blank walls to the left are painted white. The ceiling has a wavy surface which also serves as an acoustic improvement.

Nearest to the stairs is the Children's Area which is at a slightly lower floor level. Access is provided by a ramp. Waist-high stacks, cubes for albums, small tables, 74 chairs, some computers and cushions are in this area. Rectangular tables are arranged in sets of four and larger round tables are placed along the sides. A few tables have a laminate coating for manual activities. A small room has been provided for Story Hour reading aloud.



Figure 15: Ramp to the children's area (EL)

Along the main façade, a corridor leads to the adults reading area which has 130 seats. A central mezzanine, which creates a void like that of a large well, allows one to see down to the lower level. The multimedia area with several

computers, TV sets, round tables and sofas with seating for 28 is found in this section. The Internet may be accessed from 20 points and Wi-Fi is available all over the building and in the garden. A collection of 63,500 titles may be searched in an online catalog. A workstation dedicated to the blind and amblyopic (Acesso+) is at the entrance to the adult's area.

Covering an interior wall of the mezzanine and stretching down two levels is a portrait of Almeida Garrett, the romantic writer after whom the library is named. Its watercolor-like paint strokes and imprecise traits portray a phantom-like impression rather than a realistic image. The painting is neither monumental nor authoritarian.



Figure 16: Garrett's portrait (EL)

A glass panel was later added to soundproof the noise from the children's area. A complete visual perception of the whole, almost an open space, is facilitated. While seated in the cafeteria, people accompanying children may watch them in the Story Hour room through the glass panels in the walls of the patio.

Reading tables are placed in different configurations in the adult area, in pairs by the windows, in rows at the end of the reading area by the lateral façade, in a larger group in the Internet area; chairs line the mezzanine's counter. Stacks located around the floor provide some privacy and they also serve as a means of controlling noise flows. Some stacks are placed against walls.

## Space Appropriated

### *General traits*

Readers rated AG's building very positively with comments such as "well achieved", "wide", "with [...] no obstacles", "all very pleasant", "cozy" and "one of the best things Porto has". Other comments included "full of light" and "transparency" suggesting a hypallage – the transference of a quality from physical conditions to the emotional ambiance of openness and tranquility.

Only a female reader, living in a therapeutic community commented negatively when she said “a true rigidity, [...] this building restrains ... I was the one who had to adapt”. This could perhaps be a reflection of her uneasiness of be-ing in a public space. Luminosity and transparency are, in the view of the authors, a translation into architectural language, of the concepts of free access and circulation which under laid the library’s program.

It should be noted, however, that readers attach more importance to the quality of services, and above all to staff attention and support, rather than to comfort or aesthetic features in both libraries, at least at a conscious level. But, at SL, no particular ambiance feature was emphasized, positive or negatively, apart from some mention of quietness. With medium to low occupation rates, one frequent newspaper reader preferred SL to AG’s corresponding crowded area where he has to wait for his turn. Being “a building of importance” was the only aspect some emphasized, showing readers felt privileged to use SL’s library.

One negative statement was made about the deficient lighting in SL’s general reading room and about low temperatures in winter. Some users found the chairs in the general reading room uncomfortable. Homeless or poorly housed readers were much less demanding with regard to their comfort levels. In the authors’ view this is a reflection of their class patterns. SL’s special rooms also drew comment. Among the issues commented on were that some children felt frustrated in not being able to reach books on high shelves without adult help; a researcher felt constrained for being the only person occupying the attendant’s whole work-time in the rare documents room; frustration was also expressed by a reader who had been told, he stated, that special qualifications were required to access rare documents; persons wishing to have free-access to shelves in all rooms, including those behind wires in the general reading room also expressed frustration. Complaints about document delivery delays in the general reading room appeared to be triggered more by this mediated access and lack of autonomy rather than by the time it took to access documents. On their own it is likely that readers would probably take longer to retrieve documents, than having the documents brought to them.

It should also be noted that the sectionalized architectural treatment given to different areas not only reflects, but also reinforces, the departmentalized organization of SL. This approach is even denoted in nomenclature: the word “area” is used for “library”, as in the *children’s library* or the *audio library*, as if they were separate institutions. Apparently, scholars and researchers feel more “at home” than other readers. Public reading, for leisure or study, has been *patched* in an ambiguous coexistence into an institution which has heritage and conservation goals. The superiority of the pristine mission often surfaced during managerial discourse (Passos 2010).

Silence in the library is a frequently addressed theme in the literature (Bertrand 1994; Finlayson 2008; Miribel 2007; Mattern 2007) although empiri-

cally-based research is scarce. Noise was not an issue in either library. Several readers, mainly younger ones, even stated that they preferred to hear a soft murmur over absolute silence. Cell phones ringing are the main cause of occasional complaints at AG, while high heels tapping on the floor caused some discomfort in SL. Bertrand (1994) remarks that noise is, along with architectural and regulations devices, most efficiently regulated by social control, and that social class is an important point of reference, as demonstrated by the fact that popular sections are noisier than erudite ones. Mattern observes that “both enforced silence and freedom from noise represent forms of power”, associated with *habitus* (Bourdieu 1985), the socially learned, embodied predispositions that shape behavior.

But, and contrary to the major cliché and anecdotal theme (Sequeiros 2011) users, especially the most frequent ones and not the librarians, were the ones pressing for a quiet atmosphere in AG. A tacit code of conduct, a form of relational contract (Certeau 1984) is enacted, while no formal regulation is in place to regulate noise production. In particular, it should be noted that complaints about noncompliance (with respect to keeping noise levels low) had more to do with the ability to embody the adequate attitude, or the “estimated legitimate practices” (Bourdieu and Darbel 1966), than with noise production. This is how noise production should then be understood: as being deeply associated with behavior that is labeled as inappropriate or being out of one’s place or milieu, rather than being simply associated with physical and aural dimensions. As there are sensory, aesthetic, social and affective interrelated facets associated with this issue, the concept of a collectively woven *reading atmosphere* was proposed (Sequeiros 2011).

Reading is an “ubiquity” exercise, an “absent impertinence” (Rosolato qtd. in Certeau 1984), inserting a personal space into the physical one, and the rules of silent reading in public are to be learned and embodied from an early age. Additionally, reading in public requires concessions over a personally reserved space, as many readers in AG stated. “After half an hour of reading, I’m not here, and that is very motivating, interesting and useful to me” (blind reader, aged 58). Similarly, aural technology – MP3 or CD players in portable computers – is used by many, especially students, in AG, to reinforce privacy and create an extra, superimposed space (Bull 2006). The use of earphones also signals a wish not to be disturbed. This more relaxed form of work was not observed in SL where students are not so frequently seen, except if looking for old documents.

AG is quite accessible for persons with physical disabilities. In SL, both the visually and locomotion disabled need to be guided. SL’s sound library users usually use their home’s space for reading. By using these materials at home and not having to travel to the library these users are saved from negotiating obstacles in the city during any journey to the library. This personal, aural space provided by auditory reading – sound recordings reading, as opposed to

Braille reading – also has its own quality criteria: it should not be impeded by over-interpretation, according to a more demanding reader: “I think I’m entitled to be the one to interpret the text, and not to get an idea compromised by, say, the idea the speaker has on the work”, “I’m very much an adept of an open reading” (blind reader, aged 58). Adaptability in aural space, just as in architectural space, is appreciated.

With no Wi-Fi, or a fully automated catalog, some library patrons admitted that they went to SL for its unique collection only and that they would prefer to go somewhere else, should an alternative be available, even if it meant travelling to another city. Frequent complaints were heard about the price of and delays associated with digitization services. A reader also suggested that photographing old documents should be allowed. A strong and regular criticism concerned the need to consult several catalogs to find items. This took a lot of time and often resulted in one overlooking important works. It was often impossible to overcome this barrier without assistance from the staff. Despite these challenges, the staff was given a positive assessment by readers.

There was considerable variance in how different areas interacted (i.e. the reading room, the cafeteria and the auditoriums) in the two libraries. Nevertheless, and in spite of the functional difficulties, this area interaction should be encouraged through collective reading and debate, spontaneous or programmed community events and through workshops ((book) binding, editing, reading aloud, theatre, writing, researching, knowledge banks<sup>5</sup>, the Internet). Users might be involved in the proposal of ideas for activities and in their implementation. An example of a good idea – yet simple to implement – occurred during the summer of 2010 when small bookcases were placed near to the benches in the patio of SL. The books in these cases covered a variety of topics such as “Detective Stories”, “Comics” and “Travel”. These books became the focus of much borrowing, which would likely not have happened had these books remained dormant in their usual space.

### *A Place for Emotions*

References to AG’s openness have already been mentioned: tranquility, organization and the ability to concentrate were singled out as valued traits. Students also referred to a feeling of *togetherness* (Bakardjieva 2004) a form of “intrinsic order” (female student, aged 40) stimulating concentration: “all the other people are also doing the same as I am, so [this is useful] to soften things a little [laughing] if it’s something I don’t like to do” (male student, 34 years old). In SL, secondary school or undergraduate students are not very common, and readers do not have the opportunity to observe each other easily because of the enclosed spaces and rooms. As a consequence, neither togetherness nor other affective atmospheres are likely to emerge and, actually, no reference

---

5 Bank of Common Knowledge: <http://bankofcommons.org/Wiki>.

was made about either of these traits. While the construction of those atmospheres was a clear process in AG, personalization in SL appeared difficult to achieve. Affective qualification did not stand out, reflecting personal non-involvement, and merely utilitarian appropriations seemed to develop. Contrary to the criticism made to the architect, users may be too isolated, especially in the general reading room.

Being a reader may also be seen as a personal achievement to overcome barriers, as was the case of a blind woman in AG, the daughter of manual workers who worked hard to gain her education. Or, the Cape-Verdean emigrant woman, 43, who holding a “slave job”, “much sacrifice, little gain”, “shut my mouth because I needed it”, turned into “a victim of [her] own situation”; but she “didn’t lose courage”, pursuing another opportunity is “something to be proud [of]”. Returning to school to complete 6th grade, unable to afford a computer, she feels happy to be able to use AG’s free access PCs to do her homework.

#### *Personalization, Privacy, Surveillance*

The characteristics of spaces may be determinant in the processes of appropriation by users. While in SL no special case of space appropriation was observed, in AG some interesting ones were noted: the counter in the mezzanine was waist-level high and had removable shelves. However, in order to create a working area, readers removed the shelves, found some chairs and used the mezzanine counter as a workspace (Figure 17). Management accepted the appropriation of the space in this way and presently this space, for the public, is one of the most coveted work areas in the library.



Figure 17: Mezzanine appropriated as a work area

Other forms of space appropriation and tactics for place-making were observed in AG. Children are allowed to bring in toys and drawing materials, some tables have special coverings for these activities; a basin is nearby in

case hands need to be washed. Additional space is sometimes created and reserved by readers, particularly students, through the tricks of a silent competition scattering personal objects on adjacent tables signal that company is unwanted (Certeau 1984). Contrary to SL, students at AG have a *natural* and welcome presence, which sometimes is predominating in this interior landscape. Most likely their *serious* occupational status legitimizes their behavior, for example, when they take the initiative to require silence in their vicinity.

The variation in privacy requirements is seemingly tied to gender, social class and housing conditions: a young woman reported uneasiness for being stared at “by men in an unpleasant way”; the homeless reader did not mind if others peeped at his PC screen; a young couple with two babies living in a single room of a social-housing apartment with twelve relatives, laughed out loud at our question about a possible lack of privacy: the library was the only place where they had some degree of privacy compared to what they were accustomed (all AG cases). “The absence of intimacy is perhaps the best poverty indicator, even more than income”, Petit (2001) notes. “I need my private space and live amid a lot of people” (woman, living in a therapeutic community, 40 years old); to her, reading in AG “means finding the words for things, resting and reflecting ... [and it is] very pleasurable”. She further said “If I stopped leading the life I’m used to in public spaces, I would certainly lose a true pleasure and [the] real harmony I’m looking for.”

Unlike in SL, in AG the use of lockers is not compulsory and they remain mostly unused. Portable PCs may be made secure by lock chain cables which can be borrowed as there had been thefts in the past. Both libraries have anti-theft antennas installed. In AG, the presence of security guards and cameras – the latter unnoticed by users as a rule – was positively valued. The most socially or physically fragile – the man using crutches, the homeless person, the African immigrant – appreciated the security measures the most. AG is sensed as a safe space. In SL, however, the absence of guards was criticized by attendants who were assaulted by readers who had been caught stealing. Table surfaces in SL’s general reading room showed evidence of having been scratched on several occasions and the bathroom walls were also marked. Such behavior was not noticed in AG. One is forced to ask, does this happen in SL in spite of a more rigid atmosphere – or precisely because of it?

In SL readers tend not to use the Internet stations with screens that face the entry as they are too exposed. In AG Internet stations are better placed.

### *Conviviality*

Reading may not be as solitary a pursuit as it seems: in AG children are usually accompanied by relatives or teachers, adolescents and young adults enter in pairs or groups; recognizing familiar faces and “pleasant gazes” from regular readers (retired male reader) is appreciated. A library may be a place for conviviality. Loners also seem to find a library a pleasurable place as there are

many such persons there. *Proximity without propinquity*, in Park's expression (qtd. in Tonkiss 2005), is frequently sought in urban centers. "Above all, I like coming here a lot when I'm feeling down, I come in and it seems I reinvigorate! I cross that door and seems like home to me, as if it was my own family, I feel superbly well!" (homeless, former typographer, 34 years old). Readers tend to visit SL unaccompanied. Most seats in the general reading room are isolated by opaque glass shields. Relaxed interaction among readers was not observed there, while it occurred frequently in AG.



Figure 18: Having a chat between the stacks

Meeting socially diverse people seems to be appreciated, elderly people like watching young ones and children, the homeless reader declared that he enjoyed the social and age diversity, while watching "different faces every day". And so, the planned separation of children from adults, even if only in the common circulating areas, may be a bad idea for SL.

Conviviality, alongside with gratuity, was one main motivator for visits, according to some of the persons who were interviewed.

Given and Leckie (2003), in research on public libraries in Canada, stress that talking is one of the most common activities – "libraries may need to do more to encourage the view of [the] 'library as interactive place' versus [the] 'library as quiet space'".

The central role of libraries to promote conviviality in public spaces has been evoked in literature (Given and Leckie 2003; Leckie 2004; Audunson 2005; Illich 2005 [1971]; Audunson et al. 2007; Fisher et al. 2007; Aabø, Audunson and Vårheim 2010). The fact that libraries are places that are unassociated with consumption was stressed (Leckie and Hopkins 2002). Aabø, Audunson and Vårheim found, in two Norwegian libraries, that those who were in the low-income bracket exhibited this behavioral trait more than those who earned high-incomes (2010). Several researchers have found that in times of economic recession libraries tend to have more use because they are public



and free resources (Laidler 2008; Oblander 2008; Lizdas 2009; Bertot et al. 2009; ALA 2010).



Figure 19: Informal group of pre-teen visitors

Furthermore, and in association with industrialization, technological changes and the **urbanization** of urban and suburban space (Muñoz 2008), there has been a *loss of inhabiting and living know-how* (Cérézuelle 2007), in both the everyday use of private and public spaces. In urban and especially suburban environments, space is becoming undifferentiated and homogenized. The hypermarket, the church, the memorial monument, the sports centre and the library all spaces turn out to be confused with one another. Library use may contribute to recreate and update this lost traditional wisdom on inhabiting. To achieve this, it is proposed that people must be given a chance to learn how to inhabit by inhabiting.

### Public Space

Readers perceive libraries as places where public services are offered. This was particularly clear in AG, where openness and social diversity were also frequently pointed out as characteristics of such spaces, both by readers and staff. Several readers conceived a similarity between libraries and other public services, such as health services. In SL, the representations of public service were more tied to accessing ancient, rare documents or to using a heritage building. Being open to all was negatively viewed by some members of the staff, once they associated such open access to the occasional aggressive behavior that has already been discussed.

New power relations between public and private have been rendering public space increasingly less public; if access to public space cannot be prevented, it can still be devalued and made less civic through a culture of consumption (Pirodi 2002). Taipale analyzes the pluridimensionality of public space, which in-

cludes time, media, ICT and politics. He stresses that to be fully understandable “socio-economic and power-driven characteristics of each one of these layers of public space” should be analyzed (2006). As Naomi Klein (2003) insightfully puts it or the library as space has distinctive values: “knowledge (as opposed to mere information gathering); public space (as opposed to commercial or private space) and sharing (as opposed to buying and selling)”. Threatened by profit, privatization and corporate globalization, libraries should devote themselves to connectedness and openness by resisting privatization, by conversing with their communities, being transparent and, when possible, being democratic.

Libraries may also be considered as a prototype of an “open institution” (Ilich 2005) by facilitating human activities and the creation of new relationships among people and their surroundings, which constitute the true sources of education. In the context of an increasing commodification of diverse aspects of life, providing a public place for reading, knowledge dissemination and encounter among peers is also a contribution to The Commons<sup>6</sup> by investing them with physical and symbolic content (*ibid*).

Just a few readers in AG declared to debate with others about what they had been reading, although there was interest in discussing two interesting topics: a recent report in the newspapers about an increase in the price of bread; and, a search for information on a municipal market which was due to be converted into a shopping-centre. This proposal had been the cause of protests. In SL, no similar cases were observed.

Libraries as places for fostering the Habermasian public sphere of opinion and sustaining debate is advanced by Alstad and Curry (2003), who propose a set of measures to implement the use of libraries in a way that they become a part of the “sphere of non-governmental opinion-making” (Habermas 1998). Buschman elaborates on why the concept fits into library reading (2008). He claims that libraries “house and further rational discourse through the organization of collections coupled with the principle of unfettered information access”. Also that libraries enact “the principle of critique and rational argumentation” through the “balanced collection”, preservation and “furthering inclusion” through “intellectual diversity”. Libraries allow for the “verification of claims to authority” and so create a basis for intellectual debate. Buschman finally stated that the policies and practices of libraries “make access to information and education more widely and universally available”.

The field enacts the principle of critique and rational argumentation through the commitment to balanced collections, preserving them over time,

---

6 The Commons are resources shared and cared for within a community. They may include natural elements such as water or grazing land, or cultural goods, such as music and art and public goods. Public libraries may fit into these last two categories.

and furthering inclusions through active attempts to make collections and resources reflect historical and current intellectual diversity.

Eigenbrodt associates the realization of these objectives with informational participation (2008a). As a public service, under the scrutiny of public opinion for ethical issues, libraries may provide an important area for this public sphere, especially if a participatory approach is developed, according to Fraser's view (1992). Such an arena, not restricted to opinion but also directed to "formation and enactment for social identities", fosters decision-making thus allowing for "strong publics" to emerge.

### Differences and Inequalities

Not surprisingly, the most economically fragile were the persons who stressed the advantages of a public free service. They expressed concern over the privatization wave that was invading the country. But they also appeared particularly well positioned to reflect upon multiple issues, coming from the "vantage points of the subjugated" (Haraway 1988).

One retired female user in AG admittedly resented the presence of "those social exceptions" – homeless readers – under the unconfirmed pretext that they produced "lots of noise". On the other hand, another declared:

"sometimes there are some people here who don't know how 'to be' [in such a place], well, we know that it's the same everywhere, but then you forgive them, you accept them, they also have the right to be here ..." (a male retired reader in AG, 72, a former bank clerk).

Some members of staff declared that the homeless sometimes got into arguments over which films to watch on the TV sets. This led to the removal of one of the sets. These persons were also said to use the sofas for sleeping and the bathrooms for their personal hygiene; during this research several persons were observed taking a nap, mostly after lunch and no one woke them up. In AG, an often told story concerned a conflict involving a gun and eastern immigrants, proved to be nothing more than an urban myth. As urban figures, the homeless may serve as scapegoats for subjective insecurity feelings of others. This tends to amplify any real insecurity situations that may exist (Fernandes 2003).

The only homeless person who was observed in SL did not use the reading rooms, he just went into the library for the cheaper coffee that was available in the atrium's vending machine or to use the toilets – the park has none. In AG, some individuals, known to be sex workers were observed using that library. Their status was identified by staff who had previously worked in SL. However, they did not use that neighboring library (SL). While in AG "marginal" readers are tolerated, although not openly accepted, in SL their presence ap-

pears to be more overtly disapproved. Whether this has to do with the imposing nature of the building, verbal admonishments, social or corporal *hexis*<sup>7</sup> is a matter for further research.

In terms of social class, most libraries in Portugal (Freitas, Casanova and Alves 1997; Fortuna et al. 1999) are predominantly used by students, intellectuals or skilled professionals. Manual work is not even listed in the classification of jobs used to register readers in the libraries in which this research was conducted. Among the interviewees, there were almost no manual, unskilled workers and there were none from the upper-class.

Frequency of use seems balanced between the sexes in AG; however, in SL, male visitors are slightly more in number. An assumption that libraries are feminized spaces was not supported by the observation and usage statistics were not provided for this research. There is the possibility that males may outnumber females as registered readers, but not as visitors. On the contrary, a clear gender imbalance was perceived among middle-aged and elderly women and their literacy rate is known to be lower than that of their male peers. In spite of their lower literacy rates, the almost complete absence of women in these age groups from the library is very likely due to their domestic responsibilities and women are known to have less time for leisure. It can also be said that SL has fewer young visitors, leading in general, to less social diversity.

Secondary school or undergraduate students may not feel welcome in SL, and this is probably more due to their status than their age: “a bunch of young people, [the staff] gets a bad impression from us. By the looks! Although we’re students” (shared opinion in a group of three, 18 to 20 year-old boys). Informal conversations with other young students and an architect produced similar impressions. Researchers, on the other hand, are treated warmly, which is in keeping with the staff’s representation of this library as being a place of heritage. Evidence of ethnic segregation was not apparent nor reported during interviews. Accessibility to SL’s facilities requires improvement. On the other hand, its audio library has pioneered a quality service which is also provided to readers living abroad.

---

7 Bodily *hexis* is a type of disposition, “a basic dimension of the sense of social orientation, is a practical way of experiencing and expressing one’s own sense of social value. One’s relationship to the social world and to one’s proper place in it is never more clearly expressed than in the space and time one feels entitled to take from others; more precisely, in the space one claims with one’s body in physical space, through a bearing and gestures that are self-assured or reserved, expansive or constricted (‘presence’ or ‘insignificance’) and with one’s speech in time, through the interaction time one appropriates and the self-assured or aggressive, careless or unconscious way one appropriates it” (Bourdieu 1979).

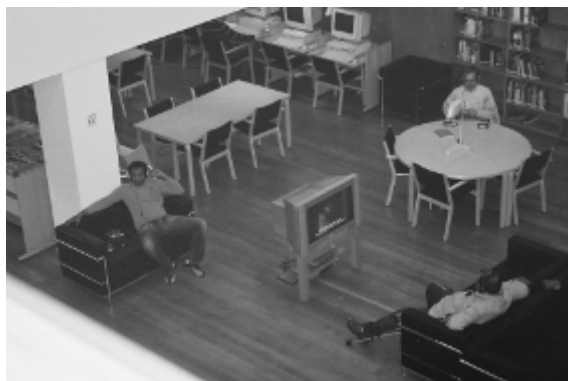


Figure 20: Multimedia area, relaxed postures

In AG, a hierarchy of spaces really emerged, not tied to floors but to documents physical support for example, less educated readers preferred the multimedia area: “upstairs is more for reading, down here is more for leisure, to be more relaxed” (immigrant truck driver of African ethnicity in his 40’s). Body postures may be clear markers of a corporal *hexis* associated with social class (Bourdieu 1985). One easily observes that attitudes in this space are much more relaxed.

## Public Reader Profiles

As a way of shedding light on reader’s practices, their use and appropriation of library resources and space, the relationships they create with others while reading, data was collected and interpreted through a mix of tools: ethnographic observation, in depth interviews, photography and children’s drawings. Common traits emerged and readers were grouped into different profiles. This same methodology was used in SL (Sequeiros 2010). While researching AG’s insertion within a garden, the suggestive power of metaphors (Haraway 1988) as a way of adding meaning to the collected information emerged.

### Bees

The aim of *Occupational users* or bees is to keep busy in useful ways, benefiting from an ambiance that encourages study and the availability of free resources – “The day goes by more quickly, it’s more productive” (female, 28, unemployed, AG). They search for precise topics or apply for jobs; they have organized schedules, even if they are unemployed, they are *working* in the library. Their vocabulary avoids words such as unemployed or retired, an alternative work ethic seems to frame their practices. Being highly qualified, a main

motivator for visits to the library is Internet use. Some of these readers bring their laptops and wear earphones. Another frequent motivation for persons in this group is to read the newspaper. They use table surfaces to read and write as well as to use their laptops and usually they seek a space near to a power supply. In AG, they scatter personal belongings on the tables. In SL, if they are regular users, they will probably ask for a specific table in the general reading room instead of an assigned one. The regions (Certeau 1984) they use are similar to those used by *students* and *scholars*.

### Ants

The *Student users*, or ants come to the library frequently in groups or pairs, mostly after lunch. Some are still studying for their undergraduate degrees while others are writing their Master's theses. Their ages range from twenty to the late thirties. In AG, the togetherness that is facilitated by the library which attracts them. Their use of library resources is mainly instrumental, that is basic, tied to the instrumental use of information resources. They usually bring their handbooks and on occasion their laptops. Mobile audio may be used to enhance privacy. The library's bibliographic resources, unrelated to study, are not used by persons in this group. They prefer to use individual tables and Internet access points. They sometimes use tricks to create extra space. Usually they produce some background noise which they prefer to work with vis-à-vis complete silence. In SL, as previously reported, students are not often seen unless they are researching the old collection.

### Owls

The *Scholar readers*, or owls devote their time to researching topics of their choice, very likely Local History. They are informal learners, study autonomously and they have flexible calendars. They are likely to be men who are retired and frequent users of the library. Although they are not many in number, they keep their presence discrete. Their activities were mainly note-taking and writing essays on pads. They are highly regarded by staff. Other library users may follow their activities with curiosity and respect. In both AG and SL, some *scholar readers* occasionally interact with younger people, for example, some elder readers attentively followed the activities of the younger readers, occasionally spoke to them and offered support.

### Cats

The *Informed readers*, or cats make a point of keeping up with the news by reading newspapers or magazines. The group is almost exclusively male and the elderly predominate. No social interaction with other users or staff was ob-

served. They tend to be reserved – several declined to be interviewed. Unlike the others, cats tend to stick to their special area. Internet use is an exception. In AG they occupy the press corner sofas, whereas in SL they tend to gather around the first tables in the free-access room. Their attitudes are not as relaxed as that which exists in AG’s multimedia area. Sometimes they have to wait their turn to read their favorite titles. They exhibit an instrumental reading mode. Yet, instrumentality may mean something other than just reading: “maybe a few weeks go by and I don’t memorize, at my age, I don’t feel like wearing out my head any more”. In AG, a male reader in his 70s was of the opinion that reading is good for one along with the exercise that one gets from walking to the library. In SL, a 49 year old male African immigrant who cannot afford to buy a computer also shows a special communicational trait: besides reading periodicals, he uses the Internet to stay in touch with his family in Angola, to read sports news and to attend to several personal matters, from taxes to social security.

### Sparrows

The *Recreational readers* who were interviewed were mainly children. The exception was an international truck driver who is an African immigrant in his 40s. He uses the multimedia area in AG, which, he feels, is “more for leisure”. He used to visit libraries in several European cities where he lived. His free days in between travels are spent at the library where he watches DVDs and YouTube, listens to music, reads magazines and borrows books. They all go to the library mainly for recreational purposes, moving and reading in an unworried fashion.

All the children interviewed in AG, between ages 4 and 8, are cumulative readers<sup>8</sup>, sometimes meeting friends and joining other children in games, or visiting the library with their teachers. All of these children also have books at home. The garden is also a destination during their visits. They move freely, sometimes they run. The Story Hour room gets crowded during sessions, and as the room’s ventilation is not adequate, it was observed that relatives and children eventually used books and papers as fans, but nobody left. Almost all of the children drew computers – some even drew only computers, when asked to depict “what a library is”. They sit on chairs or cushions, or just lie on the floor. They know this area has some restrictions: for example they are not allowed to scribble on books nor climb on tables.

### Butterflies

*Strolling readers*, or butterflies spend their time strolling around with no specific activity in mind, occasionally picking up some item – resembling Wirth’s

---

8 These are users who usually read diverse publications and in different physical supports.

(1964) urban strollers. They generally do not interact with others. While walking they glance at newspapers, magazines, records, Internet pages and books. Less qualified than some other groups of library users (secondary school or less), these readers are manual workers, people who are retired and unemployed persons. They cover a range of ages, some are children. Strolling readers mostly use the multimedia area, couches and circulation spaces. The homeless reader comes one or two hours every day, following his street companions advice: “you watch a movie and when you go out you feel quite another person”! This is a closed space where he feels safe, away from those street “complications”.

A young couple, both 22, pushing two baby prams also fit into this group as well. Their educational level is below the minimum standard; they live in a single room, in a crowded apartment. They say that they get some privacy in the library. During the observation the mother requested a user card. The plan is for the family (the parents and the two children) to visit the library every Saturday. The parents search for information on baby care, baby games and send SMS’s. The mother does not usually read, except stories to her babies. The father prefers to view multimedia items. As a wide, “clean”, “ordered”, “quiet” space the library is seen as a better space for their family than a cyber-café.

It should be noted that no strolling readers were found in SL. Their departmentalized spatial arrangement and heritage-oriented management does not seem to allow this type of space appropriation.

## Residents

Both libraries have their *habitués* (regulars), a user subgroup composed mostly of scholars and occupational readers, nicknamed “residents” by the staff. As frequent users, they have favored places, preferring the mezzanine in AG, from where visual control over the whole place is possible; in SL, favorite places are the first round table in the free-access room or the lateral ones in the general reading room. They sometimes use the complaints book, a resource scarcely known to other users.

“This is their second home”, “they get accustomed to us and we to them”, this is how a very attentive female librarian explains her special connection to this group in AG. Some elder male readers, if they were noticeably absent, may even benefit from her special interest through an inquiry about their health. An anecdotal but, paradoxically meaningful episode was shared with the researchers who were told by the staff that an elderly male reader once knocked at the staff entrance door carrying his own sofa and asked to have it placed beside his usual table.

The frequency and duration of visits, this competition for personal attention, which they feel they are entitled to, all converge to allow the users



## Comparative Table

Space provided		SL	AG
basic concepts		implicit: heritage (architecture and holdings); control; library as a „temple of wisdom“?	interactive, open library
		preservation, shelving	publicness with diversity
		remediation diachronic additions	unitary project
programme (function)	the core is...	controlled reading rooms (free-access room as secondary)	free-access
	functioning	rigid, highly regulated	lightly regulated
	access of persons and objects	heavily controlled	free access
	access to contents	hindered, regulated	easy, direct
	interaction among areas/people	hindered	easy
structure	urban insertion	no relation library/garden nor library/neighbourhood	inserted in a public space (but possibilities only partially explored)
		diachronical and departmental juxtaposition; 'libraries' inside a library with diverse design criteria	homogeneous spatial and constructive conception; collective space with individualized places offering different scales and inter-relations
	display	fixed	adaptability-flexibility in uses and in time
	visibility over whole space/room	no	yes
	wi-fi access	no	yes
	security guards and cameras	no	yes
	anti-theft antennas	yes	yes
	mandatory deposit of personal belongings	yes	no
	accessibility design	no	yes
	identities	fragmentary	unitary
form	design and materials according to...	institutional rank, historical and symbolic values	readers' comfort and enjoyment, and urban insertion
	portraits convey...	authority; respect	informality; artistic contribution

Space appropriated			
appropriation (in general)	not afforded	afforded	
collective reading atmosphere	multifaceted, including affective dimension	plain, mainly instrumental	
affective qualities	frequent lack of affective relation to space; tranquility	positive relation to space; tranquility, organization, concentration, togetherness	
outstanding qualities	heritage building	luminous; transparent	
social interaction	not common	frequent	
adults reading accompanied	no	yes	
public space conceptualization associated with...	public heritage building	public service; social diversity	
public sphere	no activity observed	some activity	
activities propitiated	no strolling reading	strolling reading	
gender issues:	elder women absence	yes	yes
	in-house reading	slight male predominance	balance men/women
age issues	young-adult students feel unwellcome	no	
class issues:	manual workers	diminute presence	diminute presence
	upper-class presence	not found	not found
	„marginals” acceptance	no	nuanced

referred to as residents to serve as a pressure group. On the other hand, the researchers overheard comments by security personnel in AG who judged the residents as “not doing a thing in life, besides going there”. We were surprised to notice that negative judgments about reading as leisure even surfaced with a library.

It should be noted that similar profiles have been identified in another city’s library (Rodrigues 2007). Rodrigues’ approach, however, did not take space use as a profile dimension. The inclusion of space allowed for a richer characterization of readers. It also unveiled additional forms of use in terms of space appropriation, namely that of *butterflies*, not previously documented, which would have remained invisible, were this dimension not included.

## Conclusions and Recommendations

This chapter has analyzed how readers, through their activities and relationships in two different spaces with different architectural and social properties, interact with each space to shape their reading practices. The chapter has also looked at how the use of space plays a role in defining user profiles.

Methodologically, the inclusion of spatial social relations in the research design was revealed to be fundamental for a comprehensive understanding of these interactions. It allowed the unveiling of a previously undocumented reading profile, that of strollers or butterflies. The research also revealed, through associating reading profiles and social inequalities with areas used in AG, how different regions may be created through the appropriation of different spaces through interaction. It should be noted that these regions do not necessarily coincide with the organization of library areas according to documents physical support. This methodology allowed the researchers to simultaneously look at readers as library and architecture users and to work together from two different discipline perspectives.

Different programs gave way to different architectural achievements and also to different usage experiences. Departing from the space provided, space was later appropriated, and social space was produced through the social relations performed while reading. Historically, library building typologies have responded more to institutional and LIS functional requirements (institution or object-centered projects, as in SL) than to readers requirements (user-centered projects, as in AG). The different user categories which were described reveal a multiplicity of unsuspected needs and relationships between users; between users and staff; and, between users and facilities. An example is the creation of reading places around AG's mezzanine which was not anticipated by the architect, the librarians or either of the researchers as a desirable space which would be appropriated for library use by readers.

Concepts such as openness and "publicness" may be translated into bricks and mortar, and then into "transparent" and "open" reading atmospheres, just as the absence of togetherness and the impossibility of meaningful appropriations into "isolated" and "de-personalized" atmospheres, or "control" and "heritage reverence" to "constrained" ones. The impact of such translations stresses the need to keep the government and its representatives accountable for clear democratic cultural policies for public libraries and for the transposition of such policies into the architectural briefs. The absence of clear concepts leaves all options in the hands of the architectural teams, who are not supposed to be familiar with readers' needs.

Buildings should provide enough differentiation and flexibility for personal or group appropriation of both space and resources, for readers with different expectations, ages, socio-cultural backgrounds and different skills.

Space should provide both privacy and togetherness, a sense of order, here understood as a cultural and spatial reference, within a context where house and work spaces are usually encumbered with objects and noise. Space should also allow group work, social exchange and collective knowledge creation. Scale, spatiality, lighting, materials and colors should all contribute to build a warm atmosphere and a cultured one (“buildings of importance”), through both balance and harmony. The possibility of “coming in and out” at one’s convenience is a clear advantage and existing surveillance should not curtail this. Furthermore, the research suggests that the more freely built, conviviality-oriented and tranquil a reading atmosphere is, the larger will be the impact and variety of user actions in shaping a space. A massive use of ICT, both for organizational and management purposes (e.g. catalogs) as well as for readers use presents a challenge that architects must be aware of in order to develop adequate responses so that even when new forms of use, not yet acknowledged or identified, are being propitiated technologically.

Another major challenge is finding formal contemporary expressions which consistently avoid “urbanalización”. Fostering the learning of how to use and understand these new spaces by users who may experience some difficulties and so feel disempowered that they are unable to find the means to develop themselves within these spaces also needs to be considered.

With regard to functional requirements, statements from the readers show that there are unexpected needs which go beyond the traditional concepts of a library. These needs are distant from the reductive “historical archive in the Internet age”. These practices may only be understood in the context of the city, housing and present-day conditions of life. The library is (increasingly) a civic centre, and so no cultural or leisure activities should be ignored, a priori. Readers value free public resources such as libraries and most deprived users are, as might be anticipated, the most sensitive to the economic advantages that such spaces provide.

The two cases that have been studied demonstrate how different visions of what a public library is built for reflect on the space provided as well as allowing for or hindering users’ appropriations. These spaces, along with different management policies, shape readers’ practices and behaviors, contributing to the production of reading atmospheres with dissimilar and even opposing features.

The wealth of collections, the ease of access to facilities – from transportation, opening hours, the absence of architectural barriers, staff support, spatial conception – from light design to choice of materials for building and furnishings – representations of the use of a “building of importance” as a privilege and the provision of attractive reading environments, all of these contribute to a reinforcement of the Commons. Developing the interaction between libraries and their immediate surroundings, which appeared under-explored in both cases, would widen the range of possibilities of library usage by the ability to

enjoy nature might also contribute to these Commons. Very different modes of use are enacted by readers, along with different modes of occupation – permanence, migration or occasional visits. The interaction among different areas for reading and other purpose spaces should also promote a comprehensive use of both buildings and areas of urban insertion. All of this calls for the provision of open, diversified, non-directive, democratic spaces to accommodate all users and their needs. Allowing for readers' appropriation and transformation, a reasonable balancing of the issues of rights and legitimacy with preservation and control, propitiating plural affective atmospheres are among the things that could enhance spatial experience and social life. Furthermore, publicly available services, expertise as well as material and informational resources should be used in rational and sustainable ways. These could set exemplary cases of providing public spaces for readers as opposed to current trends of individualization which invade and disrupt our daily lives. From a social justice standpoint, the participation of readers in design and use issues should be encouraged, from public debates to having representation on managerial advisory bodies. Their views, as final users, should be taken into account in the design of architectural briefs as well as from the practical perspective of efficiency and adequacy in space use.

Reading a space may not be a conscious, reflected process, but the way one enacts spatial social relations provides clues on tacit use rules, on existing social atmospheres. Clues are picked up from body postures and behaviors as well as from simple and adaptable or imposing and rigid designs. It may be difficult for users to comment on architectural features, but their responses to such spaces are eventually reflected in their description and evaluation of the reading atmospheres. These atmospheres may be read as welcoming or, on the contrary, as keeping some at large by symbolically signaling whether they fit in or not. Embodied rules of space which foster social diversity should be a matter of concern in the same way as formal rules of use. One of the TV sets in AG might play films from a programmed schedule, occasionally incorporating users' suggestions. If all the equipment is put to use, more films could be viewed and conflicts over individual appropriations could be reduced.

Conviviality emerged as one of the most cherished dimensions of a reading atmosphere, according to reader's statements. Social class, age, ethnicity or gender diversity should be encouraged as an ethical principle for the benefit of these groups themselves but also for others. Such an environment would also allow the mingling and mixing of all kinds of people, as the adjective public implies and effective democratic policies demand. Needs for privacy or personal place making should not be mistaken for segregation, totally isolating areas or entrances – such as young readers' or reading seats. Affective bonding may be hindered and, after all, conviviality is one of the main reasons people go to libraries, even for those who can afford similar resources at home.

Further research should be undertaken to understand how architectural design may be developed – along with managerial specific requirements – to accomplish the partially unfulfilled aim of providing a place for those who have no books and no reading habits.

## Acknowledgements

We wish to thank Eva Lima (EL) and Ricardo Sequeiros Coelho (RSC) for allowing the use of their pictures. Other illustrations were made by the authors.

## References

- Aabø, S., Audunson, R. and Vårheim, A. “How do public libraries function as meeting places?” *Library & Information Science Research*, 32.1 (2010): 16-26.
- American Library Association. “New survey shows U.S. public libraries in financial jeopardy: cuts reduce hours, staffing at thousands of libraries as patron demand escalates.” 14 Jan. 2010.  
[www.ala.org/ala/newspresscenter/news/pressreleases2010/january2010/trendstudy\\_ors.cfm](http://www.ala.org/ala/newspresscenter/news/pressreleases2010/january2010/trendstudy_ors.cfm) [Mar. 2011].
- Alstad, C. and Curry, A. “Public space, public discourse, and public libraries.” *LIBRES*, 13.1 2003. <http://libres.curtin.edu.au/libres13n1/index.htm> [Mar. 2011].
- Audunson, R. “The public library as a meeting-place in a multicultural and digital context: The necessity of low-intensive meeting-places.” *Journal of Documentation*, 61.3 (2005): 429-441.
- Audunson, R., et al. “Public libraries, social capital and low intensive meeting places.” *Information Research*, 12.4 (2007): 1-13.
- Bakardjieva, M. “Virtual togetherness: an everyday life perspective.” Feenberg, A. and Barney, D., eds. *Community in the Digital Age: Philosophy and Practice*. Lanham: Rowman and Littlefield, 2004.
- Bertot, J. C., et al. “Public libraries and the Internet 2008-2009: issues, implications, and challenges.” *First Monday*, 14.11 (2 Nov. 2009).  
<http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/rt/printerFriendly/2700/2351> [Mar. 2011].
- Bertrand, A. M. “Cris et chuchotements.” *Bulletin des Bibliothèques de France*, 39. (1994): 8-13.
- Biblioteca Pública Municipal do Porto. *Biblioteca Pública Municipal do Porto: Documentos para a sua História*. Porto: Imprensa Portuguesa, 1933.
- . *Biblioteca Pública Municipal do Porto: Exposição no 150º Aniversário da sua Fundação*. Porto: BPMP, 1984.
- Blumer, H. *Symbolic Interactionism*. Englewood Cliffs: Prentice-Hall, 1969.
- Bourdieu, P. *Distinction: A Social Critique of the Judgment of Taste*, trans. Richard Nice. Cambridge, MA: Harvard University Press, 1984, 474
- . “The genesis of the concepts of habitus and field.” *Theories and Perspectives*, 2.2 (1985): 11-24.

- Bourdieu, P. and Darbel, A. *L'Amour de L'Art: Les Musées et Leur Public*. Paris: Les Éditions de Minuit, 1966.
- Bruno, S. "A bibliotheca publica do Porto: I sua fundação e instalação." *Serões: 2ª série*, 3.16 (1906): 200-300.
- Bull, M. "Investigating the culture of mobile listening: from Walkman to iPod." Bull, M., O'Hara, K. and Brown, B., eds. *Consuming Music Together: Social and Collaborative Aspects of Music Consumption Technologies*. Dordrecht: Springer, 2006.
- Burawoy, M. "The extended case method." *Sociological Theory*, 16.1 (1998): 4-33.
- Buschman, J. "On Libraries and the Public Sphere." *Library Philosophy and Practice*, 7.2 (2008): 1-9.
- Cérézuelle, D. *Crise du Savoir Habiter, Exclusion Sociale et Accompagnement à L'autoréhabilitation du Lodgement*. Paris: IDDRI, 2007.  
[www.iddri.org/Publications/Collections/Idees-pour-le-debat/id\\_0705\\_cerezuelle\\_svrfairelocx.pdf](http://www.iddri.org/Publications/Collections/Idees-pour-le-debat/id_0705_cerezuelle_svrfairelocx.pdf) [Aug. 2010].
- Certeau, M. de. *The Practice of Everyday Life*. Berkeley: U of California P, 1984.
- Donmoyer, R. "Generalizability and the single case study." Gomm, R., Hammersley M. and Foster, P., eds. *Case Study Method: Key Issues, Key Texts*. London: Sage, 2000.
- Eder, D. and Fingerson, L. "Interviewing children and adolescents." Gubrium, J. F. and James, A., eds. *Handbook of Interview Research: Context and Method*. Thousand Oaks: Sage, 2002.
- Eigenbrodt, O. "Designing Library Facilities for Everyone? Providing Space for Informational Participation." Hauke, E. A. Petra, ed. *Providing Access to Information for Everyone*. 16th BOBCATSSS Symposium 2008, Zadar, Croatia. Berlin: Humboldt Universität, 2008.
- . "Societal Places: The constitution of library space through activity." World Library and Information Congress, 74th IFLA General Conference and Council, Québec. Proceedings. The Hague: IFLA, 2008a.
- Fernandes, L. "A imagem predatória da cidade." Cordeiro, G. Í., Baptista, L. V. and Costa, A. F. da, eds. *Etnografias Urbanas*. Oeiras: Celta, 2003.
- Finlayson, A. "No shushing in this library." *San Diego Reader*, 18 June 2008.
- Fisher, K. E., et al. "Seattle Public Library as place: reconceptualizing space, community, and information at the Central Library." Buschman, J. E. and Leckie, G. J., eds. *The Library as Place*. Westport, CT: Libraries Unlimited, 2007.
- Fortuna, C., et al. *Sobre a Leitura*. Lisboa: IPLB, Observatório das Actividades Culturais, 1999.
- Fraser, N. "Rethinking the Public Sphere: a contribution to the critique of actually existing democracy." Calhoun, C., ed. *Habermas and the Public Sphere*. Cambridge, MA: MIT Press, 1992.
- Freitas, E. D., Casanova, J. L. and Alves, N. D. A. *Hábitos de Leitura: Um Inquérito à População Portuguesa*. Lisboa: Dom Quixote, 1997.
- Geertz, C. C. *The Interpretation of Cultures*. London: Hutchinson, 1975.
- Given, L.M. and Leckie, G.J. "'Sweeping' the library: mapping the social activity space of the public library 1." *Library and Information Science Research*, 25 (2003): 365-385.
- Habermas, Jürgen. *The Structural Transformation of the Public Sphere*. Cambridge (MA): MIT Press. 1989.
- Haraway, D. "A manifesto for cyborgs: science, technology and socialist feminism in the 1980s." Haraway, D., et al. *Simians, Cyborgs and Women: The Reinvention of Nature*. New York: Routledge, 1991.

- . “Situated knowledges: the science question in feminism and the privilege of partial perspective.” *Feminist Studies*, 14.3 (1988): 575-599.
- Illich, I. “Une société sans école.” *Oeuvres Complètes* 1. Paris: Fayard, 2005.
- Klein, N. “Why Being a Librarian is a Radical Choice.” *Dissident Voice*, 15 July 2003. [www.dissidentvoice.org/Articles7/Klein\\_Librarian.htm](http://www.dissidentvoice.org/Articles7/Klein_Librarian.htm) [Mar. 2011].
- Kvale, S. *Interviews: An Introduction to Qualitative Research Interviewing*. Thousand Oaks: Sage, 1996.
- Laidler, J. “Library use rises as economy falls.” *The Boston Globe*, 16 Oct. 2008. [www.boston.com/news/local/articles/2008/10/16/library\\_use\\_rises\\_as\\_economy\\_falls](http://www.boston.com/news/local/articles/2008/10/16/library_use_rises_as_economy_falls) [Mar. 2011].
- Leckie, G. J. “Three perspectives on libraries as public space.” *Feliciter*, 6 (2004): 223-236.
- Leckie, G. and Hopkins, J. “The public place of central libraries: findings from Toronto and Vancouver.” *Library Quarterly*, 72.5 (2002): 326–372.
- Lefèbvre, H. *The Production of Space*. Oxford: Blackwell, 1991.
- Lizdas, W. J. “Libraries’ many benefits rediscovered in hard economic times.” *JSOnline*, 21 Jan. 1991. [www.jsonline.com/news/38082709.html](http://www.jsonline.com/news/38082709.html) [Mar. 2011].
- Mattern, S. “Resonant texts: Sounds of the American public library.” *Society*, 2.3 (2007): 277-302.
- Miribel, M. D. “Chut! Vous faites trop de bruit!: quel silence en bibliothèque aujourd’hui?” *Bulletin des Bibliothèques de France*, 52.4 (2007): 76-83.
- Muñoz, F. *UrBANALización: Paisajes Comunes, Lugares Globales*. Barcelona: Gili, 2008.
- Oblander, T. “Economy gets people out of the house, into libraries.” *The Houston Chronicle*. 2 Aug. 2008. [www.chron.com/disp/story.mpl/nation/5920609.html](http://www.chron.com/disp/story.mpl/nation/5920609.html) [Mar. 2011].
- Passos, S. M. *Depois de Pinakes*. Master’s Thesis. Porto: Universidade do Porto, 2010.
- Pereira, V. B. *Classes e Cultura de Classes*. Porto: Afrontamento, 2005.
- . “Distinction comes to Porto.” *Practicing Pierre Bourdieu Conference, Panel VI. At Ground Level: Physical Space and Lived Social Space*. Ann Arbor: U of Michigan. 2006. <http://repositorio-aberto.up.pt/handle/10216/14184> [Mar. 2011].
- Petit, M. *Lecturas*. Mexico: Fondo de Cultura Económica, 2001.
- Pirodi, E. “Uso sociale dello spazio pubblico nella città contemporanea.” Mattogno, C. *Idee di spazio, lo spazio nelle idee*. Milano: Franco Angeli, 2002.
- Rodrigues, E. A. “A biblioteca e os seus públicos: uma proposta interpretativa.” *Sociologia, Problemas e Práticas*, 53 (2007): 135-157.
- Santos, C. dos. “O Porto e a instrução pública: a Academia Real da Marinha e Comércio (1803-1837).” *Estudos em Homenagem ao Professor Doutor José Marques, 1*. 2006. <http://repositorio-aberto.up.pt/handle/10216/8971> [Mar. 2011].
- Seale, C., ed. *Researching Society and Culture*. 2nd ed. London: Sage, 2004.
- Sequeiros, P. “User profiles: from a qualitative case study approach to providing a better service.” Katsirikou, A. and Skiadas, C. H., eds. *Qualitative and Quantitative Methods in Libraries: Theory and Applications*. Proceedings of the International Conference on QQML 2009. Singapore: World Scientific Publishing, 2010.
- . “The social weaving of a reading atmosphere.” *Journal of Librarianship and Information Science*, (2011). In press.
- Taipale, K. “From Piazza Navona to Google or, from local public space to global public sphere.” Paper presented at Public Spheres and Their Boundaries Conference. University of Tampere. 2006. [www.uta.fi/laitokset/tacs/papers0506/Paper\\_PUBLIC\\_SPACE\\_UTA\\_conference\\_May\\_06\\_taipale.pdf](http://www.uta.fi/laitokset/tacs/papers0506/Paper_PUBLIC_SPACE_UTA_conference_May_06_taipale.pdf) [Mar. 2011].



Tonkiss, F. *Space, the City and Social Theory: Social Relations and Urban Forms*. Cambridge, MA.: Polity, 2005.

Wirth, L. "Urbanism as a way of life." Reiss, J. A. J., ed. *On Cities and Social Life*. Chicago: U Chicago P, 1964.

# University Library Premises: The Evaluation of Customer Satisfaction and Usage

Anne Lehto

*Head of Department*

Leena Toivonen

*Deputy Manager*

Mirja Iivonen

*Chief Librarian*

*Tampere University Library, Finland*

## Introduction

Today, university libraries face a difficult situation as they are expected to improve their performance despite circumstances of limited budgets and uncertainty. The rapid growth of electronic materials and reduction in printed materials may be used by decision makers as an argument to limit resource allocation for physical library premises. Therefore, university libraries are challenged to demonstrate the impact of their premises as space and place to the community they serve. Accordingly, it is of great interest whether an academic library as a place has relevance and how space is best used.

Library buildings have always been the center of the campus and the most important public learning space at the university. Today, while researchers use library resources more and more via a network in their offices, university libraries act as a students' workroom and serve as a place to meet and study. This emphasizes the importance of a modern and well-equipped library premises on campus. Further, university libraries act as a gateway to e-learning, which requires functional computers and local access to a networked environment.

In this chapter, Tampere University Library (also referred to as Tampere), a big, multidisciplinary Finnish academic library, is used as a case study to describe the use and importance of library premises. A limitation of this chapter is that it is a case study of a single university library. Nevertheless, it is possible that useful information can be gleaned from the study of a modern and well-equipped library premises on a campus.

At Tampere, multiple methods were used to gain information regarding how customers' use library premises. User satisfaction and expectations have been regularly tracked through service quality surveys, including questions re-

lating to the library's premises. Monitoring has also been done to get evidence on the use and importance of library as space and place. This chapter reports on some results that have been achieved. Among the issues considered were:

- How important library premises are to library customers;
- Customer satisfaction with the library's premises;
- What actually happens in the library;
- What library users actually do in the library; and,
- How customers use library space.

Finally, the findings will be discussed in light of other discussions about the library as space and place as reported in the library literature.

## Background: University Library as Space and Place

At the beginning of the 21st century, the planning of new library buildings and the renovation of the old ones have become challenging issues. Historically, library buildings have been built primarily to house library collections and accommodate study and research. Libraries now face a paradigm shift in their understanding about the form and function of library facilities (Cantor and Schomberg 2003; Boone 2003). As Boone (2003) describes, there has been a move away from the traditional repository conception of libraries as storage centers of material, to new facilities which are more complex, enhanced, interactive and research-supporting environments with multitude functionalities.

The university library as place is a learning environment and learning resource centre serving as a students' workroom. Changes in higher education, such as e-learning and the library's involvement in these as well as the pedagogical shift in higher education means that learning is seen more as a collaborative process among faculty and students, all of which affect the use of library space. The library building is now often conceived as a facility supporting an increased role in instruction and learning with classrooms, meeting rooms and computer labs all being part of the library as space and place (Leighton and Weber 1999). Technology has changed the functions of libraries and the services libraries provide. Changes in the supply of electronic resources and new digital services affect library planning because the demand for space (to store resources) is decreasing in many libraries.

Students need computers, wireless networks, teaching labs and other facilities in the library (Boone 2003; Oyston 2003; Rizzo 2002). In a 1995-2002 survey on the construction or the renovation of over 177 academic libraries in the United States, it was found out that there were several new "nonlibrary" facilities in libraries (Shill and Tonner 2003). One major change was the addition of collaborative study spaces. According to the Shill and Tonner survey

there was an increase of the following facilities: conference rooms, computer labs, seminar rooms, multimedia production centers, cafes, educational technology centers, art galleries, classrooms, auditoria, research institutes, bookstores and writing labs.

Further, the university library as place is a public space enhancing social capital. Social capital can be defined as the ability of people to work together for common purposes in groups and organizations (Gloziene 2005). Johnson and Griffis (2009) summarize that social capital both describes and explains the benefit of maintaining and/or expanding one's social connections and relationships. They emphasize the importance of investigating social capital as a way of understanding the character of library use. In their study of public libraries, they found a strong relationship between the indicators of social capital and library use. As a place both public and academic libraries are more than a place, collections and people. They are a place for gathering and sharing of ideas and messages, enhancing social capital (Crawford 1999). Because Finnish university libraries are open not only to the academic community but also to the general public, their role in enhancing social capital is considerable.

The evolution of library space could be described as follows:

- First: A collection-centered library (1<sup>st</sup> generation);
- Second: A customer-oriented library (2<sup>nd</sup> generation);
- Third: An experience-related library (3<sup>rd</sup> generation); and
- Fourth: A learning-centered library (4<sup>th</sup> generation).

A 4th generation library offers different spaces – spaces for extroverts who need open performance spaces; spaces for voyeurs who would prefer visually connected spaces; and, spaces for introverts who might prefer secluded spaces. There is also a need for informal spaces in the library (Todd 2008).

In addition, the university library as place is a campus meeting centre, which offers space for both social and individual use. It is important that people feel welcomed and comfortable in the library (Gust and Haka 2006; Rizzo 2006). Very often the library has been introduced as a third place, where members of the certain community go daily, stay and meet each other, discuss various issues and interact with others in a pleasant atmosphere (Glosiene 2005).

Among the issues that libraries need to confront is challenging some historical assumptions and a reconsideration of some fundamental strategic questions such as re-thinking their physical spaces and creating a “desirable draw”. According to Brindley (2006) “desirable draw” means that libraries should aim to be uplifting, innovative and inspiring cultural, social and intellectual spaces. There are many desirable facilities which should be found in new or renovated libraries, for example, procuring and implementing an integrated technology infrastructure, paying attention to ergonomic factors in user spaces especially where computers are used; the selection of furnishings; the choice of design,

Location	Rooms for Group Work	Teaching Labs	Reading and Working Places	Area
Main Library	4	2	497	6,251m <sup>2</sup>
Department of Health Sciences	3	1	124	1,196m <sup>2</sup>
Department of Humanities and Education, Tampere	5	2	190	2,211m <sup>2</sup>
Department of Humanities and Education, Hämeenlinna	1	0	105	627m <sup>2</sup>
Total	13	5	916	10,285 m <sup>2</sup>

Table 1: The premises of Tampere University Library in 2010

creating both noisy and quiet areas; as well as providing places where food and beverages can be consumed (Boone 2003).

In planning new library buildings or renovating old ones the critical factor is to know how library space is actually used, how the use of library premises is changing and the expectations of users with regard to the library as space. Even with this knowledge, one can assume that, overtime, the use of library premises will change, perhaps even radically. Therefore, new library buildings should not only support current use but they must also be flexible and easily modified.

## Methodology

Focus of the study: The premises of Tampere University Library

The Library at Tampere University consists of a Main Library, a Department of Health Sciences Library and a Department of Humanities and Education Library. The latter operates on both the main campus in Tampere and in the town of Hämeenlinna where support is provided for those who are pursuing teacher education courses. The Main Library operates on the main campus both in the Linna building and in the main university building, where the newspaper collection and a reading room are located. The Department of Health Sciences Library is located on the Kauppi campus close to the University Hospital and the School of Medicine.

At the University of Tampere, several new library buildings have recently become operational. In 2003, the Department of Humanities and Education Li-

brary moved into a new building on the main campus. In 2004, the Department of Health Sciences Library moved to a new building but the location was not ideal. Consequently, in the summer of 2009, this library moved again into another new building which is located closer to the faculty's teaching premises. Thus, the access to the library has become easier for the students pursuing this course. In the summer of 2006, the Main Library was given new premises. Previously, it had been located in a former shoe factory building. The new building was designed to provide modern library premises. New library premises have provided a good opportunity to analyze the use of library space and to design new solutions for better use. Information about existing library premises is presented in Table 1.

### Online surveys as a method to measure service quality

Measuring service quality and customer satisfaction has been important in the library field for decades. In the 1990's, SERVQUAL was introduced to the library world as an instrument to measure both customers' expectations regarding the quality of a service and their perception of the actual quality of the service (Yu et al. 2008). Today, SERVQUAL is used in libraries worldwide. Another method for measuring service quality, LibQual™, was developed in the United States by the Association of Research Libraries (Veinberg 2009). In addition to SERVQUAL and LibQual™ many libraries, including Tampere, have developed their own surveys which reveal gaps between expected and experienced service quality.

Yu et al. (2008) remark that users' expectations and perceptions of the library's service quality are individual and rooted primarily in their personal experiences with the library, shaped by factors from both the library world and the user's life world. Undoubtedly, user-related factors, such as personality, discipline being studied and past experience play an important role in a users' evaluation of library services. Nevertheless, responses from many customers within same library will give a big picture of the quality of library services.

Online surveys have made it easier to collect data from customers in libraries. Evans and Mathur (2005) state that although online surveys have many weaknesses for example such as a low response rate, perception as junk mail and technological variations, they have significant advantages over other types of surveys. Among the major strengths of online surveys are flexibility, convenience, speed and timeliness, ease of data entry and analysis as well as low administration costs.

At Tampere, since 2002, through extensive online surveys the quality of services and the satisfaction of customers with library services have been investigated. In 2002 and 2005, service quality surveys were conducted only at Tampere. In 2008 and 2010, the same survey was done in association with other university libraries. Email messages were posted to different mailing lists

in the university and customers were invited to visit on the library's web site and participate in the survey, which was open for two weeks. Although researchers (Evans and Mathur 2005) have commented on the usually low response rates of online surveys, at Tampere a considerable number of responses were received (Table 2). The proportion of students responding to the survey was usually larger than that of the other customers, although the student number was smaller than usual in the last survey.

	2002	2005	2008	2010
<b>Respondents</b>	n=1017	n=849	n=905	n=773
Students	77	77	79	65
Researchers/teachers	13	8	10	15
Postgraduates	*	6	7	11
Others	11	9	4	9
<b>Total</b>	<b>101</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 2: Status of Respondents (%)

\* There was no special category for postgraduates in the 2002. They were included either with students or researchers, according to their responses.

At Tampere, through service quality surveys, the gap between expected and experienced service quality was investigated. Respondents were asked to evaluate both the importance (I) and success (S) of library services on a scale from 1 to 5. The gap was counted as the value of the importance minus the success (I-S). In addition, respondents were allowed to express their verbal comments about library services.

Some questions in the service quality surveys were related to the importance of library premises to customers, and some to their satisfaction with the premises. Because Tampere University Library has recently been relocated on several occasions to new library buildings it has been possible to compare the findings of service quality surveys before and after each move. The first inquiry was carried out in 2002 when the Main Library and departmental libraries still operated in the old buildings. The second study was conducted in 2005, when the departmental libraries had moved to new buildings but the Main Library still operated out of the former shoe factory. The last two surveys were done after the Main Library had moved to the new building. In 2010, the Department Library of Health Sciences Library moved again. It now operates in a new building in which there are also some teaching facilities and offices for faculty.

### Monitoring as a method

Monitoring customers' activities in the library through observation walks is a rather simple way to gather systematic data on how library premises are actually used. The method is based on regular observation tours through the public areas of the library. Observers engaged in the study were given standardized forms to register customer behaviour and floor plans with fixed routes to walk. As it was built in 2006, Tampere's Main Library is a modern building, but how it functions daily is one of the questions that were investigated. Further, there was interest in the amount of social vs. individual use of the library's premises. The monitored public spaces in the library have different functions (Table 3). When the new Main Library was planned the idea was that the 3<sup>rd</sup> floor would be the place where the library users would study in the learning centre and therefore stay for a longer period than on the 1<sup>st</sup> floor.

Location	Functions
1 <sup>st</sup> floor	circulation desk interlibrary loan services self check-out/check-in automates text book collections in open shelves which customers are able to browse a couple of library computers for customer use all customers go to upper floors (2 <sup>nd</sup> and 3 <sup>rd</sup> ) through the 1 <sup>st</sup> floor
2 <sup>nd</sup> floor	the majority of the library's open collections reading places
Text book reading room (also located on the 2 <sup>nd</sup> floor with a separate entrance)	quiet reading room based on the student feedback open 24/7
3 <sup>rd</sup> floor	learning centre 4 rooms for group work about 50 computers with relevant software 2 teaching labs reference collection printed journals microfilm/microfiche readers information services enquiry desk

Table 3: Description of the functions of the monitored public spaces in the Main Library



<b>Categories of activities</b>
Sits alone reading or writing (without computers)
Sits or stands alone with library computer
Sits alone with own laptop
Walks or stands alone (don't use library materials or browse, and without relating to library staff)
Sits or stands in a group with library computers
Browses alone
Contact with staff
Talks on mobile phone or sends SMSs
Sits in a group reading or writing (without computers)
Queuing
Uses self check-out/check-in automates
Takes photocopies or print outs
Sits in a group with own laptop(s)
Walks or stands in company (don't use library materials or browse, and without relating to library staff)
Other activities*

Table 4: The observed categories of customers' activities

\* Sits alone or in a group without books or computers, uses microfiche or microfilm readers, browses in a group or is sleeping in the library.

All areas, on all floors, mentioned in Table 3 covered in this study were equipped with photocopiers and wireless network access. Library opening hours during the observation periods were 8.00-19.00 hours with the exception of the text book reading room which was open 24 hours daily. The service hours of the circulation desk and information services enquiry desk were 10.00-19.00 hours whereas the text book reading room had 8.00-19.00 hours service hours.

Monitoring, with modifications, was chosen as the method of observation. Monitoring and related observation methods like seating sweeps methods have been used for example in Norwegian and Canadian public libraries (Given and Leckie 2003; Baker 2006; Høivik 2008). Examples of the use of monitoring in academic libraries are rare. At Loughborough University Library, ethnographic methods which also include to some extent comparable observations have been used to investigate the physical space of the library (Bryant et al. 2009).

There are several advantages in the monitoring method, for example the gathering of data by observation tours can be conducted by library staff. Observers register what each customer is doing according to instructions given on a standardized form. Other advantages of this method are that the customers' privacy is protected, because no personal data is collected; and, the observer can remain completely detached from the observed group (Blake 2006; Høivik 2008). Hence, no specific information about what customers are doing or working on is collected when this method is used. Despite these limitations researchers found that this method is very useful for supplementing their knowledge of customer use and satisfaction with library premises.

The activities of customers were divided into a set of categories, presented in Table 4. The categories were chosen on the basis of the results of previous work by researchers such as Høivik (2008) with regard to the essential functions of the monitored university library. Further, activities were monitored with respect to whether they were conducted individually or in a group.

The monitoring was carried out during two separate weeks in the premises of the Main Library to get comparative data the use of the library as space. The first monitoring took place during March 30–April 3, 2009 (later referred to as Week 1); and, the second during October 12–17, 2009 (later referred to as Week 2). Both monitorings were arranged from Monday to Friday, four times a day, at 9.00 a.m., at 12 noon, at 3.00 p.m. and at 6.00 p.m. The monitoring took place in four different locations: the 1<sup>st</sup> floor, the text book reading room, the 2<sup>nd</sup> floor, and, the 3<sup>rd</sup> floor. In the first monitoring, 23 members of the library staff volunteered to do the monitoring tours according to given instructions, forms and floor maps. The second observation week was conducted by 22 library staff volunteers, some of whom were new volunteers. The addition of new persons to the monitoring group was welcomed as some of the persons who had worked in the first phase of the monitoring were on vacation during the second round of the survey. Thus, altogether 32 members of the Main Library staff participated in making one or several monitoring walks in one or both weeks.

## Results

### Service quality in relation to library premises

In spite of the rapid growth of electronic collections in academic libraries and the remote access to these collections, the physical library space is still heavily used. In the 2010 survey, 773 responses were received. Almost a half of respondents (46%) indicated that they visited the library on a weekly basis, with 8% visiting on a daily basis. One third visited the library a few times a month, and 22% visited less than once a month. The findings certainly reflect the large

proportion of students who responded to the survey. However, this does not reduce the significance of the findings. While researchers and teachers at the university have offices, for students the physical library space is important as a learning environment and a workroom. Therefore, the quality of library premises is not a question of secondary importance.

Respondents mostly came to the library to use library services. The most common activities in 2010 were: to borrow and return books (23%); to study alone in the library (14%); to use e-resources in the library (11%); to use printed resources in the library (10%); to search information (9%); and, to use the library's computers e.g. for email (9%). Some respondents (6%) said that they came to the library to search for information or seek advice. While others (6%) said that they came to copy and print. Some respondents (2%) participated in the information literacy classes in the library. Only a few respondents (5%) stated that they studied in a group in the library. Even less, 4% came to the library to hang out and 2% came to meet friends. Thus, these most recent findings support the idea regarding the library as a place for individual study.

When the quality of library premises were analyzed attention was paid to responses regarding different aspects of the library's premises (Table 5). While some customers appreciated the cozy and quiet space, the others valued the number of reading places as well as computers or rooms for group work as a sign of good quality library premises.

The findings of the surveys showed that the quietness of library premises has been the most important aspect of the quality of library space year after year (Table 5). In a hectic and even noisy world, library users seem to need and appreciate a quiet place. However, the expectation of quiet library premises might also be rooted in users' previous library experiences or even in the media, where silence has strongly connected with the image of the library. Although the quietness of library premises was evaluated as the most important aspect of the quality of library space, its' significance clearly decreased between 2002 and 2010.

Because service quality surveys were regularly conducted, it was possible to trace changes in the library's service quality including changes in customer satisfaction with the library's premises in recent years (Table 5). There is a special interest in customer perceptions of library premises because, as mentioned earlier, Tampere has moved to many new library buildings since the beginning of this millennium. If there is no indication that there has been an improvement in the quality of library premises, then questions could be raised about whether money has been well spent.

Comparing the results of surveys indicates some interesting changes. In 2002, when all library units still operated in the old buildings, there was quite a big gap between the perception of the importance of library premises and the customers' satisfaction with them. After moving to new buildings, the gap has clearly become smaller and almost vanished. The investment in new library

Library premises	2002 (n = 1017)			2005 (n = 849)			2008 (n = 905)			2010 (n = 773)		
	I	S	G	I	S	G	I	S	G	I	S	G
Premises in general	*	*		*	*		4.0	4.1	- 0.1	*	*	
The cozy premises	4.41	3.65	0.76	4.41	3.71	0.7	*	*		4.1	4.2	- 0.1
The quietness of premises	4.89	3.58	1.31	4.88	3.91	0.97	4.3	3.9	0.4	4.2	4.1	0.1
The number of reading places	4.76	3.36	1.4	4.68	3.76	0.92	*	*		*	*	
The number of computers	4.65	3.16	1.49	4.66	3.54	1.15	4.1	3.8	0.3	4.0	3.8	0.2
The rooms for group work	*	*		4.33	3.76	0.59	3.4	3.9	- 0.5	3.5	4.0	- 0.5

Table 5: The customers' assessment of library premises

**Key**

I = Importance

n = the number of responses

S = Success

1–5 = the scale of responses

G = Gap = Importance – Success

\* The question was not asked.

premises has been profitable for the library users. One respondent wrote in 2010 as follows:

It is fantastic, that Tertio (the Department Library of Health Sciences [Library]) moved closer to students. Library premises are very, very cozy, even when it comes to the colors. Thank you for the library; a nice place to visit and get friendly service!

Table 5 demonstrates that in 2008 and 2010, customers evaluated the rooms for group work more successful than their importance to them. Customer expectations and satisfaction with the quietness and coziness of library premises and the number of computers were almost in balance in 2010. Although the customer satisfaction with these factors grew between 2002 and 2010, at the same time their importance has slightly decreased. The biggest drop in the number of the importance of library premises took place between the survey in 2005 and 2008. This coincides with the period during which the Main Library moved to the new building.

There might be different reasons for the decline of the importance numbers. One of the reasons may be that the habits of customers to use or visit the physical library have changed. When new students come to the university, they come with their own life world and past experiences with other libraries. It is totally possible that new students may have different expectations about library premises than students of only a few years ago. However, it may also be possible that when users have better library premises and facilities available, they take them as self-evident and so they do not place as much emphasis on the importance of premises. When Tampere still operated out of old buildings when there were many shortcomings, it was only human to emphasize the importance of high-level library premises.

### Monitoring gives evidence on the daily use of the library premises

In addition to conducting the customer inquiries and regularly counting the number of visits to the library, it was interesting to monitor and investigate what library users actually do in the library, e.g. do they interact with others? Do they interact with texts or with computers?

The results of the monitoring experiment indicate that the library premises are actively used, with an average of 117 observations being noted at one specific time use.

<b>Time</b>	<b>Mon.</b>	<b>Tue.</b>	<b>Wed.</b>	<b>Thu.</b>	<b>Fri.</b>	<b>Total</b>
9.00 a.m.	49	54	56	50	52	261
12 noon	148	178	152	185	113	776
3.00 p.m.	205	220	190	170	133	918
6.00 p.m.	92	82	72	83	49	378
Total	494	534	470	488	347	2333

Table 6: Week 1 – total number of monitoring observations by time

<b>Time</b>	<b>Mon.</b>	<b>Tue.</b>	<b>Wed.</b>	<b>Thu.</b>	<b>Fri.</b>	<b>Total</b>
9.00 a.m.	51	52	47	28	20	198
12 noon	162	180	184	145	81	752
3.00 p.m.	224	316	218	138	97	993
6.00 p.m.	133	109	88	37	27	394
Total	570	657	537	348	225	2337

Table 7: Week 2 – total number of monitoring observations by time

In the first monitoring week, the number of activities observed at the specific times ranged between 49 (Monday 9.00 a.m. and Friday 6.00 p.m.) and 220 (Tuesday 3.00 p.m.). In the second week, the range was between 27 (Friday 6.00 p.m.) and 316 (Tuesday 3.00 p.m.). Interestingly, the monitoring session with the most activity usually took place at 3 p.m. with the exception of Thursdays when the greatest of activity was observed at noon. The lowest activity took place during the 9.00 a.m. observations with the exception of Friday in Week 1, when 6.00 p.m. in the evening was the quietest time.

Table 8 indicates that the monitoring interestingly showed that of all the activities observed, the most common ones were reading (50%) and writing alone (43%). The second common activity in Week 1 was using library computer alone – 19% of monitored activities, and the third common activity in Week 1 was sitting alone with own laptop – 12% of all observed activities. However, in Week 2, the percentage of those sitting alone with their own laptop (17%) was equal to the percentage of the category that sits or stands alone with a library computer. In fact, the number of observations of the individual use of laptops was slightly higher in Week 2 than the number of observations of in-dividuals using library computers.

Generally, the use of computers in the library was significant, 35% vs. 37% of all observations included either the use of library computers or personal laptops. This demonstrates a shift in library functions from static book collections towards a modern learning environment which combines the electronic and printed resources of the library.

In the second observation week, there were more observations of walking or standing customers (10%) than in the first week (6%). One explanation could be that information literacy classes took place in the teaching labs inside the library in the second week.

Surprisingly, the categories “browsing alone” (2%) and “contact with staff” (1%) represented only a fractional part of observed activities. Most of the service desks in the library were closed at 9.00 a.m. when the first monitoring tours were conducted, so contact with staff at the desks was not possible at that time. Further the evening tours at 6.00 p.m. were carried out by the librarian who also was on duty at the information services desk on the 3<sup>rd</sup> floor learning resources centre. Thus, that staff member was not available to customers at that time. However, some librarians reported that they had been consulted by the customers while they were on their monitoring tour.

The results are somewhat similar to results from previous studies. The results from two Canadian central public libraries, Toronto Reference Library and Vancouver Public Library reported by Given and Leckie (2003) indicated that reading was the most prominent activity at all times of the day in both libraries. More recent results from Norway’s Drammen Library, a digitally well-equipped public library, showed that the most common activity was sitting alone with library computer – 18% of observations. Sitting alone reading or

Categories of activities	Week 1 n	Week 1 %	Week 2 n	Week 2 %
Sits alone reading or writing (without computers)	1158	50%	996	43%
Sits or stands alone with library computer	447	19%	394	17%
Sits alone with own laptop	274	12%	397	17%
Walks or stands alone (don't use library materials or browse, and without relating to library staff)	142	6%	220	9%
Sits or stands in a group with library computers	94	4%	57	2%
Browses alone	45	2%	58	2%
Contact with staff	33	1%	34	1%
Talks on mobile phone or sends SMSs	30	1%	20	1%
Sits in a group reading or writing (without computers)	23	1%	40	2%
Queuing	20	1%	19	1%
Uses self check-out/check-in automates	17	1%	15	1%
Takes photocopies or print outs	16	1%	20	1%
Sits in a group with own laptop(s)	11	0%	21	1%
Walks or stands in company (don't use library materials or browse, and without relating to library staff)	11	0%	15	1%
Other activities*	12	1%	31	1%
Total	2333	100%	2337	100%

Table 8: The observed categories of customers' activities by frequency

\* sits alone or in a group without books or computers, uses microfiche or microfilm readers, browses in a group or is sleeping in the library.

writing was the third highest level of usage (13%). Staff contact was 3% of library usage and browsing was 4% of the more than 4000 observations made during a week of observations in 2007 (Høivik 2008). However, when comparing the results from Tampere with those from public libraries attention must be paid to the functional differences between academic and public libraries, (e.g.

study purposes *vs.* recreation). In the study at Tampere the use of library premises seems to be related to studying, i.e. reading, writing and working with computers, while the use of public libraries was more related to recreation.

Categories of activities	W 1 Alone	W 1 In a group	% of W 1	W 2 Alone	W 2 In a group	% of W 2
Sits reading or writing	98%	2%	51 %	96%	4%	44%
Sits or stands with library computer(s)	83%	17%	23 %	87%	13%	19%
Sits with own laptop(s)	96%	4%	12 %	95%	5%	18%
Walks or stands	93%	7%	7 %	94%	6%	10%
Browses	100%	0%	2 %	94%	6%	3%
Contact with staff	100%	0%	1 %	100%	0%	1%
Talks on mobile phone or sends SMS	100%	0%	1 %	100%	0%	1%
Other activities*	97%	3 %	3%	63%	37%	3%
Total	94%	6%	100%	93%	7%	100%
n	2192	141	2333	2170	167	2337

Table 9: The customers' activities alone *vs.* in a group

\* Queuing, the use of self check automates, photocopiers or microfiche readers, sitting without books or computers etc.

### Key

W1 = Week 1

W2 = Week 2

In Table 9 individual and group level activities are compared. Table 9 shows that the most common activity without respect to individual or social use, was sitting reading and writing, with 51% *vs.* 44% of all observations. As shown in Table 9 only 6% *vs.* 7% of the observed activities took place in a group. This result was somewhat lower than expected.

In Table 9, computer use has been highlighted as it is included in customer activities in all locations alone *vs.* in a group. The use of computers was registered at 826 in Week 1 *vs.* 869 during Week 2 observations, i.e. about 35% *vs.* 37% of all observed activities. The use of library computers, was almost twice as common (23%) compared to the use of personal laptops (12%) in the first observation week. However, in the second observation week, the number of



observations of the use of personal laptops increased. For example the individual use of personal laptops overtook the individual use of library computers. It will be extremely important to follow this trend in the future.

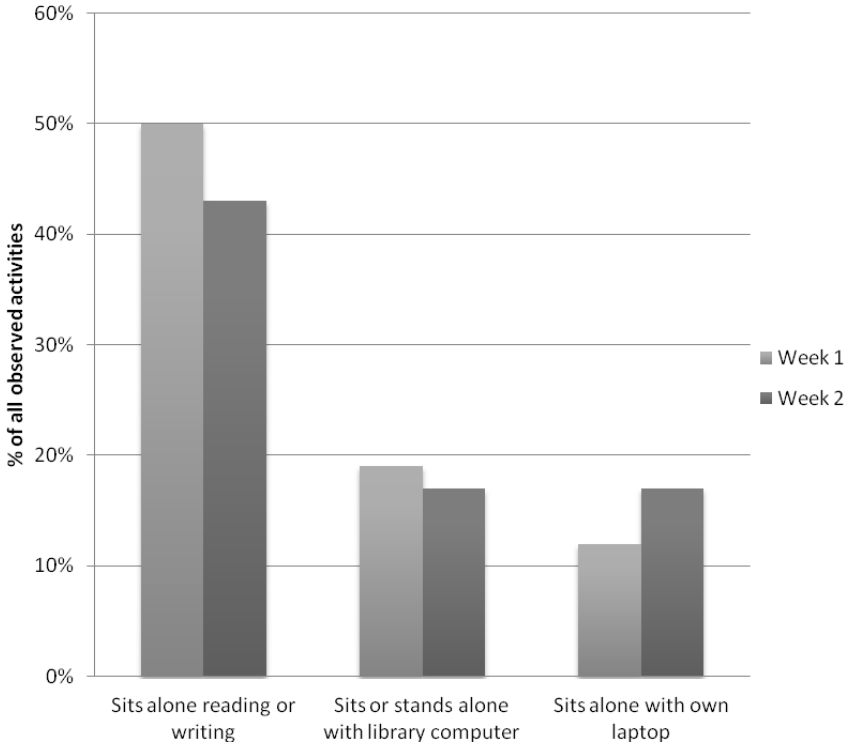


Figure 1: Comparison between the three most common observations in Weeks 1 and 2

The results of the monitoring showed that the library is used most often for individual reading and/or writing. The use of library premises by groups was lower than expected in the observation period. The students are nevertheless in the library to complete their tasks given by the faculty. If the tasks are mostly individually based, there is no need for group work. On the other hand collaboration can also take place in virtual networks.

Figure 2 demonstrates the total number of observed activities at different times in both weeks. As seen in this figure, information gathered in the observed weeks was remarkably similar.

Figures 2a and 2b illustrate the differences between observed activities at different times of the day. As it was assumed, the busiest time of the day was afternoon. The Figures also demonstrate that the category sitting alone reading or writing was the most common activity at all times.

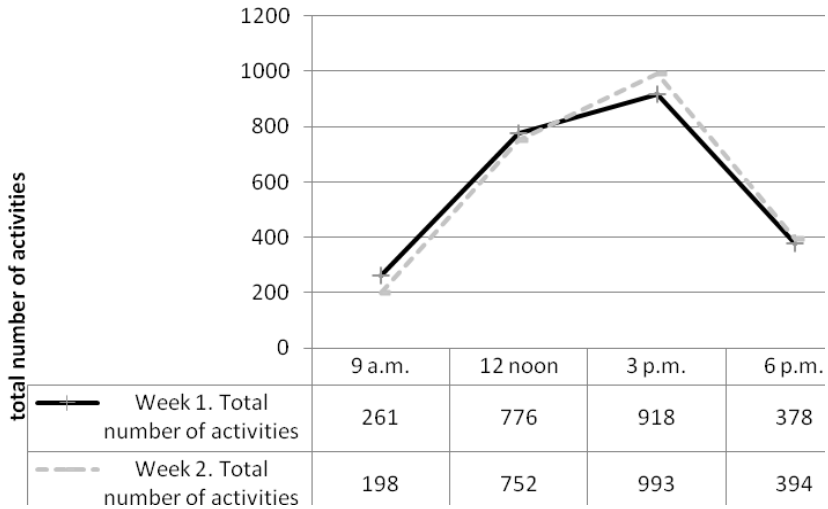


Figure 2: Total number of observed activities by time in Weeks 1 and 2

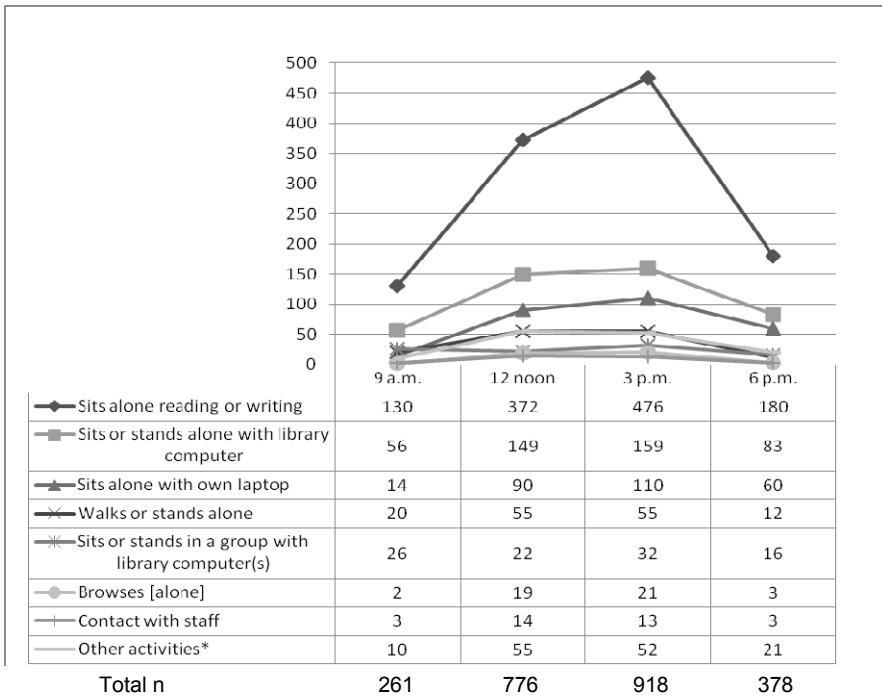


Figure 2a: Week 1– customers’ activities by time

\* Queuing, the use of mobile phones, self check automates, photocopiers or microfilm readers, walking or standing in company, sitting in a group reading or writing or with own laptop(s), or sitting alone without books or computers, etc.

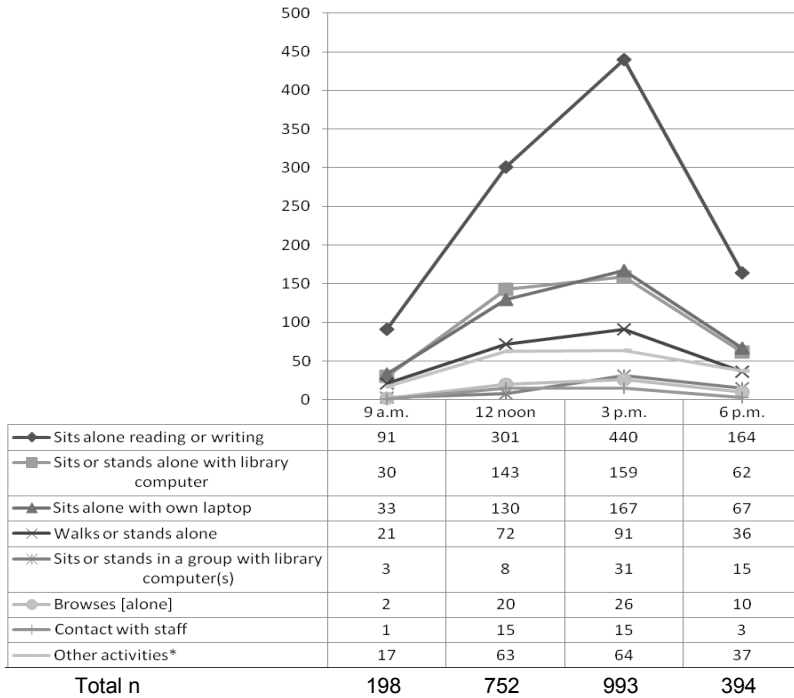


Figure 2b: Week 2– customers’ activities by time

\* Queuing, the use of mobile phones, self check automates, photocopiers or microfilm readers, walking or standing in company, sitting in a group reading or writing or with own laptop(s) or sitting alone without books or computers, etc.

Comparing Figures 2a and 2b shows that there is a visible difference between the number of observations in the categories sits or stands alone with library computer and sits alone with own laptop. In Figure 2a we can see that the number of observations of sits or stands alone with library computer was clearly higher than the number of observations of sits alone with own laptops. In Figure 2b in the second week, the pattern is different. The number of observations in the category sits alone with own laptop has even surpassed the number of observations of individual use of library computers.

Clearly, the library gets useful information from results of this kind for the planning of services and service hours. However, the risk of generalizing too widely results from a survey done during two weeks (at staggered periods) needs to be taken into consideration as well as probable developments and changes in the use patterns of customers.

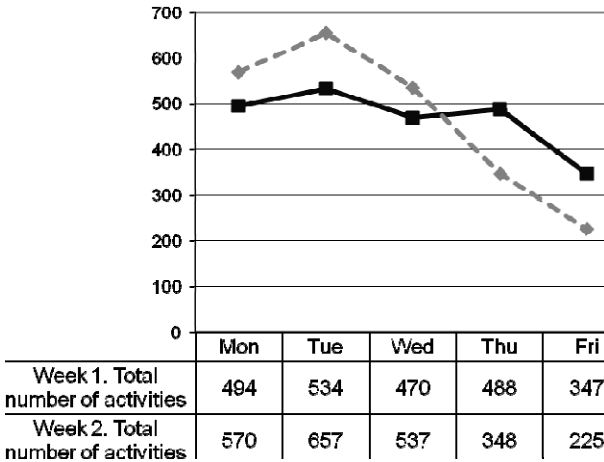


Figure 3: Total number of observed activities by weekday in weeks 1 and 2

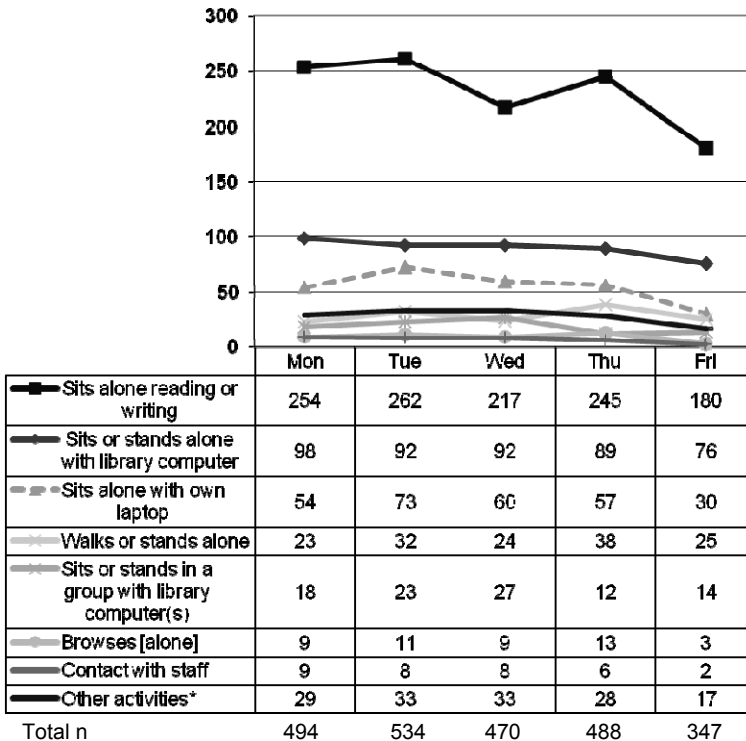


Figure 3a: Week 1– customers’ activities by weekday

\* Queuing, the use of mobile phones, self check automates, photocopiers or microfilm readers, walking or standing in company, sitting in a group reading or writing or with own laptop(s) or sitting alone without books or computers etc.

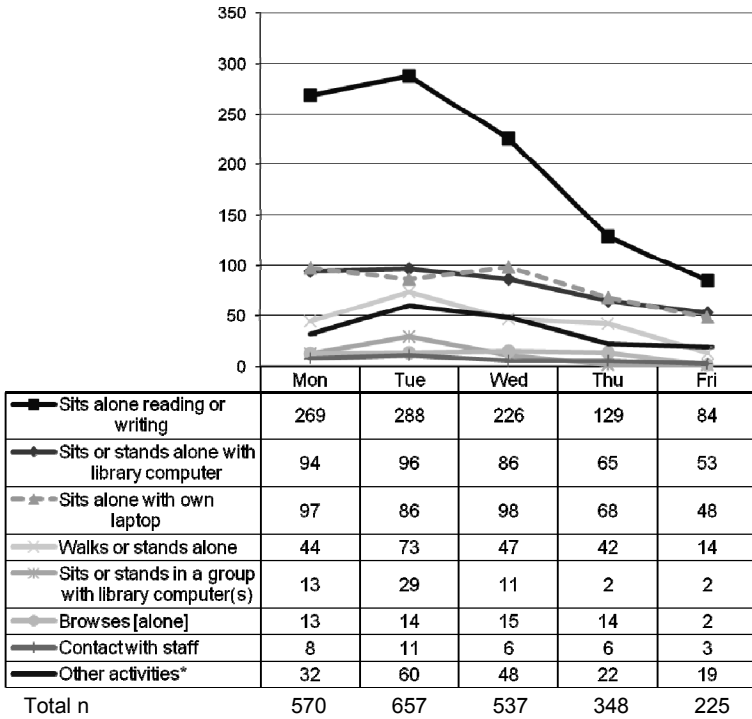


Figure 3b: Week 2 – customers’ activities by weekday

\* Queuing, the use of mobile phones, self check automates, photocopiers or microfilm readers, walking or standing in company, sitting in a group reading or writing or with own laptop(s) or sitting alone without books or computers etc.

As shown in Figure 3, Friday was clearly the quietest day in both weeks. Of the observed weekdays Tuesday was the busiest day of the week. Monday, Wednesday and Thursday also had remarkably more activities than Friday.

A comparison between Week 1 and Week 2 shows that in Week 2, on Monday there were 15%, on Tuesday 23% and on Wednesday 14% more observed activities than in Week 1. Whereas during Week 2 with respect to observations, on Thursday there was almost a 29% reduction and on Friday 35% reduction when this week is compared to Week 1. One explanation for this pattern could be the fact that *Hämeenkadun approbatur* (a student happening) took place on Thursday in the second monitoring week.

As shown in Figures 3a and 3b, the category sitting alone reading or writing was the most common activity of all weekdays. Even though, there is an outstanding difference between the patterns in this category in the two weeks. In Week 1, there is a 31% decline in the category that sits alone reading or writing with the largest number of observations on Tuesday and the smallest

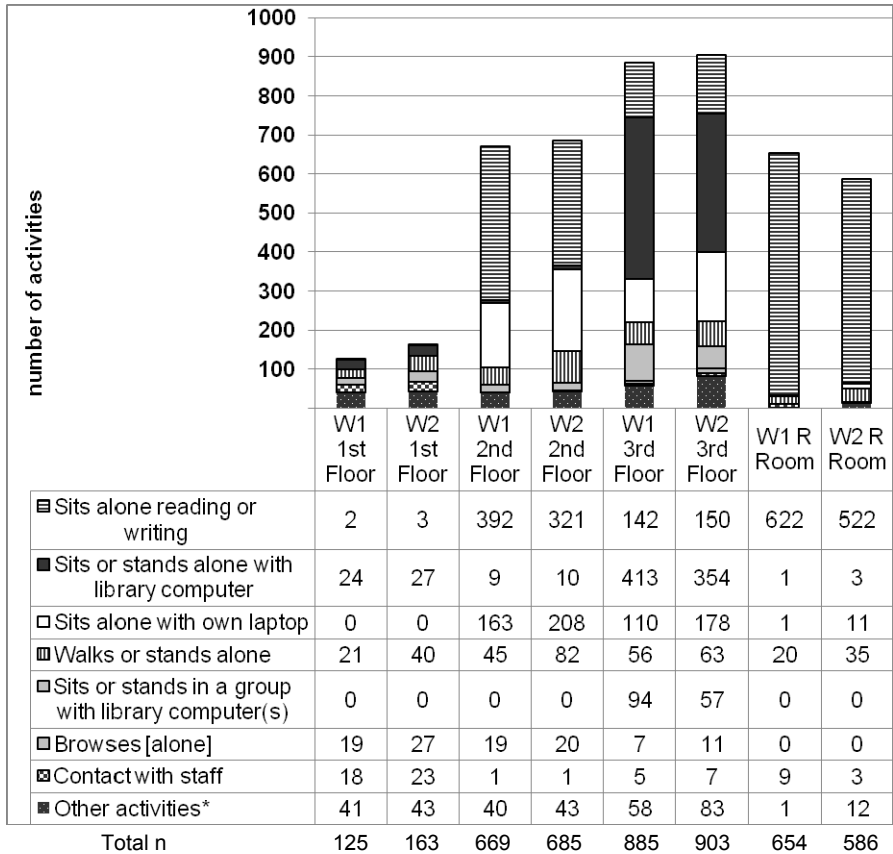


Figure 4: Customers' activities by location

\* Queuing, the use of mobile phones, self check automates, photocopiers or microfilm readers, walking or standing in company, sitting in a group reading or writing or with own laptop(s) or sitting alone without books or computers etc.

number of observations on Friday. In Week 2, there is almost a 71% decline in this category between Tuesday and Friday. Such big differences between weekdays are not found in other categories of the monitoring.

Different locations in the Main Library have different functions. The differences in the numbers of observations varied between different locations (Figure 4). For example, the number of activities on the 1<sup>st</sup> floor where circulation functions are located was lower when compared with other observed spaces. It is worth knowing that the 1<sup>st</sup> floor is a place of quick visits quick to take care of business such as borrowing, returns, charges and interlibrary loans. Customers usually do not stay there for a long time. Instead, the reading

rooms on the 2<sup>nd</sup> and 3<sup>rd</sup> floors are spaces for study purposes and offer a place for longer stays than the 1<sup>st</sup> floor.

This study was conducted on two occasions during the academic year. Nevertheless, more investigations are needed. Monitoring should be regularly used to reveal ongoing changes in patterns of customer use of library premises.

## Conclusion

University libraries face an imperative to demonstrate the value of their services to their institutions, including the evidence of the impact the library premises have as space and place for the community they serve. University libraries should document and prove their value by using various methods and data. It is suggested that in order to provide an overview of the impact of the library premises as space and place, multiple methods are needed for collecting rich data. Service quality questionnaires have been used generally in gathering data about the importance and success of library premises. By repeating the same questions regularly it is possible to find changes in customers' perceptions. However, different data is needed to find out, what the real usage of library premises is and how it is changing. The monitoring of users' activities in the university libraries has not yet been a very widely used method to gather information about the use of library space. This study offers an applicable and easy model that can be repeated by other university libraries. The sharing of comparative data with Tampere University from another university library would be most welcome.

What was noticed is that customers are still physically present in the library although many services are nowadays available via the network connection with library users being able to use many library services anytime, anywhere. Users still come to the physical library to study; they even come there to get access to the networked environment, in spite of there being a virtual library. This emphasizes the importance of modern and well-equipped library premises on campus. When the use of the Main Library premises were monitored, it was found that about 35% vs. 37% of all observed activities were related to the use of computers. The university library as a place is an interesting and important hybrid library especially for students offering them both a real and virtual learning environment.

In the literature there are several references to the changes in higher education and their effect on university libraries. For example, many current trends in higher education, such as problem-based learning, emphasize the need for space for group work. For some reason not a lot of evidence was collected on these issues. According to our surveys in 2008 and 2010, the customers evaluated the rooms for group work more successful than their importance to them. During the monitoring, it was observed that customers clearly worked more

alone than in a group. Probably the teaching methods at the University of Tampere had not yet become collaborative work oriented rather there was still an emphasis on studying alone. Further, of the faculties supported by the library it is known that the problem-based method of learning is not as widely used except in the Faculty of Medicine. Describing the students' use of library space some assumptions can be presented about the most common current teaching methods as well as some ideas regarding the use of diverse methods. It is recognized that collaboration can take place in virtual networks, and that this would not be revealed by monitoring methods. Therefore, more investigation needs to be done with respect to student collaboration in virtual networks.

On one hand, it was possible to gather some evidence about the library as a third place. The library premises were estimated very cozy (4.2/5) in the 2010 survey and the library visits took place regularly. Comparing results of the 2002 and 2010 surveys it was noticed that moving to new buildings had added to the users' impression of a welcoming of the library premises. In addition, findings of the monitoring show that customers came to stay in the library. On the other hand, it was not possible to acquire a lot of evidence about the library as a meeting place or enhancing social capital. Principally, customers worked and used library services as individuals rather than in groups for joint benefits. However, the findings of both the 2010 survey and monitoring showed that there also were user groups in the library. It is hoped that in the future library usage of this nature will increase. Probably university libraries as a space will never be the same in terms of being a space for socializing as public libraries but over time they might enhance social capital and support collaborative work for common purposes more than they do today.

The vision of Tampere University Library has been formulated in its strategy for the years 2010-2015 as follows:

“Tampere University Library is well-known for its trustworthiness as a scientific information supplier and authority. The library actively promotes the open access availability, foresees the changing information needs of its users and offers an inspiring operational environment”.

The strategy was written in association with the library's stakeholders, members of the faculty and students and it is fundamental to the development of the library. The vision clearly directs the library to get evidence about the daily use of library premises, evidence-based development of library services, including library premises, and to ensure that library staff have the skills to deliver services to meet the needs of library customers.

The surveys and monitoring were carried out by the library staff in collaboration with members of staff from different library departments. The experiments also were learning processes for the staff. Thus, they have enhanced collaborative knowledge-building and sharing in the library. In addition, con-



ducting the studies has strengthened the library as a learning organization. As part of academic community the library attempts to be research- based in all activities and planning processes. The presentation of facts and evidence-based information for example to the main organizations and financiers will increase the credibility and reputation of the library.

User satisfaction is the final goal of all the development that is done by the Tampere University Library. It is believed that useful evidence about the daily use of library premises has been collected and that the library will benefit from this information in the future. It is also pleasing to be able to report a growth in customer satisfaction with the library at Tampere as space and place.

The studies have reveal information that is pertinent to space planning. The library will take measures to put into action a plan that responds to these findings. For example, the findings of both the 2010 survey and monitoring showed that there is need for peaceful working places in the library. This the library should take seriously and make sure that these needs are addressed with more quiet places being made available for students. It may perhaps even need to make some adjustments to existing facilities to provide more quiet areas/spaces. Hopefully, since the premises are relatively new large modifications will not be needed. According these studies it is also clear that students come to the library to use computers, so also the availability of computer working places and number of computers are matters that the library needs to address continuously, even though customers nowadays increasingly use their own laptops in the library. As a consequence, in addition to providing a wireless network the library has ensured that there are desks without computers but supplied with electrical sockets for computer use.

This chapter reports on both the longitudinal and recent results that have been achieved at Tampere. The results show that the library is actively used, and thus the investments in new library premises are valued and have been profitable for library users.

## References

- Baker, L. "Observation: a complex research method." *Library Trends*, 55.1 (2006): 171-189.
- Boone, M. D. "Monastery to marketplace: A paradigm shift." *Library Hi Tech*, 21.3 (2003): 358-366.
- Brindley, L. "Re-defining the library." *Library Hi Tech*, 24.4 (2006): 484-495.
- Bryant, J., Matthews, G. and Walton, G. "Academic libraries and social and learning space: A case study of Loughborough University Library." *Journal of Librarianship and Information Science*, 41.1 (2009): 7-18.
- Cantor, N. E. and Schomberg, S. "Poised between two worlds: The university as monastery and market place." *EDUCAUSE Review*, 38.2 (2003): 2-21.
- Crawford, W. "Library space." *Online*, 23.2 (1999): 61-65.

- Evans, J. R. and Mathur, A. "The value of online surveys." *Internet Research*, 15.2 (2005): 195-219.
- Given, L. M. and Leckie, G. J. "Sweeping the library: Mapping the social activity space of the public library." *Library and Information Science Research*, 25 (2003): 365-385.
- Glosiene, A. "A Third Place." Presented at Information, Communication, Society International Conference, Tallinn University, Estonia, 8-10 October, 2005.
- Gust, K. J. and Haka, C. H. "Bringing users back to the library: A case history." *New Library World*, 107.3/4 (2006): 141-148.
- Høivik, T. "Count the traffic." *IFLA General Conference, Quebec, 2008. 74th Conference Proceedings*. 2008.  
<http://www.ifla.org/IV/ifla74/papers/107-Hoivik-en.pdf> [Mar. 2011].
- Johnson, C. A. and Griffis, M. R. "A place where everybody knows your name? Investigating the relationship between public libraries and social capital." *Canadian Journal of Information and Library Sciences*, 33.3/4 (2009): 159-191.
- Leighton, P. D. and Weber, D. C. *Planning Academic and Research Library Buildings*. 3<sup>rd</sup> ed. Chicago: American Library Association, 1999.
- Oyston, E., ed. *Centred on Learning: Academic Case Studies on Learning Centre Development*. Aldershot: Ashgate, 2003.
- Rizzo, J. C. "Finding your place in the information age library." *New Library World*, 103.1182/1183 (2002): 457-466.
- Shill, H. B. and Tonner, S. "Creating a better place: Physical improvements in academic libraries 1995–2002." *College and Research Libraries*, 64.6 (2003): 431-466.
- Tampere University Library. *Tampere University Library Strategy, 2010-2015*. 2010.  
<http://www.uta.fi/laitokset/kirjasto/english/information/strategy.php> [Mar. 2011].
- Todd, H. "Library spaces – new theatres of learning: a case study." *11th European Conference of Medical and Health Libraries 23-28 June, 2008, Helsinki, Finland*. 2008.  
<http://www.uta.fi/laitokset/kirjasto/english/information/strategy.php> [Mar. 2011].
- Veinberg, A. "Measuring and analyzing service quality in the National Library of Estonia." Veinberg, Anne, ed. *Teenuse Kvaliteet – Raamatukogutöö tulemusliikkuse Näitaja = Service Quality – Library Performance Indicator*. Tallinn, Estonia: Eesti Rahvusraamatukogu, 2009.
- Yu, L., et al. "An epistemological critique of gap theory based library assessment: the case of SERVQUAL." *Journal of Documentation*, 64.4 (2008): 511-551.



## Part Four – Other A2K Theme Approaches



# ILS vs. DBMS in Latin American Web OPACs: Discriminant Analysis Applied to User Interface

Elsa Barber

Silvia Pisano

Sandra Romagnoli

Verónica Parsiale

Gabriela de Pedro

Carolina Gregui

Nancy Blanco

*Instituto de Investigaciones Bibliotecológicas, Facultad de Filosofía y Letras, Universidad de Buenos Aires*

## Introduction

This chapter reports on the research project “Online Public Access Catalogs (OPACs) in Mercosur”<sup>1</sup> Project F054, (UBACYT Scientific Program 2004-2007, Universidad de Buenos Aires). The aim of the project was to investigate the use of new information technologies in libraries in a selected geographical grouping. The project revealed that only minimal services were available through most online public access catalogs in libraries of Mercosur member and associate countries. Further, the survey indicated that many of them were in an early stage of implementation (Barber et al. 2006, 2007a, 2007b, 2008). According to international trends catalog functions should be based on user needs. Consequently, results provided by this research offer relevant information that could be taken into account by libraries in the region when software and functionalities were being evaluated and/or considered.

Given the many challenges that libraries face in the information age, the aim of Project F036 – “Online public access catalogs (OPACs) in Latin America”<sup>2</sup> (UBACYT Scientific Program 2008-2010, Universidad de Buenos Aires)

---

1 The Mercosur countries are Argentina, Brazil, Paraguay and Uruguay. Bolivia, Chile, Ecuador, Peru and Venezuela have associated status with this political grouping.

2 For the purposes of this survey and findings presented in this chapter the following countries comprise the group known as Latin America: Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Columbia, Costa Rica, Cuba, Ecuador, El Salvador, French Guiana, Guatemala, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Suriname, Trinidad and Tobago, Uruguay and Venezuela.

was-see if it was possible to extend the findings of Project F054 in Mercosur countries to the rest of Latin America. In addition, Project F036 focused on an analysis of user interface of Web OPACs<sup>3</sup> in university, special, public and national libraries with a view to establishing differences among them depending on whether they had chosen an Integrated Library Systems (ILS) or Database Management Systems (DBMS). This chapter presents the results of a survey of Project F036.

Project F036 provides primary data and increases knowledge on a key aspect of access and use of information a region that of several developing countries (see footnote 2). Moreover, Project F036 provides a methodological tool that could be used to study similar situations in other regions.

## Theoretical Framework

Since the eighties, when the use of OPACs began to spread (Kaske and Ferguson 1980), several studies were conducted, the findings of which described and compared existing OPAC features in relation to user interface (Hildreth 1982, 1985; Matthews 1982). Similarly, from the 1980s onwards efforts were devoted to the design of third generation catalogs (Kaske and Ferguson 1980; Williamson 1982; Clifford 1987; Hildreth 1987, 1988; Culkin 1989; McGarry and Svenonius 1991; Frost, 1994; Larson et al. 1996; Stevens 1998; Delsey 2001; Byrum 2005). Since the 1990s, as a result of this ongoing research several recommendations have been made with regard to improving OPACs, three of which will be mentioned:

1. Improvement of database records;
2. Search capability; and
3. Interface design.

Researchers commenting on these areas include Hildreth 1995, 2001; Beaulieu and Borgman, 1996; Large and Beheshti 1997. Yee (1991) warned that search methods, indexing and format display as well as data relations and structure all relate to user interface. Experts focused their attention on some specific issues relating to user interface, but not as much on the functionalities of components in OPACs (Hildreth 1995; Borgman 1996; Beaulieu 2000).

In order to increase the level of the usability of OPACs, conversational as well as object oriented interfaces have been considered either as opposite (Chiang 1991), or, as two sides of communication able to complement each other to deliver solutions (Henry 1991). But such developments would take into account other issues such as human-computer interaction and the design of inter-

---

3 As all the OPACs in this study are situated in the Web, hereafter they will only be referred to as OPACs.

faces suited to resolve different tasks (Hildreth 1988, 2001; Henry 1991; Carlyle 1996; Shneiderman 1998; Beaulieu 2000; Gremett 2006; Komlodi et al. 2006; Meadow et al. 2007). Design should be intuitive; and, context needs to be considered, especially the Internet, where direct user assistance is restricted (Bates 1991; Shneiderman 1998; Wildemuth 2006). According to some authors, design should be able to accommodate a wide range of user search behavior patterns in libraries and not only in catalogs (Beheshti et al. 1996).

In the beginning, first and second generation catalogs offered menu-driven or command-driven interfaces. Due to their limitations, some projects (OKAPI in England; MELVYL in the University of California, among others) began to evolve into a more interactive system through the use of heuristic algorithms that, even when they were not completely successful, led the way to the next generation of OPACs (Clifford 1987). Williams et al. (1986) examined, in this sense, the associative interface where terms entered by users were system-associated with other terms to identify additional potentially relevant documents or to delimit results if precision was too low.

Williams et al. (1995) also referred to graphical user interface (GUI); whereas Yee and Layne (1998) made reference to form fill-in, client-server and Web interfaces. Dowling (1997) pointed out that despite the “technological immaturity” of many OPACs, their implementation in the Web was the best option for libraries. In the Statement of International Cataloguing Principles (IFLA 2009) functions of the catalog were updated and described as being: to find, to identify, to select, to obtain, and, to navigate. On this basis, bibliographic services undertook new initiatives to increase the value of online catalogs (Byrum 2005). Beheshti’s (2003) view was that even when OPACs were implemented using client-server platforms, Z39.50 Protocol and links to other resources, they continued to be non-integrated systems to information resources.

Software developments designed to overcome the above-mentioned limitations were based on the design of an integrated system which acted like a portal that could perform searches through multiple databases (Thomas 2000; Arant and Payne 2001; Beheshti 2003; Dorner and Curtis 2003; Library of Congress. Portals Applications Issues Group 2005). A tool with such features would demand a common user interface, similar to the one proposed by Boss (2005). Recent research considers bibliographic records display in OPACs and available on the Web (Cherry and Cox 1996; Carlyle and Timmons 2002). Ayres et al. (1999) started the project, “BOPAC2”, to test and evaluate Web interfaces that made uniform access to online catalogs through Z39.50 Protocol possible.

In Ibero-America<sup>4</sup> some authors explored users’ attitude towards online catalogs since they were first introduced in universities (Martínez–Arellano

---

4 This is a collective term that describes those countries in Latin America which were former colonies of Spain and Portugal.



1996; Villén-Rueda et al. 2007). On the other hand, other authors reflected on the underlying problems in catalogs despite the significant improvements that had been made in user interfaces (Ortiz Repiso and Moscoso 1999; Rodríguez Yunta and Giménez Toledo 2005). Herrero Solana and Moya Anegón (2001) used Cherry and Cox's (1996) criteria and applied the multivariate analysis to 25 Latin American OPACs.

From the above mentioned precedents and given that Project F036 did not have the initial aim of evaluating implemented systems or suggesting guidelines for their design but to describe their functionalities, the checklists developed by Cherry and Cox (1996) and by Abadal Falgueras (2002) as well as the guidelines for displays in OPACs (Yee 1998) were not used. Criteria applied by Dorner and Curtis (2003) to compare and evaluate library portals were not used either, because they had been conceived to analyze different objects of study, not yet present in most Latin American libraries.

Instead, the criteria developed by Hildreth (1982) proved to be appropriate tools to examine the features of OPACs interfaces even though they had been conceived to observe online catalogs *in situ*. Besides, their categories of analysis had been chosen to carry out some other descriptive and comparative studies (Zumer and Zeng 1994; Badu and O'Brien 2000; Ramesh Babu and Tamizhchelvan 2003; Játiva Miralles 2004). Upon the application of this checklist and statistical tests performed in a second stage, the resulting hypothesis was software type influenced the presence/absence of all surveyed functions and that there were differences in OPACs depending on the software chosen by Latin American countries.

## Research Methodology

A quantitative methodology was chosen to analyze the object of the study. A country and type of library search was therefore done of online OPACs that are available on the Internet. The OPACs investigated by the researchers were free and did not require password access. The resulting directory was refined to exclude unavailable catalogs and those leading only to lists of works. As OPACs were the delimiting units of analysis, Web catalogs belonging to networks or library systems were counted as a single unit even though when they provided access to multiple institutions.

Analysis began with information obtained from a sample of 846 units which was based on the previously mentioned inclusion/exclusion criteria grouped in different strata:

### *Country:*

Argentina: 125 units – 14.8%

Brazil: 147 units – 17.4%

Paraguay: 9 units – 1.1%  
 Uruguay: 16 units – 1.9%  
 Bolivia: 18 units – 2.1%  
 Chile: 71 units – 8.4%  
 Colombia: 64 units – 7.6%  
 Ecuador: 28 units – 3.3%  
 Peru: 55 units – 6.5%  
 Venezuela: 34 units – 4.0%  
 Bahamas: 2 units – 0.2%  
 Barbados: 3 units – 0.4%  
 Belize: 1 unit – 0.1%  
 Costa Rica: 25 units – 3.0%  
 Cuba: 12 units – 1.4%  
 El Salvador: 16 units – 1.9%  
 Guatemala, 19 units – 2.2%  
 French Guiana: 5 units – 0.6%  
 Jamaica: 4 units – 0.5%  
 Mexico: 138 units – 16.3%  
 Nicaragua: 15 units – 1.8%  
 Panama, 12 units – 1.4%;  
 Puerto Rico: 23 units – 2.7%  
 Suriname: 1 unit – 0.1%  
 Trinidad & Tobago: 3 units – 0.4%

*Type of Library:*

National: 14 units – 1.7%  
 Public: 29 units – 3.4%  
 University: 532 units – 62.9%  
 Special: 271 units – 32.0%

*Type of software:*

International: 177 units – 20.8%  
 Regional: 121 units – 14.3%  
 ISIS: 139 units – 16.4%  
 Others (local developments): 109 units – 12.9%  
 Unidentified: 300 units – 35.5%

Due to the considerable variety of software used by units, software type was grouped in 5 categories:

*International:*

Commercial systems developed mainly in the United States and European countries (ALEPH, Unicorn, Alephino, VTLS, InMagic, Glas, Logicat);

*Regional:*

Latin American commercial systems (Pergamum and Potiron, Brazil; Pergamo, Argentina; Alejandría and Ms Info, Venezuela; SIABUC, Mexico; GLIFOS, Guatemala);

*ISIS:*

Considered as a category itself although it is not strictly an integrated software system but rather it is a database management system;

*Others:*

Ad hoc systems or locally developed systems not widely used;

*Unidentified:*

Systems that could not be identified based on observation/use of the OPAC interface.

For data collection, the checklist created by Hildreth (1982) was used after being updated and limited according to current trends to 38 closed questions. This guide included 4 areas:

Area I: Operational control;

Area II: Search formulation control and Access points;

Area III: Output control; and

Area IV: User assistance: information and instruction.

The functions included in each area are listed below:

Area I: *Operational control* – default function, select function, select file, default values, dialogue levels, edit search query, combine commands, refine search statement;

Area II: *Search formulation control* – derived search keys, access to authority catalog, free text search in selected fields, free text search in entire record, restrict search results, Boolean search, Boolean search in selected fields, Boolean search in entire record, relational operators, truncation, proximity operators; *Access points* – author, title and subject search;

Area III: *Output control* – select a format for display, select records, select results order, print results online, save and/or mail results; and

Area IV: *User assistance: information and instruction* – list of files, list of access points, list of commands, index terms, search history, item location, item availability, system messages, procedural prompts, help messages, online tutorials.

Data was collected through direct observation of 846 OPACs between 2006 and 2009. The resulting information was analyzed and interpreted. The percentage of functionalities present was calculated for Mercosur (member and

associate countries) and Latin America countries. After this, capabilities were compared according to type of software through tests of independence. The same test was applied to compare type of software in countries represented in the sample by 30 or more cases. Software types were also compared in different areas using multiple discriminant analysis. It was then possible to establish the characteristics of surveyed OPACs interfaces according to software types in order to determine group membership in accordance with area functionalities. Categories were regrouped in the original variable "Type of software" to improve prediction depending on the use of ILS or DBMS.

## Results and Discussion

As was previously noted, a considerable number of the libraries that were surveyed in Mercosur (member and associate) countries were not operating on an ILS but rather they were using a DBMS belonging, for example, to the ISIS family (Barber 2007a, 2007b, 2008). Despite the negative impact of this (i. e. usage of DBMSs vs. ILSs) on the development of information units and their possibilities to participate in international cooperation, the distribution of ILS systems as compared to that of DBMS, had never been studied before. This is why previously it was believed that only 35.1% of libraries were using an ILS, even though it had been observed that the frequency of use of international and regional software (ILS in both cases) had increased in Latin America to a larger extent than other types of software (Table I). This difference could not reverse the trend already identified in that survey, which is a precedent of this analysis.

On the other hand, it has been verified that many libraries had chosen to adopt either *ad-hoc* systems or locally developed products. In those few libraries which used locally developed products it was noted that those systems had limited functionalities and many of them had not been updated. Based on the methodology used in this research – and examination of OPAC interfaces found on the Internet, it has not been possible to identify the system running behind many OPAC systems. According to the results obtained, the functionalities of these systems were limited, interface design minimalist to a degree which tended to compromise the information retrieval.

The outstanding features of the user interface of Latin American OPACs are explained next and compared with those that were surveyed in previous research that took place in the Mercosur community. In Area I – Operational control (Table 2), results for general functionalities available when starting an OPAC session were quite similar in Mercosur and Latin American libraries. Libraries in both regions showed a predominant trend to provide users on one hand with an initial default function instead of giving them the choice to select the desired function. On the other hand, information was organized into sepa-

Software	Frequency		Percentage	
	Mercosur	Latin Am.	Mercosur%	Latin Am.%
International				
ALEPH	31	100	5.5	11.8
Alephino	1	1	0.2	0.1
Glas	1	3	0.2	0.4
Inmagic	2	3	0.4	0.4
Unicorn	12	22	2.1	2.6
VTLS	6	6	1.1	0.7
Dynix	9	18	1.6	2.1
Webcat	4	5	0.7	0.6
Absysnet	2	8	0.4	0.9
Sabini	1	1	0.2	0.1
Olib	8	9	1.4	1.1
Regional				
Aguapey	2	2	0.4	0.2
Pérgamo	5	5	0.9	0.6
Pergamum	31	31	5.5	3.7
Potiron	3	3	0.5	0.4
Janium	5	10	0.9	1.2
Alejandro	8	10	1.4	1.2
Ms Info	12	12	2.1	1.4
SIABUC	1	33	0.2	3.9
GLIFOS	--	16	--	1.9
ISIS				
MINISIS	1	1	0.2	0.1
OPWISIS	4	6	0.7	0.7
WINISIS	111	131	19.6	15.5
Others	71	111	12.5	13.1
Unidentified	236	299	41.6	35.3
Total	567	846	100.0	100.0

Table 1: Software

rate databases, according to format or library owning the resource. In Latin America, percentages sometimes increased significantly in variables that allowed one to exert control over the search process, like those that made it possible to select dialog levels, edit and refine a search statement or stack commands.

Functionalities	Latin America	Mercosur
Default function	79.1%	79.2%
Select function	32.0%	36.0%
Select file	63.4%	67.5%
Default values	20.9%	22.2%
Dialogue levels	51.9%	46.0%
Edit search query	47.9%	42.2%
Combine commands	31.2%	17.1%
Refine search statement	27.3%	17.6%

Table 2: Area I, operational control

For Area II – Search formulation control and access points (Table 3) it was noted in most cases that Latin American libraries did not give access to the authority catalog even though they had implemented integrated library systems in a proportionally higher percentage of institutions. Yet, the same trend observed in Area I concerning a greater presence of functionalities offering search alternatives through search operators and preset access points, was also verified in Latin American OPACs.

Nevertheless, only 8 out of 14 functionalities analyzed in this area were present in more than 50% of Latin American OPACs and only 7 in more than 50% of OPACs in the Mercosur grouping (Table 3). This proved to be a very significant fact as higher frequencies were obtained in basic applications (full text search or Boolean search) and in basic access points (author, title, subject).

Options that allowed one to refine search results were found in a limited number of user interfaces due to the low presence of functionalities with this capability and the lowest percentage in the use of search delimiters, proximity operators and derived search keys.

The capability of customizing display formats and manipulating search results are functionalities which clearly demonstrate the capacity of OPACs to meet different user demands. As previously seen in operational control and search formulation, percentages indicating the presence of functionalities belonging to this area were higher in Latin American than in Mercosur countries

Functionalities	Latin America%	Mercosur%
Derived search keys	2.4	3.4
Access to authority catalog	8.2	10.9
Free text search in selected fields	84.2	81.0
Free text search in entire record	71.7	62.8
Restrict search results	40.7	32.8
Boolean search	68.0	66.3
Boolean search in selected fields	61.5	57.3
Boolean search in entire record	53.2	45.3
Relational operators	11.3	9.5
Truncation	39.6	33.9
Proximity operators	15.7	14.5
Author	91.1	90.1
Title	90.4	89.2
Subject	85.3	84.7

Table 3: Area II – Search formulation control and access points

(Area III – Output control, Table 4). However, these were slightly higher than 50% in selecting records for display. Online printing, mailing or saving results were implemented in only 35% of the OPACs.

Functionalities	Latin America%	Mercosur%
Select a format for display	44.3	39.0
Select records	71.0	63.5
Select results order	33.5	26.5
Print results online	34.9	34.2
Save and/or mail results	32.0	24.7

Table 4: Area III – Output control

Finally, giving access to the collection through separate databases showed a major trend in Area IV (User assistance: information and instruction, Table 5) in Mercosur countries. In addition, it was verified that less than 50% of Latin

American interfaces included key user assistance functions such as displaying indexes, search history or item availability. Only three functionalities were present in more than half of the OPACs surveyed and the percentage of occurrences of system help messages or search formulation or refining was very low.

Functionalities	Latin America%	Mercosur%
List of files	43.1	50.6
List of access points	63.8	59.4
List of commands	26.2	15.2
Index terms	45.4	38.4
Search history	20.4	13.2
Item location	88.2	86.2
Item availability	48.1	39.5
System messages	68.6	57.0
Procedural prompts	21.7	19.2
Help messages	42.2	33.5
Online tutorials	3.2	3.5

Table 5: Area IV – User assistance: information and instruction

In general, it was found that 23 of 38 functionalities in the libraries that were surveyed in Latin America showed a presence in lower than 50% of the OPACs investigated. A similar trend was found in Mercosur (member and associate countries) where 24 out of 38 functions were available in less than 50% of Web OPAC interfaces (Tables 2, 3, 4 and 5). Deficiencies were found not only in the number of functionalities but in their quality as well. Analysis revealed that the absent functions were exactly those that had the capability of providing feedback and refining strategies. This meant that libraries in the region did not provide their user communities with comprehensive access to their collections because of the limitations of their OPAC resources to retrieve works from their catalogs.

When establishing the relationship between the presence of the studied functionalities in user interface and the type of software used by information units in the Latin American region as a whole (Chi-square test: Type of software vs. Functionalities, Table 6) it was noted that even though fewer in number, international integrated library systems (Table 6, column I) more frequently offered functionalities that led to more precise and user-customized search and retrieval results. On the other hand, applications which were mainly



found in underdeveloped interfaces were especially predominant in non identified systems (Table 6, column U). These peculiarities led to significantly high values ( $p < 0.0001$ ) in 31 out of 38 functionalities when applying a chi-square test in the sample to verify the association between the above mentioned variables.

In areas linked to operational control and output, the presence/absence of all functionalities was directly associated with the type of software. In Area II, author, title and subject access points did not show any association as they are usually provided access points in both ILS and DBMS. Generally, the use of derived search keys, even though less frequent, was not associated with the type of software. In Area IV, neither search commands nor tutorials were frequently offered as a help option. This proved to be non-significant after applying the test of independence.

The presence of an initial default function was clearly associated to systems classified under the unidentified software category. On the contrary, the capability of selecting the desired function or database was predominant in international software. In this case, it was notable that larger differences were found in relation to "Regional", "ISIS" and "Others". Differences between international software and all others were even greater in the other functionalities belonging to this area. However, some peculiarities could be observed such as a more frequent presence of default values for the session, the possibility to edit and refine the search statement or to combine commands especially in "ISIS" and "Unidentified" over "Regional" and "Others" which were associated to a very low presence of these functionalities.

In Area II – access to the authority catalog was, in this sample, first associated with regional software and secondly, with international software being nearly absent in the other strata. Full text search in selected fields was a highly present functionality in every stratum even though it was particularly associated to the unidentified software. International software was clearly ahead of the rest in all other functionalities. Full text search in entire record, restriction of search results, the use of Boolean operators in selected fields and truncation were functions associated with "Unidentified" and "ISIS" strata over "Regional" and "Others". The implementation of search delimiters and proximity operators was found in regional software and less in each one of the other strata reaching the lowest percentage in "Unidentified" software.

Regarding system flexibility to allow users to customize their results display as well as using them according to their needs, the international software was considerably advanced over the rest of the strata in relation to printing, saving and mailing results. Distance decreased between this stratum and "Unidentified" when evaluating the behavior of the function "Select records for display" which, moreover, obtained the higher results for this area. Strata "Regional", "ISIS" and "Others" distinguished from each other in descending order in all the functionalities in the area except in "Sort results for display"

Area I	I	R	IS	O	U	<i>p</i>
Default function	16.7	9.5	14.2	8.4	27.1	0.003
Select function	12.8	7.4	4.7	3.2	10.4	0.0001
Select file	19.6	10.4	12.3	6.3	19.1	0.0001
Default values	11.8	1.3	5.4	1.3	4.9	0.0001
Dialogue levels	22.6	11.2	7.4	4.3	8.0	0.0001
Edit search query	21.3	4.3	6.8	2.9	11.9	0.0001
Combine commands	16.5	3.2	3.5	1.4	4.3	0.0001
Refine search statement	19.7	1.3	3.8	0.8	3.0	0.0001
Area II						
Access to authority catalog	4.0	4.6	0.3	0.8	0.5	0.0001
Free text search in selected fields	24.5	13.9	11.5	9.2	27.7	0.0001
Free text search in entire record	23.3	11.5	12.6	6.7	16.6	0.0001
Restrict search results	22.5	4.9	5.1	3.0	7.6	0.0001
Boolean search	23.3	11.7	14.2	6.2	15.7	0.0001
Boolean search in selected fields	22.9	10.9	11.9	5.5	13.8	0.0001
Boolean search in entire record	21.6	8.6	10.5	4.3	8.6	0.0001
Relational operators	6.6	2.4	1.4	1.1	0.9	0.0001
Truncation	18.2	4.6	7.6	2.7	7.0	0.0001
Proximity operators	12.2	2.1	1.9	1.6	1.1	0.0001
Area III						
Select a format for display	20.4	10.2	7.7	4.6	6.2	0.0001
Select records	23.6	13.4	8.1	7.2	19.8	0.0001
Select results order	21.1	5.4	1.9	3.2	3.3	0.0001
Print results online	13.0	8.6	5.9	2.4	7.5	0.0001
Save and/or mail results	20.6	4.8	2.4	2.4	4.0	0.0001
Area IV						
List of files	12.3	8.5	9.0	4.9	11.0	0.0001
List of access points	21.9	10.3	8.8	7.1	16.1	0.0001
Index terms	20.9	7.8	9.0	2.5	6.8	0.0001
Search history	19.0	0.6	1.7	1.0	1.9	0.0001
Item location	24.6	14.2	14.6	9.8	26.7	0.0001
Item availability	21.4	10.1	3.4	5.8	10.4	0.0001
System messages	23.5	10.8	7.9	7.3	17.0	0.0001
Procedural prompts	8.7	3.8	5.2	1.1	6.3	0.0001
Help messages	20.9	6.2	6.3	3.9	6.0	0.0001

Table 6: Chi-square test: Type of software vs. Functionalities

I = International R = Regional IS = ISIS O = Others U = Unidentified

where “Others” had a higher percentage of presence. Thus, stratum “Unidentified” got higher results than “ISIS” and “Others” in 4 out of 5 functionalities.

Area IV facilitated the identification of variables that were highly associated with the type of software implemented. Functionalities such as browsing index terms, giving access to search history, reporting item availability and providing online help were found to be considerably different between “International” and the other categories. Besides, the presence of all functionalities involved in the area was found in all with the exception of “Item location” which was associated with international software. There even was observed a closer relationship between international software and unidentified software than with the rest in the variables “List of files”, “List of access points”, “System messages” and “Procedural prompts”.

In the four areas studied, international software behaved homogeneously with regard to the presence of functionalities in the OPAC interface. In the other strata their presence could be found at a lower level. A dissimilar and heterogeneous behavior was observed in the categories “Regional”, “ISIS”, “Others” and “Unidentified”. There was also a very low presence of functionalities which could improve and refine searches.

Moreover, highly significant differences ( $p < 0.0001$ ) were verified in countries represented by 30 or more units in relation to the type of software they had adopted. In correspondence with the association between this variable and applications in OPACs interfaces, it was feasible to infer that countries with a higher rate of international integrated library systems offered users a greater number of capabilities (Table 7).

Mexico was the country with the highest rate of integrated library systems followed by Brazil (where regional software reinforced this characteristic) and Colombia was third. Argentina was at the opposite end with a high use of “ISIS” and “Unidentified” software which clearly restricted online searches through the OPAC. Chile, like Colombia, was in an intermediate position with respect to most of the proposed types of software and even slightly better than Brazil regarding the use of international software. Peru and Venezuela were in a poor situation concerning the use of ILS.

These results led the research group to evaluate the convenience of using discriminant analysis to see the relationship among the four dimensions under study (represented by the frequency of appearance of the attributes of each one of the defined areas) with the “type of software” variable.

It was noted that 55.4% of the original grouped cases had been well classified, according to the proposed categories of software (Figure 1 and Table 8). Percentages that were obtained showed that “International” as well as “Unidentified” software were clearly different from the rest. It was therefore concluded that the reason for this was that the former (International) were ILS that included most of the analyzed functions. Instead, software that could not be identified during the data collection period usually had interfaces with minimal

Type of Software	Argentina	Brazil	Chile	Colombia	Peru	Venezuela	Mexico	Total
International	1.3	3.0	3.2	3.8	0.5	0.3	12.5	24.4
Regional	0.6	5.4	0.2	0.8	0	3.2	4.1	14.2
ISIS	9.3	2.5	1.7	1.1	1.7	0	0.3	16.7
Others	0	4.9	1.9	1.3	0.6	0.5	1.4	10.6
Unidentified	8.5	7.4	4.3	3.2	5.8	1.4	3.5	34.1
Total	19.7	23.2	11.2	10.1	8.7	5.4	21.8	100

Table 7: Type of software vs. Countries

functionalities and a performance that was quite different from properly developed ILS or DBMS systems.

Even when figures showed that some “ISIS” software designs had achieved some characteristics that were similar to an ILS interface, 74.1% was near the lowest performance category. Likewise, the category “Others” included several software designs that could have been an ILS as well as a DBMS but with a different level of complexity. The analyzed cases were associated with the characteristics of the categories: “International” and “Regional” in a lower percentage and “Unidentified” in a higher percentage. It was therefore concluded that most of these initiatives had not expanded their functionalities.

Besides, it was possible to verify that 51.2% of regional developments fell into categories represented by ILS while 48.8% fell into the “Unidentified” category. These percentages showed that the region was in an intermediate situation that included not only cases with the necessary capability to support solid designs but initiatives with limited operative possibilities as well.

However, when analyzing the situation in Mercosur member and associate countries (Figure 2 and Table 9) 56.9% of regional software was correctly classified and 23.1% had blended “ISIS” and DBMS. This displayed a greater presence of functionalities in South American designs over those of Central American countries with fewer capabilities.

With the aim of improving prediction, “ISIS” and “Others” under the variable “Type of Software” were merged into one group (“ISIS” + “Others”) with discriminant analysis being once again performed (Table 10). It was then observed that the percentage of those correctly classified improved in this category and that regional software had moved towards the new group. The percentage of software classified as “International” kept constant while there was a migration of those classified as “Unidentified” towards “ISIS” + “Others”. Even so, the percentage of cases correctly grouped (57.1%) rose slightly in relation to the initial cluster.

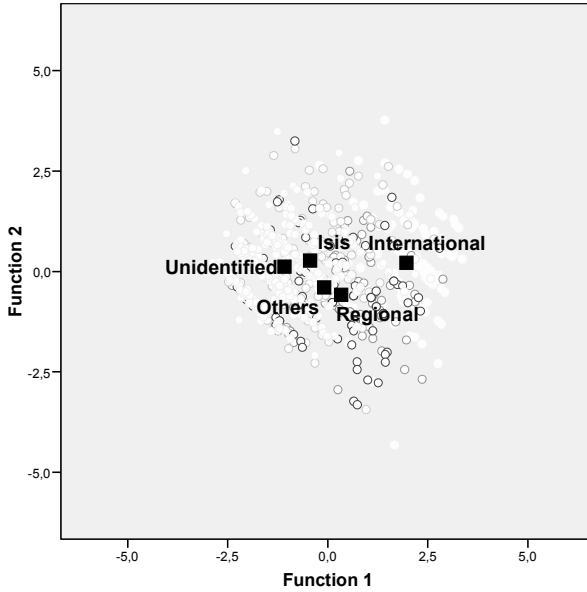


Figure 1: Discriminant analysis, Latin America – 5 software categories

	Software categories	Predicted group membership					
		I	R	IS	O	U	Total
Frequency	International	151	11	2	0	13	177
	Regional	24	38	0	0	59	121
	ISIS	26	4	6	0	103	139
	Others	14	27	1	0	67	109
	Unidentified	14	8	4	0	274	300
Percentage	International	<b>85.3</b>	6.2	1.1	,0	7.3	100.0
	Regional	<b>19.8</b>	<b>31.4</b>	.0	,0	<b>48.8</b>	100.0
	ISIS	<b>18.7</b>	2.9	<b>4.3</b>	,0	<b>74.1</b>	100.0
	Others	<b>12.8</b>	<b>24.8</b>	.9	<b>,0</b>	<b>61.5</b>	100.0
	Unidentified	4.7	2.7	1.3	,0	<b>91.3</b>	100.0

Table 8: Discriminant analysis, Latin America – 5 software categories

55.4% of originally grouped cases were correctly classified.

I = International R = Regional IS = ISIS O = Others U = Unidentified

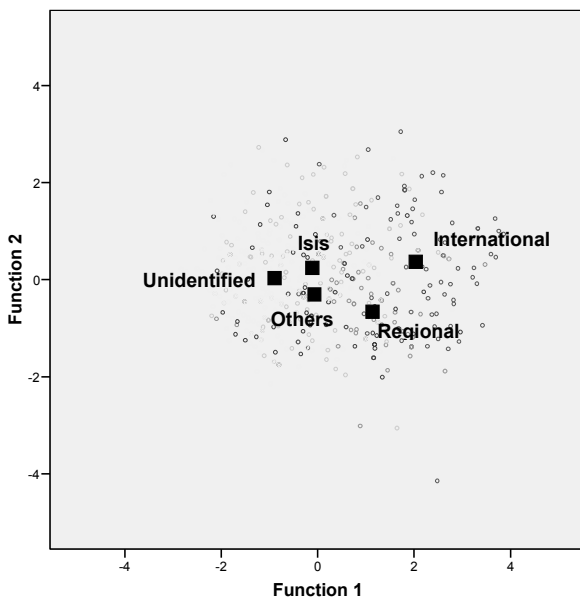


Figure 2: Discriminant analysis, Mercosur – 5 software categories

	Software categories	Predicted group membership						Total
			I	R	IS	O	U	
Frequency	International	54	11	6	0	6	77	
	Regional	6	37	15	0	7	65	
	ISIS	11	7	25	1	73	117	
	Others	3	15	6	0	47	71	
	Unidentified	4	6	13	1	213	237	
Percentage	International	70.1	14.3	7.8	.0	7.8	100.0	
	Regional	9.2	56.9	23.1	.0	10.8	100.0	
	ISIS	9.4	6.0	21.4	.9	62.4	100.0	
	Others	4.2	21.1	8.5	.0	66.2	100.0	
	Unidentified	1.7	2.5	5.5	.4	89.9	100.0	

Table 9: Discriminant analysis, Mercosur – 5 software categories

58% of originally grouped cases were correctly classified.

I = International R = Regional IS = ISIS O = Others U = Unidentified

	Software categories	Predicted group membership				Total
		I	R	IS + O	U	
Frequency	International	149	6	16	6	177
	Regional	17	13	56	35	121
	ISIS + Others	32	12	77	127	248
	Unidentified	11	1	44	244	300
Percentage	International	84.2	3.4	9.0	3.4	100.0
	Regional	14.0	10.7	46.3	28.9	100.0
	ISIS + Others	12.9	4.8	31.0	51.2	100.0
	Unidentified	3.7	.3	14.7	81.3	100.0

Table 10: Discriminant analysis, Latin America – 4 software categories

57.1% of originally grouped cases were correctly classified.

I = International R = Regional IS = ISIS O = Others U = Unidentified

The level of ambiguity that was observed after conducting the first and second clustering, began to disappear when categories “ISIS”, “Others” and “Unidentified” were grouped (Figure 3 and Table 11). The percentage of software correctly classified rose to 78.1%. “International” software showed a slight variation even when a 15.8% (previously dispersed) was identified, due to their functionalities, they became associated with the new group. The most significant fact was observed in the regional software category where the regrouped cluster obtained the 88.4%.

There was strong contrast in user interface in regional software when the same statistical analysis was applied to the area restricted to Mercosur member and associate countries (Figure 4 and Table 12). First, software that classified correctly rose to 83.4% in the original cluster; secondly, 41.5% of regional software classified in their actual group.

A final regrouping was proposed (Table 13) between integrated software on one side (“International” + “Regional”) and systems whose performance was non-integrated on the other (“ISIS” + “Others” + “Unidentified”), and it was confirmed that 83% of cases were correctly classified. This percentage was higher in the “Non-integrated” group (91.2%). Besides, it was possible to distinguish that the 32.2% performance of the integrated software was not “integrated”. It was therefore deduced that these cases belonged to “Regional” software as they had been previously wrongly classified.

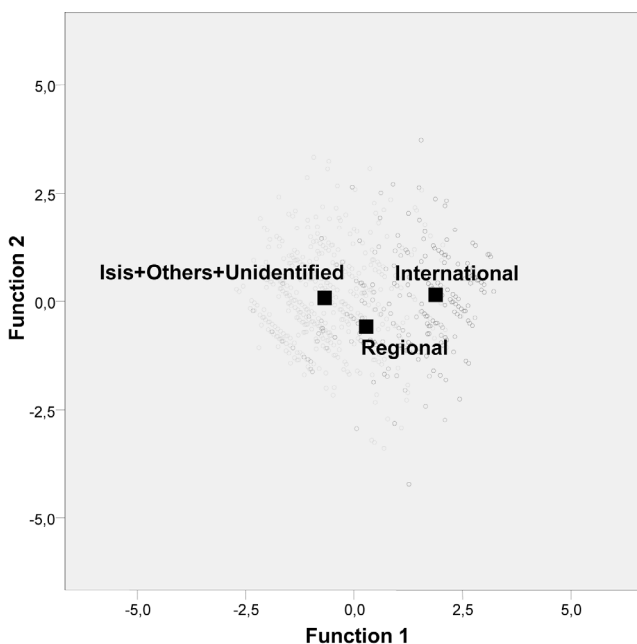


Figure 3: Discriminant Analysis, Latin America – 3 software categories

	Software categories	Predicted group membership		IS + O + U	Total
		I	R		
Frequency	International	147	2	28	177
	Regional	10	4	107	121
	IS + O + U	34	4	510	548
Percentage	International	83.1	1.1	15.8	100.0
	Regional	8.3	3.3	88.4	100.0
	IS + O + U	6.2	.7	93.1	100.0

Table 11: Discriminant Analysis, Latin America – 3 software categories

78.1% of originally grouped cases were correctly classified.

I = International R = Regional IS = ISIS O = Others U = Unidentified



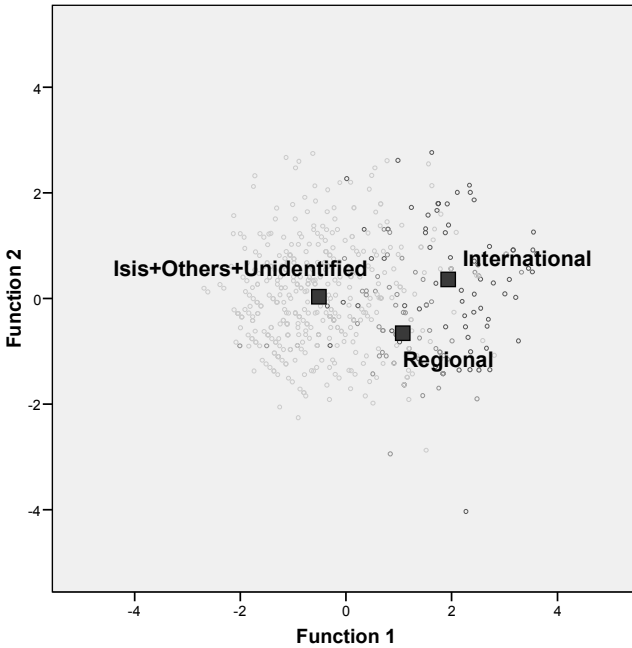


Figure 4: Discriminant Analysis, Mercosur – 3 software categories

	Software categories	Predicted group membership			Total
		I	R	IS + O + U	
Frequency	International	53	7	17	77
	Regional	5	27	33	65
	IS + O + U	17	15	393	425
Percentage	International	68.8	9.1	22.1	100.0
	Regional	7.7	41.5	50.8	100.0
	IS + O + U	4.0	3.5	92.5	100.0

Table 12: Discriminant Analysis, Mercosur – 3 software categories

83.4% of originally grouped cases were correctly classified.

I = International R = Regional IS = ISIS O = Others U = Unidentified

	Software categories	Predicted group membership		Total
		I	N I	
Frequency	Integrated	202	96	298
	Non integrated	48	500	548
Percentage	Integrated	67.8	32.2	100.0
	Non integrated	8.8	91.2	100.0

Table 13: Discriminant Analysis, Latin America – 2 software categories

83% of originally grouped cases were correctly classified.

I = Integrated N I = Non Integrated

This geographical study revealed the prevalence of systems that were seriously disadvantaged to fulfill users’ needs for information, searching and retrieval. The study also indicated all the difficulties that libraries face in order to install functional ILS systems. These difficulties were present not only in the libraries surveyed but they are also generally present throughout Latin American countries. The study indicates what libraries in the region that were researched have to overcome in order to offer local solutions in the light of international developments.

## Conclusion

The survey indicated that in Latin American libraries, most of the functionalities selected for this study were absent in the user interfaces of OPACs. When comparing by type of software through multiple discriminant analysis, the previously observed association between functionalities and type of software became more pronounced. Additionally, it was also possible to verify the ability of the selected variables to describe and distinguish between identified software categories. Subsequently, it was possible to acknowledge the capability of functionalities and to predict the type of software. Therefore, it could be objectively deduced that the software used by Latin American libraries influences the search and retrieval services offered to users through their OPACs.

Additionally, it was frequently observed that information units had not fully developed software functionalities and in most cases, they had difficulties with implementing appropriate library management systems. After comparing the results of discriminant analysis in Mercosur and Latin American countries, it was also noticed that, even when the general trend was similar for the Latin American region, there were some differences between South and Central America in interface functionalities of locally developed OPACs. Since the international trend in libraries is towards the design of systems under the Web 2.0 philosophy on the basis of ILS, based on the variety of options observed in the implementation of this type of software in the countries surveyed it would be useful for institutions in the countries surveyed to bear in mind these findings in any plans they may have to migrate to OPAC 2.0.

The difficulties that were found reflected the limitations faced by researchers, teachers, government officials and citizens to identify the corpus of knowledge produced and/or available in the region. If libraries are considered a place to access knowledge and institutions that can guarantee an ethical and democratic use of information which can foster scientific, technical and cultural development, some attention will have to be paid to software and functionalities to be offered not only in OPACs but also in future portals and Web 2.0 OPACs that provide integrated and collaborative access to information resources.

## References

- Abadal Falgueras, E. "Elementos para la evaluación de interfaces de consulta de bases de datos." *El Profesional de la Información*, 11.5 (2002): 349-360.
- Arant, W. and Payne, L. "The common user interface in academic libraries: Myth or reality?" *Library Hi Tech*, 19.1 (2001): 63-73.
- Ayres, F. H., Nielsen, L. P. S. and Ridley, M. J. "BOPAC2: A new concept in OPAC design and bibliographic control." *Cataloging and Classification Quarterly*, 28.2 (1999): 17-44.
- Badu, B. R. and O'Brien, A. "Web OPAC interfaces: An overview." *The Electronic Library*, 18.5 (2000): 316-327.
- Barber, E., et al. "Information society and information technology: The situation of the public libraries in Buenos Aires city and surrounding areas, Argentina." *International Information and Library Review*, 38.1 (2006): 1-14.
- Barber, E., et al. "Los catálogos en línea de acceso público disponibles en entorno Web en Argentina y Brasil: diagnóstico de situación." La interdisciplinariedad y la transdisciplinariedad en la organización del conocimiento científico = Interdisciplinarity and transdisciplinarity in the organization of scientific knowledge. Actas del VIII Congreso ISKO – España, León 18, 19 y 20 de Abril de 2007. León: Universidad de León, (2007a).
- . "Los catálogos en línea de acceso público del Mercosur como soporte a la innovación." XII Seminario Latino – Iberoamericano de Gestión Tecnológica – ALTEC 2007, Buenos Aires, 26-28 de 2007. (2007b).

- Barber, E., et al. "Los catálogos en línea de acceso público del Mercosur disponibles en entorno Web." *Información, Cultura y Sociedad*, 18. 2008.  
[www.scielo.org.ar/pdf/ics/n18/n18a03.pdf](http://www.scielo.org.ar/pdf/ics/n18/n18a03.pdf) [Mar. 2011].
- Bates, M. J. *OPAC Use and Users: Breaking Out of the Assumptions*. Chicago: American Library Association, 1991. (Occasional Papers, n. 9)
- Beaulieu, M. "Interaction in information searching and retrieval." *Journal of Documentation*, 56.4: (2000): 431-439.
- Beaulieu, M. and Borgman, C. L. "A new era for OPAC research: Introduction to special topic issue on current research in online public access systems." *Journal of the American Society for Information Science*, 47.7 (1996): 491-492.
- Beheshti, J. "The future of OPAC interfaces." ALA/CLA Annual Conference, Optimal Design Considerations for Web OPAC Interfaces. A program sponsored by LITA, June 22, 2003, Toronto. 2003. [www.calstatela.edu/library/ALA/ala-claOPAC.htm](http://www.calstatela.edu/library/ALA/ala-claOPAC.htm) [Mar. 2011].
- Beheshti, J., Large, V. and Bialek, M. "PACE: A browsable graphical interface." *Information Technology and Libraries*, 15.4 (1996): 231-240.
- Borgman, C. L. "Why are online catalogs still hard to use?" *Journal of the American Society for Information Science*, 47.7 (1996): 493-503.
- Boss, R. W. *Library Portals*. Chicago: American Library Association. 2005.  
[www.ala.org/ala/pla/plapubs/technotes/librarywebportals.htm](http://www.ala.org/ala/pla/plapubs/technotes/librarywebportals.htm) [Mar. 2011].
- Byrum, J. D. "Online catalogs and library portals in today's information environment." *Journal of Library Administration*, 43.1/2 (2005): 135-154.
- Carlyle, A. "Ordering author and work records: An evaluation of collocation in online catalog displays." *Journal of the American Society for Information Science*, 47.7 (1996): 538-554.
- Carlyle, A and Timmons, T. *Default Record Displays in Web-Based Catalogs*. Chicago: University of Chicago. 2002.  
[http://faculty.washington.edu/acarlyle/Papers/default\\_displays.htm](http://faculty.washington.edu/acarlyle/Papers/default_displays.htm) [Mar. 2011].
- Cherry, J. M. and Cox, J. P. *World Wide Web displays of bibliographic records: An evaluation*. 1996.  
<http://www3.fis.utoronto.ca/research/programs/displays/caispck1.htm> [Mar. 2011].
- Chiang, D. "Comparison of direct manipulation, menu selection, and command language as interaction styles for online public access catalogs." Dillon, M., ed. *Interfaces for Information Retrieval and Online Systems: The State of the Art*. New York: Greenwood Press, 1991.
- Clifford, A. L. "The use of heuristics in user interfaces for online information retrieval systems." ASIS '87, Proceedings of the 50<sup>th</sup> ASIS Annual Meeting, 24 (1987): 148-152.
- Culkin, P. B. "Rethinking OPACS: The design of assertive information systems." *Information Technology and Libraries*, 8.2 (1989): 172-177.
- Delsey, T. "The library catalog in a networked environment." Proceedings of the Bicentennial Conference on Bibliographic Control for the New Millennium: Confronting the Challenges of Networked Resources and the Web. Washington, D.C.: Cataloging Distribution Service, 2001. [www.loc.gov/catdir/bibcontrol/delsey\\_paper.html](http://www.loc.gov/catdir/bibcontrol/delsey_paper.html) [Mar. 2011].
- Dorner, D. G. and Curtis, A. M. *A comparative review of common user interface software products for libraries*. 2003.  
[www.natlib.govt.nz/catalogues/library-documents/common-user-interface-software](http://www.natlib.govt.nz/catalogues/library-documents/common-user-interface-software) [Mar. 2011].

- Dowling, T. "The World Wide Web meets the OPAC: from catalogs to Gateway." Briefings from the CFFC, (9), A-D. Published by the American Library Association as a supplement to the ALCTS Newsletter, 8.2 (1997).
- Frost, C. O. "Next generation online public access catalogs: Redefining territory and roles." *Advances in Library Automation and Networking*, 5 (1994): 1-41.
- Gremett, P. "Utilizing a user's context to improve search results." *Journal of the American Society for Information Science and Technology*, 57.6 (2006): 808-812.
- International Federation of Library Associations and Institutions. *Guidelines for Online Public Access Catalogue (OPAC) Displays*. Draft for worldwide review. 2003. [www.ifla.org/VII/s13/guideopacguide03.pdf](http://www.ifla.org/VII/s13/guideopacguide03.pdf) [Mar. 2011].
- Henry, H. K. "Human-computer interfaces and OPACs: Introductory thoughts related to INNOPAC." *Library Hi Tech*, 9.2 (1991): 63-68.
- Herrero-Solana, V. and Moya-Aneón, F. de. "Bibliographic displays of Web-based OPACs: Multivariate analysis applied to Latin-American catalogues." *Libri*, 51.2 (2001): 75-85.
- Hildreth, C. R. *Online Public Access Catalogs: The User Interface*. Dublin, OH: OCLC, 1982.
- "Online public access catalogs." *Annual Review of Information Science and Technology*, 20 (1985): 233-285.
  - "Beyond Boolean: Designing the next generation of online catalogs." *Library Trends*, 35.4(1987): 647-667.
  - "Online library catalogues as information retrieval systems: What can we learn from research?" Yates-Mercer, P. A., ed. *Future Trends in Information Science and Technology*. Proceedings of the Silver Jubilee Conference of the City University's Department of Information Science, January 16, 1987. London: Taylor Graham, 1988.
  - (1995) "On-line catalog design models: Are we moving in the right direction?" A report prepared for the on Council Library Resources. 1995. <http://www.ou.edu/faculty/H/Charles.R.Hildreth/clr-five.html> [Mar. 2011].
  - "Accounting for users' inflated assessments of on-line catalogue search performance and usefulness: An experimental study." *Information Research*, 6.2. 2001. <http://informationr.net/ir/6-2/paper101.html> [Mar 2011].
- IFLA. *IFLA Statement of International Cataloguing Principles*. 2009. <http://www.ifla.org/publications/statement-of-international-cataloguing-principles> [Mar. 2011].
- Játiva Miralles, M. V. *El Profesional de la Información*, 13.1 (2004): 28-46.
- Kaske, N. K. and Ferguson, D. *On-Line Public Access to Library Bibliographic Data Bases: Developments, Issues and Priorities*. Columbus, OH: Research Libraries Group, OCLC, (1980).
- Komlodi, A., Soergel, D. and Marchionini, G. "Search histories for user support in the user interfaces." *Journal of the American Society for Information Science and Technology*, 57.6 (2006): 803-807.
- Large, J. A. and Beheshti, J. "OPACs: A research review." *Library and Information Science Research*, 19.2 (1997): 111-133.
- Larson, R. R., McDonough, J., O'Leary, P. and Kuntz, L. "Cheshire II: Designing a next-generation online catalog." *Journal of the American Society for Information Science*, 47.7 (1996): 555-567.
- Library of Congress. Portals Applications Issues Group. 2005. [www.loc.gov/catdir/lcpaig](http://www.loc.gov/catdir/lcpaig) [Mar. 2011].

- Martínez-Arellano, F. F. "User attitudes and behavior before and after the implementation of an online catalog", *The International Information & Library Review*, 28.3 (1996): 275-287.
- Matthews, J. R. (1982) *Public Access to Online Catalogs: A Planning Guide for Managers*. Weston, CT: Online, 1982.
- McGarry, D. and Svenonius, E. "More on improved browsable displays for online subject access." *Information Technology & Libraries*, 10.3 (1991): 185-191.
- Meadow, C. T., et al. *Text Information Retrieval Systems*. 3<sup>rd</sup> ed. Amsterdam: Elsevier, Academic Press, 2007.
- Ortiz Repiso, V. and Moscoso, P. "Web-based OPACs: Between tradition and innovation." *Information Technology and Libraries*, 18.2 (1999): 68-77.
- Ramesh Babu, B. and Tamizhchelvan, M. "An investigation into the features of OPACs in Tamil Nadu (India)." *Library Review*, 52.5/6 (2003): 257-267.
- Rodríguez Yunta, L. and Giménez Toledo, E. "Lo que los usuarios piensan de las bases de datos bibliográficas y no se atreven a decir. ¿Es posible un diseño centrado en el usuario?" Preprint de la primera versión de la Comunicación enviada a Infogestión, IX Jornadas Españolas de Documentación, Fesabid, 14-15 Abril, 2005. 2005. <http://eprints.rclis.org/handle/10760/5783> [Mar. 2011].
- Shneiderman, B. *Designing the User Interface: Strategies for Effective Human-Computer-Interaction*. 3<sup>rd</sup> ed., Reading, Massachusetts: Addison-Wesley, 1998.
- Stevens, N. D. "Looking back at looking ahead, or 'The catalogs of the future revisited' with additional speculation." *Information Technology and Libraries*, 17.4 (1998): 188-190.
- Thomas, S. E. "The catalog as portal to the Internet." Bicentennial Conference on Bibliographic Control for the New Millennium: Confronting the Challenges of Networked Resources and the Web. 2000. [www.loc.gov/catdir/bibcontrol/thomas\\_paper.html](http://www.loc.gov/catdir/bibcontrol/thomas_paper.html) [Mar. 2011].
- Villén-Rueda, L., Senso, J. A. and Moya-Anegón, F. de "The use of OPAC in a large academic library: A transactional log analysis study of subject searching." *Journal of Academic Librarianship*, 33.3 (2007): 327-337.
- Wildemuth, B. M. "Evidence-based practice in search interface design." *Journal of the American Society for Information Science and Technology*, 57.6 (2006): 825-828.
- Williams, B. K., Sawyer, S. C. and Hutchinson, S. E. *Using information technology: A practical introduction to computers and communications*. Chicago: Irwin, 1995.
- Williams, M. E., et al. (1986) "Comparative analysis of online retrieval interfaces." Proceedings of the 49<sup>th</sup> ASIS Annual Meeting, 23 (1986): 365-370.
- Williamson, N. J. "Is there a catalog in your future? Access to information in the year 2006." *Library Resources & Technical Services*, 26.2 (1982) 122-135.
- Yee, M. M. "System design and cataloguing meet the user: User interfaces to online public access catalogs." *Journal of the American Society for Information Science*, 42.2 (1991): 78-98.
- . (1998) "Guidelines for OPAC displays." Prepared for the IFLA Task Force on Guidelines for OPAC Displays. 1998 <http://archive.ifla.org/VII/s13/guide/opacguide03.pdf> [Mar. 2011].
- Yee, M. M. and Layne, S. S. *Improving online public access catalogs*. Chicago: American Library Association, 1998.
- Zumer, M. and Zeng, L. "Comparison and evaluation of OPAC end-user interfaces." *Cataloging & Classification Quarterly*, 19.2 (1994): 67-98.



# Open Access and A2K: Collaborative Experiences in Latin America

Nancy Gómez

*E-LIS Editor for Argentina, LLAAR discussion list coordinator  
Teaching Assistant, Universidad Carlos III, Madrid, Spain  
and*

Paola C. Bongiovani

*Researcher and faculty member at Universidad Nacional de Rosario,  
Argentina*

*Consultant at Ministerio de Ciencia, Tecnología e Innovación Productiva  
de Argentina – technical point person for the “Federated Network of  
Institutional Repositories of Scientific Documentation in Latin America”  
Project*

*LLAAR discussion list coordinator*

## Introduction

Today, information is at the heart of all economies. Modern societies must keep pace with the growth of knowledge. This has become crucial for sustainable development. But, it is also important to note that restrictions exist with regard to accessing knowledge, with large numbers of people in the world who are being left behind in terms of having access to knowledge. It is critical to overcome these barriers in any possible way. While the Internet and digital technologies facilitate access to knowledge, at the same time there are certain barriers that prevent access. An alternative way to restore the lost equilibrium is the development of resources that favor open access to knowledge.

In this chapter the access to knowledge (A2K) movement is based on definitions coined by theorists Benkler (2006), Balkin (2010) and Shaver (2007), who advance the concept of human development and equal access to knowledge as distributive justice. This chapter focuses on the role of Latin American countries in the WIPO development agenda and the role of library associations against excessive intellectual property regulations which impose barriers to access and ultimately the creation of new knowledge. The concepts of A2K to Open Access (OA), showing how OA can restore knowledge as a public good on a global scale, are also discussed in this chapter.



The chapter also provides an account of the growth of global OA, portrays the Latin American situation and takes into account OA indicators from Argentina, Chile and Brazil. It also reports on international and regional projects, describing several collaborative projects developed in the region. The results of a survey to members of the LLAAR<sup>1</sup> discussion list are presented. Finally, the chapter arrives at conclusions that integrate the concepts of A2K, OA, collaborative work, and development and growth of Open Access in the region.

## Access to Knowledge (A2K)

The A2K movement focuses on enhancing human capabilities to access, use and contribute to (create) knowledge. The concept follows the human development paradigm as articulated by economist Amartya Sen (Shaver 2007) where the goal of economic development is that all human beings can enjoy fundamental capabilities. Therefore, knowledge is considered a primary good of crucial value for human wellbeing, beyond the inevitable cultural and individual diversity regarding what kind of knowledge is valuable (Shaver 2007). Jack Balkin (2010) defines the A2K movement as a set of public policies and private initiatives that encourage growth, dissemination and sharing of knowledge around the world. A2K is a matter of distributive justice, as it seeks to provide equal opportunities in different countries and their societies. Yochai Benkler (2006) identifies different types of “knowledge” for the purposes of A2K.

The first type involves information-embedded goods, such as vaccines and software, which require scientific or technical knowledge for their creation. The second type refers to information-embedded tools, used to create knowledge and information-embedded goods, including scientific research methods, the Internet, and other communication technologies. A third type deals with information like data, scientific outputs and news. The fourth type entails human knowledge, i.e. attained education, specific abilities and expertise as well as tacit knowledge. Facilitating broad access and the use of each of these types of knowledge will promote the development and freedom of human beings (Benkler 2006; Balkin 2010).

One of the difficulties the A2K movement tries to overcome has to do with intellectual property laws. At present, intellectual property (IP) regulations create barriers to A2K. This is a universal policy issue of our time. In 2004, stemming from the discontent of public interest groups on IP, governments from Argentina and Brazil raised a proposal to the World Intellectual Property Organization (WIPO). They succeeded in creating what is known as a “development agenda” with a focus on non-proprietary approaches (NON IP)

---

1 Lista Latinoamericana de Acceso Abierto y Repositorios

based on creative innovation models such as open source software and open genome research.

Both Kapczynski (2008) and Fernandez Molina (2008) highlight the role played by Argentina and Brazil in this matter. To lend support to their proposal, a meeting was organized in Geneva, Switzerland which was attended by politicians and business representatives, along with participants with interests in areas such as access to low cost medicines, free software, the Creative Commons, open science and open edition campaigns. The participants at the meeting produced a document entitled the “Geneva Declaration on the Future of the World Intellectual Property Organization”. Signatories postulated that “the world is facing a crisis in the governance of knowledge, technology, and culture”, with an emphasis on copyright barriers. The document reported on the lack of access to low cost medicines, global inequities in access to education and technology, obstacles to continued growth in innovation, the progressive expropriation of the public domain and a concentration of anti-competitive knowledge industries.

The declaration was signed by 493 individuals, 61 signatures from Latin Americans (12%) and 7 institutional representatives, led by the International Federation of Library Associations and Institutions (IFLA), and four library associations from the United States: the American Library Association (ALA), the Special Libraries Association (SLA), the American Association of Law Libraries (AALL) and Association of Research Libraries (ARL). The remaining two signatures were from Doctors Without Borders and Consumers International (CI).

The document was sent to other countries, and, as a result, twelve other countries were added. Fourteen countries, including eight from Latin America (Argentina, Bolivia, Brazil, Cuba, the Dominican Republic, Ecuador, Peru and Venezuela); six from Africa (Egypt, Iran, Kenya, Sierra Leone, South Africa and Tanzania) formed the group that became known as “The Group of Friends of Development” (FOD) (Fernandez Molina 2008). The group has held a number of meetings, with no substantial results thus far.

The signing of this declaration by IFLA and the American Library Association emphasizes the role of libraries as knowledge intermediaries who make every effort to provide equal access to information. Their signatures also indicate that libraries see their responsibility as suppliers and guardians of access to information as a public good (Pessach 2007). IFLA showed its commitment to the issue from the beginning. Moreover, Ellen Tise, IFLA president, 2009-2011, chose the theme “Libraries Driving Access to Knowledge” as the critical strategy for this association during her tenure in office (Tise 2008).

In addition, the NGO Consumers International ([www.consumersinternational.org/our-work/copyright](http://www.consumersinternational.org/our-work/copyright)), in support of the Geneva Declaration, has issued two reports since 2009, known as the Intellectual Property (IP)

Watchlist reports. The reports evaluate how balanced a country's copyright laws are; they review whether the laws are applied in ways that affect consumer interests; and, whether the country promotes the exchange of knowledge in ways that are not subject to exclusive rights. This work was done through a survey, which includes sixty criteria that were developed and weighed by international experts. This report is taken into account when analyzing the situation in Latin America.

As it is commonly known, modifications of international policy-making processes are lengthy and time consuming. For this reason, institutions and non-government agencies are taking steps, according to their abilities, to question IP regulations, challenge barriers and offer some strategies toward the A2K movement, such as Open Access and Open Source.

Developing countries have raised these issues before WIPO, because they can express more openly their unequal access to medicines, information and other issues that are regulated by over-protective intellectual property laws that give developing countries few advantages. This harks back to the concept of distributive justice as advanced by Benkler (2006) and to Ellen Tise (2008) who said that "knowledge generation is essential to the process of development".

## A2K and OA

One of the most advanced initiatives to promote access to knowledge is the OA movement that makes it possible to restore the commons approach without changing national or international laws (Benkler 2006). In 2002, the Budapest Open Access Initiative defined open-access as follows:

"The literature that should be freely accessible online is that which scholars give to the world without expectation of payment. Primarily, this category encompasses their peer-reviewed journal articles, but it also includes any unreviewed preprints that they might wish to put online for comment or to alert colleagues to important research findings. There are many degrees and kinds of wider and easier access to this literature. By 'Open Access' to this literature, we mean free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the

integrity of their work and the right to be properly acknowledged and cited” (Budapest Open Access Initiative 2002).

Verschraegen and Schiltz (2007) propose that the OA movement creates the conditions for knowledge and science to be regarded as global public goods, which meet the criteria for non-rival and non-excludable consumption (Stiglitz 1999). The mere use of knowledge or information in digital format does not diminish its availability to others, but it is possible, by technological or legal means, to prevent the use of these assets.

OA, by eliminating those barriers, restores the potential for knowledge to be a universal common good. OA to knowledge can be regarded as a key ingredient in developing strategies to improving access to information in developing countries (Verschraegen and Schiltz 2007).

Two complementary strategies exist to reach OA: the golden route, which is publishing in OA journals; and, the green route, where the scholarly literature is deposited in OA repositories (BOAI 2002). For both strategies there are open source software packages which are free of cost and customizable which is common in the A2K movement.

Libraries and librarians around the world, equipped with the necessary technical skills to provide quality metadata and other value-added services, are taking the lead in this field, by taking responsibility for the creation of institutional repositories. Most importantly, they are placed in the right position to serve as mediators between academic authors, publishers and end users seeking access to academic literature (McKay 2007).

OA initiatives in developing countries provide the means for them to make their own research more visible and, at the same time, to gain access to research that is produced in other countries (Suber and Arunachalam 2005). OA presents a real opportunity to correct many of the inequalities and injustices inherent in the knowledge barriers that stand between the nations that are referred to as “core” and “peripheral” (Guédon 2007).

## Growth of OA

Heather Morrison reported on the dramatic growth of OA (Morrison 2005). In February 2005, approximately 1,400 OA journals were registered in the Directory of Open Access Journals ([www.doaj.org](http://www.doaj.org)); and, in August 2010, that number had climbed to 5,300. Morrison reported that the OAIster ([www.oclc.org/oaister](http://www.oclc.org/oaister)) database of Open Access resources included 5 million records. According to OCLC, that number had increased to 25 million records in 2010, representing digital resources from more than 1,100 OA providers (OCLC 2010).

The increase in the number of repositories and Open Access journals can be seen in the following chart, where it looks like the two strategies are showing growth in absolute values.

Year	Number of Repositories (ROAR)	Number of Journals (DOAJ)
2006	792	2,514
2007	968	3,031
2008	1,239	3,812
2009	1,557	4,535
2010	1,798	5,140

Table 1: Growth of OA in ROAR and DOAJ

A recent study by Bo-Christer Björk and colleagues of peer-reviewed journal articles published in 2008, found that approximately 20% of the articles were freely available online, with differences in the scientific fields (Björk et al. 2010). Earth sciences had the highest availability of OA articles (25.9% green and 7% gold), physics and astronomy had most of their OA share (20.5%) available through the green route, with only 3% published in OA journals. Chemistry and chemical engineering had the lowest availability of OA articles (7.4% green and 5.5% gold). In medicine, biochemistry and related fields, the most prevalent form of OA was via OA journals (golden road), whereas, in other fields, posting the author's manuscript in repositories or other sites was the prevailing method.

Studies showing OA citation advantage are gathering momentum. These studies verify the number of citations received by a document that has unrestricted access. Free access to the full text of articles has been proven as one of the factors influencing the likelihood for a document to be accessed, read and cited (Hajjem, Harnard and Gingras 2005; Moed 2007; Norris, Oppenheim and Rowland 2008; Davis 2008; Gargouri et al. 2010).

Lawrence (2001), one of the pioneers of this line of work, investigated and demonstrated that highly cited articles in computer science corresponded to works that were freely available on the Web. Later, other authors (Hajjem 2005 and Kurtz 2005) observed the same phenomenon in other subject areas such as physics and astrophysics. Studies by other authors show the opposite, for example, in Condensed Matter Physics (Moed 2007) and Conservation Biology (Calver and Bradley 2010) there was no evidence of citation increase due to OA. Currently, the topic is the subject of several analyses and studies

aimed at clarifying the effects on impact and visibility of research outputs when they are released free of access barriers.

Even when the advantages of OA are demonstrated, what matters in terms of advancing towards a hundred percent research literature availability is changing authors' behavior. OA mandates are the keys that encourage authors to archive their works in repositories. Authors do not diligently provide content to repositories unless they are required to do so by their research funders. A study by Alma Swan (2006) found that most authors (81%) said they would comply with a mandate willingly, and 14% said they would comply reluctantly. According to Harnad (2010) the experience with mandates that are in place shows that this is true.

Indicators, including sustained growth of repositories and OA journals, as well as a rising number of bibliometric studies, show an increasing interest from scientific communication researchers in the topic. OA is growing and it is here to stay.

## The Latin American Situation

OA in Latin America has advanced unevenly, with differences across countries. For the purpose of a more specific, comparative follow-up of OA growth in the region, this work examines the situation in three countries – Argentina, Brazil and Chile – which has already been analyzed in a previous work (Gómez et al. 2009). The studied indicators in the abovementioned work are updated here, showing a growth of OA indicators in all three countries. This analysis also considers other aspects, such as interventions of Latin American countries in WIPO, as well as the Consumers International IP Watchlist Report (2010) which ranks the studied countries among the 10 worst rated with respect to access to information.

A description of the situation with regard to Information and Communication Technology (ICT) is provided as a starting point. This is followed by an examination of cooperative regional and international projects because they introduce a binding element in the advancement of OA. Next, the description of the indicators that were taken for comparison is shown in a table of comparative values. And finally, a description of each country, based on the specified parameters is provided.

Concerning ICT, a description of the status of the basic infrastructure needed to deliver ICTs is essential to provide an overview of countries within the Information Society. The World Summit on the Information Society (WSIS), whose main goal is to promote the conditions to build an information society and narrow the digital divide, has created the Digital Opportunity Platform (International Communication Union 2007). This is an open and multi-stakeholder platform, with contributions from governments, intergovernmental

organizations, as well as academics and the civil society. Within this platform, WSIS developed an assessment tool, the Digital Opportunity Index (DOI), made up of eleven indicators grouped into three categories:

1. Opportunity (percentage of population covered by mobile cellular telephony, Internet access, and mobile cellular tariffs, as a percentage of per capita income);
2. Infrastructure (proportion of households with a fixed telephone line, a computer, Internet access at home, mobile cellular subscribers per 100 inhabitants, mobile internet subscribers per 100 inhabitants); and the
3. Use of Communication Technologies (proportion of individuals that used the internet, ratio of fixed broadband subscribers to total internet subscribers, ratio of mobile broadband subscribers to total mobile subscribers).

The DOI index was used by Gómez et al. (2009) to describe the evolution of DOI in Latin American countries between 2004 and 2006. They found that most countries had improved their DOI indicator with Chile, Argentina, and Brazil appearing to be taking the first places. It is important to point out that Shaver (2007) also included the DOI index in his outline of an Access to Knowledge Index.

Alperin et al. (2008) also studied the ICT infrastructure with data from Nielsen NetRatings and they reported that between 2000 and 2008 Internet usage worldwide had grown by approximately 275%, while in Latin America it had grown by 600%. But even with such dramatic growth, population penetration is still low, only about 21%, according to the author. This means that with respect to ICT distribution and usage there is much untapped potential. There is also an opportunity for further progress towards the Information Society as well as the opportunities that this brings for a more fluid exchange of information and knowledge.

## Collaborative Projects Advancing OA

Other elements that create the foundations for expanding OA in the region are international, regional and group projects that have developed recently. With regard to international projects, NECOBELAC (Network of Collaboration between Europe & Latin American-Caribbean countries [www.necobelac.eu/en/index.php](http://www.necobelac.eu/en/index.php)) is a three year project (2009-2011) funded by the European Commission under the 7th Framework Program on Science and Society. This project is involved in public health promotion, seeking to improve scientific writing, to support OA publication models and to encourage technical and scientific cooperation among European, Latin American and Caribbean countries.

In terms of regional projects, there are two which have been started recently. The first one is the Inter-American Development Bank's Regional Public Goods Program ([www.iadb.org/topics/government/rpg/about\\_rpg.cfm?lang=en](http://www.iadb.org/topics/government/rpg/about_rpg.cfm?lang=en)). This finances the project "Formation of a Federated Network of Institutional Repositories Scientific Documentation in Latin America<sup>2</sup>." The project, started in June 2010, has as its aim an agreed strategy for the construction and maintenance of a federated network of institutional repositories of scientific publications, sharing and giving visibility to scientific outputs, thereby contributing to the scientific and technological development in Latin America, under a framework of agreements on interoperability and information management (Banco Interamericano de Desarrollo 2010). Participating countries are Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru and Venezuela through their National Research and Education Networks (NRENs) and National Science and Technology Organizations, with the coordination of the Latin American Cooperation of Advanced Networks (CLARA).

The second regional project, also started in 2010, is the CoLaBoRa (Latin American Community of Digital Libraries and Repositories <http://sites.google.com/site/redlatrep1/redlatrep1/>). This project is funded by the Latin American Cooperation of Advanced Networks (CLARA) with the purpose of consolidating regional efforts and providing a single platform for unrestricted online access to academic, cultural and research production in Latin America, thereby increasing the visibility and presence of Latin American authors and institutions on the Web.

A very promising tool called Intelligo ([www.explora-intelligo.info](http://www.explora-intelligo.info)) is being developed by de Ibero-American Observatory of Science, Technology and Society, a unit of the Organization of Ibero-American States for the Education, Science and Culture (OEI). Intelligo provides a new way of searching and browsing scientific information, interacting with concept maps and accessing documents from Ibero-American repositories.

Additionally, in 2009, the Greenstone User Group in Latin America was created. Greenstone is an open source software package for the creation of digital libraries and repositories. Members of this group represent five centers in the following countries:

- Argentina (Facultad de Humanidades y Ciencias de la Educación, Universidad Nacional de La Plata; and, Facultad de Ciencias Exactas y Naturales, Universidad Nacional de Buenos Aires);
- Chile (Universidad Cardenal Silva Henríquez; and, Fundación para la Innovación Agraria); and
- Cuba (Centro de Cibernética Aplicada a la Medicina).

---

2 For information about the Project visit [www.iadb.org/projects/project.cfm?id=RG-T1684&lang=en](http://www.iadb.org/projects/project.cfm?id=RG-T1684&lang=en)



The group's purpose is to promote the acceptance of Greenstone in the region, build a regional support team that includes experts and provide a regular training schedule (UNESCO 2010).

Within the promising regional collaborative initiatives, the Latin American List on Open Access and Repositories (LLAAR, <http://groups.google.com.ar/group/LLAAR>) has emerged as a forum to discuss issues related to OA and to encourage the creation and maintenance of OA repositories for academic and scientific works in Latin America. The topics discussed include: strategies to encourage the creation and maintenance of OA repositories in Latin America; strategies for creating a network of Latin American repositories; the development of an infrastructure to achieve interoperable repositories nationally, regionally and globally; the creation of policies that promote scientific development; the use of OA repositories; and, the assessment of impact and visibility of intellectual works archived in OA repositories.

Librarians working on projects related to OA in Argentina and Chile started LLAAR in June 2009. Currently, LLAAR has more than 300 members, predominantly from the Latin American region.

Wiki Acceso Abierto (Wiki AA) (<http://wikiaa.unr.edu.ar>) emerged in response to a need in the LLAAR community. Throughout the world, there are excellent initiatives, programs and research activities that promote OA, but there was a need for a website in Spanish to gather and organize this information. That was the goal of Wiki AA with the support of Universidad Nacional de Rosario in Argentina and the E-LIS (E-prints in Library and Information Science) repository. Wiki AA also has a broader aim which is to become an information guide on OA in Spanish for both scientific and academic works. In English, Wiki AA means Open Access Wiki.

E-prints in Library and Information Science (E-LIS <http://eprints.rclis.org>) repositories support the deposit, archiving and preservation of documents shared by the Library and Information Science (LIS) community. If LLAAR or Wiki AA contributors want to share long articles they can submit them to the repository and share a link in the Wiki AA and the list. Most list and Wiki AA collaborators are librarians or persons working in library environments. Taken as cases that show the progress of OA and the relationship between OA and A2K in the region, these two initiatives will be analyzed against the results of a survey of members of the list in a separate section. The aim of the survey was to discover opportunities to improve performance, participant interest and impact.

As mentioned earlier, this work will show the growth of OA in the region through the Open Access Indicators (Gómez et al. 2009). These are used here for comparison, with some changes, in order to normalize the units of measurement and to prevent the distortion of results that would occur if different sources were used. Although a country's scientific production is not an indica-

tor of OA, it appears in the table as a source of reference, to provide a quantitative view of scientific production and evolution within the selected countries.

Regarding scientific output, the previous work (Gómez et al. 2009) took the ISI Web of Science 2005 database as its source of information for 2005. In this work the SCOPUS database is used as a source corresponding to 2007 and 2009, because it covers a larger number of publications.

OA indicators are those numbers that show the evolution of OA along the lines of two main strategies: green and golden routes. In order to analyze the evolution of green OA, the first indicator considered was the number of repositories registered in ROAR (Registry of Open Access Repositories <http://roar.eprints.org>). This verified and eliminated duplicate repositories. A second indicator was the number of records in ROAR repositories, again, to verify and eliminate duplicates. A third indicator was the average number of records per repository (total records divided by the number of existing repositories in ROAR in each country, eliminating duplicates).

Golden OA indicators were also considered: the number of journals in the DOAJ directory (number of registered Latin American journals up to August 2010) and the number of journals in Scientific Electronic Library Online – SciELO, [www.scielo.org.ar](http://www.scielo.org.ar) (2007 and 2010). It is important to note that documents available in SciELO are also included in ROAR. Furthermore, regarding golden OA, it is important to note that there is a Network of Scientific Journals from Latin America and the Caribbean, Spain and Portugal (Redalyc). Redalyc, based in Mexico, is a portal providing OA to more than 600 scientific journals from and about Ibero-America. Many of these journals found in Redalyc are also found in SciELO. It is a major regional project in the area, but there is no comparative data because its data was not considered in the original comparison table (Gómez et al. 2009). Therefore, it is not included here.

	Country	Argentina		Brazil		Chile	
		2007	2010	2007	2010	2007	2010
<b>Scientific output</b>	Scientific output in SCOPUS	7	8,720*	30,745	39,887*	4,750	5,700*
<b>Green Route Indicators</b>	Number of repositories (ROAR)	2	10	55	71	4	6
	Number of records in repositories (ROAR)	2,143	37,356	346,411	503,334	11,610	32,353
	Average number of records per IR (ROAR)	1,071	3,735	6,298	7,089	2,902	5,392
<b>Gold Route Indicators</b>	DOAJ journals	42	70	287	472	81	111
	SCIELO (August 2010)	29	62	185	237	66	89

\* Based on data from 2009

Table 2: Open Access indicators for Argentina, Chile, and Brazil, with comparative values

## Argentina

Regarding scientific output, Argentina is the second of the three selected countries, producing in 2010 approximately 9,200 documents according to the SCOPUS database. This indicates a 24% increase when compared to 2007. Argentina is the country that shows the most pronounced growth in its OA indicators. In ROAR, this country is represented by ten repositories, with a five-fold increase in the number of repositories in the directory between 2007 and 2010. While the total number of records increased 17 times and the average number of records per repository moved from 1,100 to 3,700, a 236% percent increase.

It is worth mentioning the creation of BDU2 (<http://bdu.siu.edu.ar/cgi-bin/query.pl>) a portal and repository harvester developed by Consorcio SIU, a University Consortium. BDU2 harvests 15 repositories using the OAI-PMH protocol with the objective of providing a unified search interface for information resources available from Argentinean repositories, as well as national and international visibility for those outputs.

The increase of available documents and the generation of a harvesting tool show that the visibility of documents from Argentina increased substantially from 2007 to 2010, both by increasing the absolute number of available documents and by expanding on the number of tools that were developed to access these records.

Regarding golden route indicators of OA, the Directory of Open Access Journal registered 70 electronic journals from Argentina in 2010, showing a 67% increase since 2007. Argentinean representation in SciELO increased by 114% going from 29 journals in 2007 to 62 journals in 2010. It is important to note the increase in number of OA documents available in ROAR; a cause for this may be the inclusion of SciELO as a repository. Guédon (2010) explains very well the particular characteristics of SciELO when he states:

“A SciELO Journal works like a small, peer-reviewed and thematic repository that would be endowed with a title that acts like a logo (for branding purposes) and some publishing capacity, including copy-editing. As a result, the SciELO formula works toward blurring the distinction between Green and Gold Approach to Open Access”.

Likewise, CAICyT (Centro Argentino de Información Científica y Tecnológica), a branch of CONICET (Consejo Nacional de Investigaciones Científicas y Técnicas), is developing a Portal for Scientific and Technical Publications (PPCT) which promotes OA to Argentinean journals that have appropriate editorial quality and academic content, through an OJS (Open Journal System) platform. This portal is for new Argentinean scientific and technical journals,

those have been already edited in print, or which have requested management support for their online editorial and publication process.

Argentina's Digital Opportunity Index (DOI) is 0.51, placing this country between Chile and Brazil on this index. In October 2005, Creative Commons (<http://creativecommons.org/international/ar/>) licenses have been ported to local legal frameworks. If the Digital Opportunity Index (DOI) is considered, it is found that a value of 0.51 scored a second place among the three countries in 2006.

Argentinean university and research funders have not yet issued OA policies with the exception of the Universidad Nacional de Córdoba, whose Academic Affairs Secretary ruled that all knowledge produced by their institution is to be considered a public good (Universidad Nacional de Córdoba 2010).

The Ministry of Science, Technology and Productive Innovation (MINCYT) of Argentina developed a National System of Digital Repositories (SNRD) to coordinate national initiatives and to provide funds for new and existing repositories. Within the system, a draft law was proposed, requiring Argentinean agencies and public institutions that are part of the National System of Science, Technology and Innovation (SNCTI) to create OA institutional repositories to deposit their technical-scientific output and data. In addition, there is a working group whose aim is to promote OA policies and develop models of OA policies and other legal instruments to promote the growth of OA repositories. The proposed project is being discussed by Congress (Honorable Cámara de Diputados de la Nación, 2011).

Furthermore, the same Ministry is a member of the Confederation of Open Access Repositories (COAR) (<http://coar-repositories.org>). In 2010, this government agency organized a conference under the title "Open Science: A Regional Challenge" which presented OA initiatives under development in Argentina and Brazil and also discussed author rights in relation to repositories.

Moreover, it is possible to observe a growing concern regarding OA benefits, especially among communities of librarians in Argentina which are involved in OA policies development. The excitement shown about OA indicators is also seen in the library community with the creation of LLAAR in 2009 and Wiki AA which came later.

## Brazil

Scientific production in Brazil remains the highest in the region and continues to grow from 31,000 records in 2007 to around 43,000 in 2010 (according to SCOPUS), which shows a 39% increase. According to the ROAR registry, this country has 71 repositories, showing a 29% increase in repositories registered in the directory since 2007, while the number of records increased by 45%.

During the same period, the average number of records per repository increased by 12 %, from approximately 6,300 to 7,100. In 2007, Brazil also had a national portal, known as Oasis.Br (<http://oasisbr.ibict.br/>) which harvests content from 109 repositories. It is currently out of service pending improvements.

The Directory of Open Access Journal features 472 electronic journals from Brazil, showing a 64% increase from 2007. The Brazilian SciELO portal showed a 34% increase in the number of OA journals. Furthermore, Brazil has done a remarkable job with the implementation of its Open Journal System-OJS, the project known as SEER, (Sistema Eletrônico de Editoração de Revistas <http://seer.ibict.br/index.php>) boasts 1,349 titles in its system. SEER's size is because it represents a 22% of the world's output and 79% Latin America records, compared to total journals running on OJS software. This is a significant achievement. In terms of comparison, it triples the amount of titles in SciELO. This finding is important because it suggests that Brazil is working strongly on this strategy with a great increase in 2008, adding about 700 titles that year alone (Santillan-Aldana 2010).

Brazil's Digital Opportunity Index (DOI) of 0.48 was the lowest. It was the first in the region to adopt Creative Commons licenses. At present, it is the country with the greatest number of granted licenses (Gómez et al. 2009). Brazil has advanced to accomplish the goals of OA since the creation of the SciELO platform in 1997.

The Instituto Brasileiro de Ciencia e Tecnologia (IBICT) ([www.ibict.br](http://www.ibict.br)) has taken the lead in most initiatives, coordinating actions and projects to propel the growth of the OA movement along with SciELO. This initiative was started in Brazil in 1997 by BIREME (Latin American and Caribbean Center on Health Science Information [www.bireme.br](http://www.bireme.br)) which is affiliated to PAHO (Pan American Health Organization) and WHO (World Health Organization), in partnership with FAPESP (São Paulo State Foundation for Support to Science, Brazil). IBICT is also supported by the National Science Research Council of Brazil (Packer and Meneghini 2007).

In 2005, IBICT issued the "Manifesto Brasileiro de apoio ao Acesso Livre à Informação Científica" which highlights the need to adopt a national policy with the support of the scientific community (IBICIT 2005). The same year, the Bahia Declaration on Open Access (2005) was drawn up and approved at an international conference that BIREME organized.

In 2007, IBICT participated in the creation of a Proposed Law (introduced by a member of Brazil's House of Representatives) that would require all Brazilian public institutions of higher education and research units to create OA institutional repositories to deposit their technical-scientific output. After 3 years, the project is still being discussed (Câmara dos Deputados 2010, Senado Federal 2011).

## Chile

Chile's scientific output ranks third when compared to Brazil and Argentina, showing a production of about 4,770 during 2007 and 6,213 documents (in the SCOPUS database) during 2010, representing a 30% increase in three years. The number of repositories registered in ROAR increased by 50% between 2007 and 2010. It is worth noting that the number of records increased by 280% in the same period. Also, the average number of records per repository increased from 2,902 to 5,392 (85%). There is no data regarding the total number of available repositories because Chile does not have a national repository portal and harvester.

With regards to OA journals, the Directory of Open Access Journal features 111 electronic journals from Chile, which represents a 37% increase since 2007. The Chilean SciELO portal showed a 34% increase in the number of documents, from 81 to 111 journal titles.

Among the countries surveyed, Chile has the highest Digital Opportunity Index (DOI) in Latin America, reaching 0.57. Further, Chile was the second country in the region to implement and adapt Creative Commons licenses into local legislation. This occurred in July 2005. In addition, the country is moving forward jointly with the NGO, Derechos Digitales ([www.derechosdigitales.org](http://www.derechosdigitales.org)), and the library community to raise awareness and generate materials for free content. As examples, one can mention "Editorial Policies Publications Academics in Chile" and "Legal Guide for Libraries," published by the Chilean Library Association. The latter is a technical tool to support libraries, in the face of a new intellectual property law passed in May 2010.

Derechos Digitales is one of the institutions working with Consumers International to develop an IP Watchlist. In 2010, Chile was placed last in Latin America in terms of access to knowledge. That may be related to the fact that, among the countries that have been analyzed, it is the only country that has neither signed nor supported the Geneva Declaration.

At the level of government policies, the National Scientific and Technological Research Commission (CONICYT) and the Universidad de la Frontera (UFRO) organized the international seminar "State of the Art of Scientific Research Data and Information Management Funded by Public Funds and Recommendations for the Design of a National Policy."<sup>3</sup>

The Pontificia Universidad Católica de Valparaíso plays a leading role with regards to OA in Chile. This university conducted a research project in order to learn how much Chilean researchers knew about OA. It also compiled a Directory of Open Access journals recognized by ISI Web of Science (<http://www.ejbiotechnology.cl/proyecto/index.php>).

---

3 <http://www.conicyt.cl/573/article-36978.html>

During 2008, the same higher education institution led the eQuipu network project of Chilean journals indexed by ISI Web of Science, using OJS software as a common platform. The aim of this project is to support the work of editors and improve the quality of Chilean scientific journals by strengthening a network of professional editors, adopting higher standards in the publishing industry and consolidating on a common platform.

## OA Advances in the Three Countries

The advancement of OA is clear and unquestionable in all three countries, with a significant increase in the two strategies (golden and green routes). There is no question that the number of records per repository is on the rise in each country, increasing by 12% in Brazil, by 85% in Chile, and by 236% in Argentina, reflecting the work that has been done to comply with the OAI protocol by institutions. It is important to highlight that these figures should be taken with some caution, because there are repositories that are not registered in ROAR. In absolute numbers, it is possible to conclude that Brazil is the most advanced, followed by Chile, whose repositories appear to be more effective in collecting content. With fewer repositories, in spite of noted growth, Argentina ranks in the last position.

When analyzed, the golden route has shown strong and sustained growth, moving from 34% to 67% in those entries registered in DOAJ, and from 34% to 114% in SciELO. Again, this last percentage indicator is higher in Argentina, which had fewer journals in the system in 2007. Brazil on the other hand, strongly supporting the golden route, with IBICT's emphasis on the SEER Project, has increased the number of journals that are available online, tripling its numbers in SciELO. While Chile shows a more regular growth while joining SciELO, one should consider that journals in the eQuipu project are mostly contained in SciELO, but running on OJS.

At the level of politics, Argentina is beginning to become aware of both pathways, which are growing steadily. In addition to awareness within the library community, Argentina is making significant progress given the short time that the project has been in existence.

Brazil apparently relied more on the golden route. It also seems to be depending on a law that would mandate that all research funded by public funds is deposited in repositories. This law is pending congressional approval. Brazil is working towards a well formulated OA policy. The approval of such policy would be very important for the rest of Latin America and the world, considering Brazil's large scientific production. Collaborative projects, both international and regional, play an essential role in this overall progress as well as in virtual communities. Swan (2008) opines that such a mandate is the way to support OA.

Linking the growth of OA in Latin America with the role of virtual communities leads to the creation of LLAAR as a virtual collaborative space with representatives from several countries in the region. One of the benefits of such collaboration is that it is possible to learn how unresolved issues emerge in our countries and how they are linked to A2K. The following section is a discussion of Wiki AA, a virtual space that is still under construction and gathering consensus.

## Discussion List, Wiki and Collective Action

As was mentioned earlier in the section devoted to collaborative projects which advance OA, the results of a survey of LLAAR members are presented here, from the point of view of growth of OA, as well as the relationship between OA and A2K. The objectives of the survey were to understand the motivation and issues of interest to LLAAR participants. In addition, the survey sought to establish the impact that participating in the list had in access to knowledge for its members and the communities where they work. The survey also aimed to identify opportunities for improvements.

Briefly, the methodology for data collection was an online survey tool. The Web address to complete the survey was sent via e-mail to the 228 members of LLAAR, during August 2010.

The questionnaire was divided into four sections: Personal Data, Benefits of Belonging to the LLAAR list (reasons for membership, covered topics and their relevance to the list of members, and the impact on the performance of their duties and professional development), Wiki AA (finding out if members visited the Wiki site, reasons for not visiting it, participation by contributing content, reasons for members not to contribute, and checking on the availability of content providers in the event that an editorial committee was created), and Concluding Remarks.

A quantitative and qualitative analysis of the data was performed.

## Results

A total of 58 members of the LLAAR list completed the survey. The response rate was 25%. Most respondents resided in Argentina (57%), nine percent in Colombia, seven percent in Spain, five percent in Brazil and Peru, three percent in Costa Rica, Ecuador and Uruguay, two percent in Chile, Italy, Mexico and Venezuela (see Table 3).



Country	Frequency	Percentage
Argentina	33	57%
Colombia	5	9%
Spain	4	7%
Brazil	3	5%
Peru	3	5%
Costa Rica	2	3%
Ecuador	2	3%
Uruguay	2	3%
Chile	1	2%
Italy	1	2%
Mexico	1	2%
Venezuela	1	2%
Total	58	100%

Table 3: Participants by Country

From the responses provided in Table 4 it is possible to see what members consider as the benefits of belonging to the LLAAR list. The responses also provide a scale of what members consider to be relevant and important to them.

Respondents were asked to indicate the reasons for their subscription to the LLAAR discussion list on a scale of importance (Table 4). The most important reason given for subscribing to the list was to keep abreast of developments relating to OA and repositories in Latin America. Responses given as “very important” and “important” represented 97% of the reasons for joining the list. The opportunity to interact with regional colleagues, who are working in libraries and other organizations in pursuit of OA, was considered “very important” and “important” by 96% of respondents. This came in as the second highest reason for joining the list.

Sharing information on progress and developments of their institutions regarding OA and repositories was regarded as “very important” and “important” (95%). Actively participating in the dissemination and promotion of the OA movement in the region was considered “very important” and “important” (94%).

List participants’ familiarity with OA and repositories was another variable that was considered “very important” and “important” as a reason to be a member of the list. For 69% of the respondents, membership of the list al-

lowed them to become familiar with a topic that was new to them. There were variations for this option. In contrast, 21% indicated that this reason was of “little importance” and 5% felt that it was “not important” to them. These latter cases show that these members were already familiar with the subject.

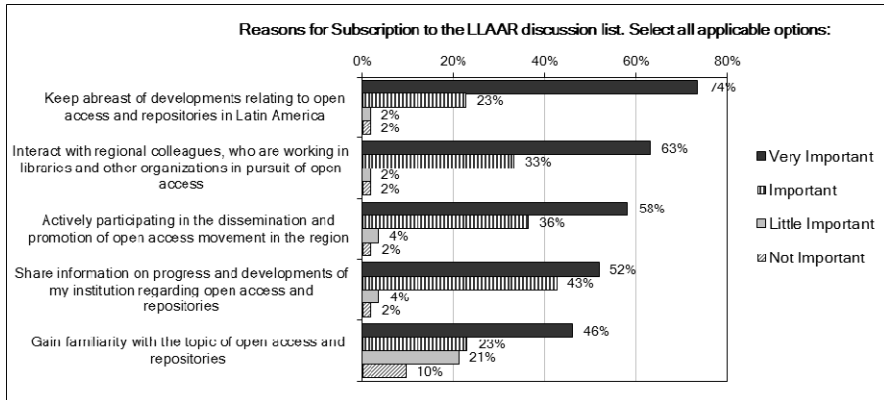


Figure 1: Reasons for Subscription to LLAAR

In addition, the survey asked members to choose the five topics that the list covered and were of greatest interest to them or to indicate other topics of interest (see Table 5). Most respondents (88%) indicated that one of the topics of greatest interest was to learn about OA policies and mandates that were implemented in different institutions and countries. These topics have been often discussed on the list, sharing studies indicating that OA policies, specifically mandates, were the demonstrated fast tracks to OA.

As a consequence of the first topic, 72% of respondents said they were interested in discussions regarding copyright and open licenses to promote OA. One fact to bear in mind is that copyright laws in Latin America and the Caribbean, in many cases, do not provide exceptions for libraries and in some cases they include very limited exceptions (Fernández-Molina and Guimarães 2010). These two issues are related to A2K and IP barriers. As Kapczynski (2008) explained it is a recurring theme and concern among LLAAR communities. Both of these issues are the ones that create the greatest level of interaction among members.

Many respondents (70%) expressed that one of their topics of interest was practical information about implementing repositories and OA journals. Also sixty-three percent considered it important to share and access the literature on the subject. It is interesting to note that 58% of the respondents considered that presentations on new roles for information managers were important.

Predictably, a good percentage of respondents (56%) indicated that it was important to share information on congresses and conferences about OA and

repositories. Fifty-one percent of respondents said they were interested in funding for OA initiatives. About 40% of the respondents said they were interested in information on workshops related to software or specific repository software packages.

A small percentage of respondents suggested other topics such as the ranking of digital repositories, integration with other tools related to libraries (catalogs, etc.), integration with digital libraries initiatives, contributions to research projects related to repositories and digital libraries management, integration with research evaluation systems (such as SIGEVA<sup>4</sup>), and integration with bibliographic systems.

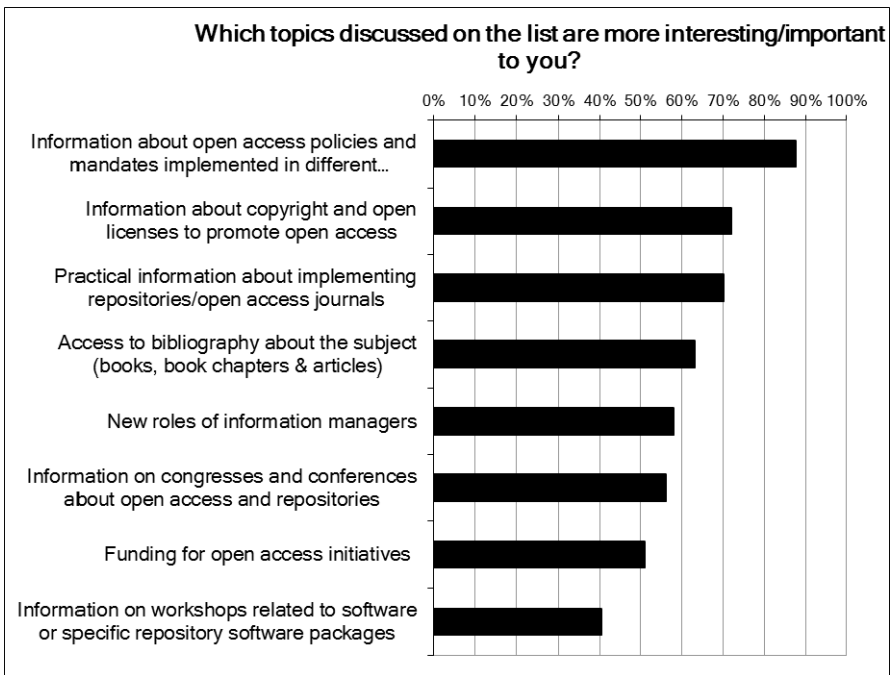


Figure 2: Topics Considered More Important

One of the most important issues the survey sought to identify was: what was the impact of participating in the LLAAR list on the professional development of its members? Options were offered describing possible ways their participation impacted on work and professional development, and respondents could choose all the options that they considered applicable to their situation (see Table 6) or add alternatives.

4 Sistema Integral de Gestión y Evaluación (SIGEVA) del Consejo Nacional de Investigaciones Científicas y Técnicas de Argentina.

Sixty-three percent of respondents (36 respondents) felt that LLAAR membership allowed them to be more knowledgeable about the OA resources that were available and, therefore, they were able to offer them to their users. It is possible to see here a way of advancing towards access to knowledge, with librarians as intermediaries. The feeling of being part of a Latin American community of OA was a significant impact, and that option was chosen by 56% of those responding (32 respondents).

Besides, 54% of the respondents (31 respondents) considered that their membership of the list helped them communicate more effectively about the value of OA to knowledge to authorities and users within their institutions. A good number of respondents (28 respondents, 49%) stated that being members of the list motivated them to engage and participate more actively in the management or dissemination of knowledge in their institutions.

Another impact was the ability to generate new relationships with colleagues, as expressed by 40% of the respondents (23 respondents). In addition, there was a group (19 respondents, 33%) which considered that participating in LLAAR helped them rethink their role as librarians and information managers. These responses show a growing commitment to access to knowledge in the library community participating in LLAAR.

It is noteworthy that a 26% of the respondents (15 respondents) said that, through the list, they learned about a topic about which they knew either nothing or knew very little about. Also, the professionals answering the survey said the discussions on the list motivated them to organize events related to OA in their institutions (11 respondents, 19%). The list is playing a role as a transmitter of contents and values of OA to knowledge to newcomers.

It is important to note that a group of respondents (10 respondents, 17.5%) indicated that the list helped and encouraged them to propose the creation of repositories or OA journals in their institutions, which was one of the key objectives of the list. A smaller percentage of respondents (6 respondents, 10.5%) said they found the topics discussed on the list interesting. However, LLAAR membership had no actual impact on their daily work; as a result, they had not implemented or disseminated these ideas in their professional environment. Another value of list membership, as stated by respondents, was professional development. Membership of the list motivated persons to keep abreast of the issues discussed and that they considered dissemination of knowledge for all as a strong value.

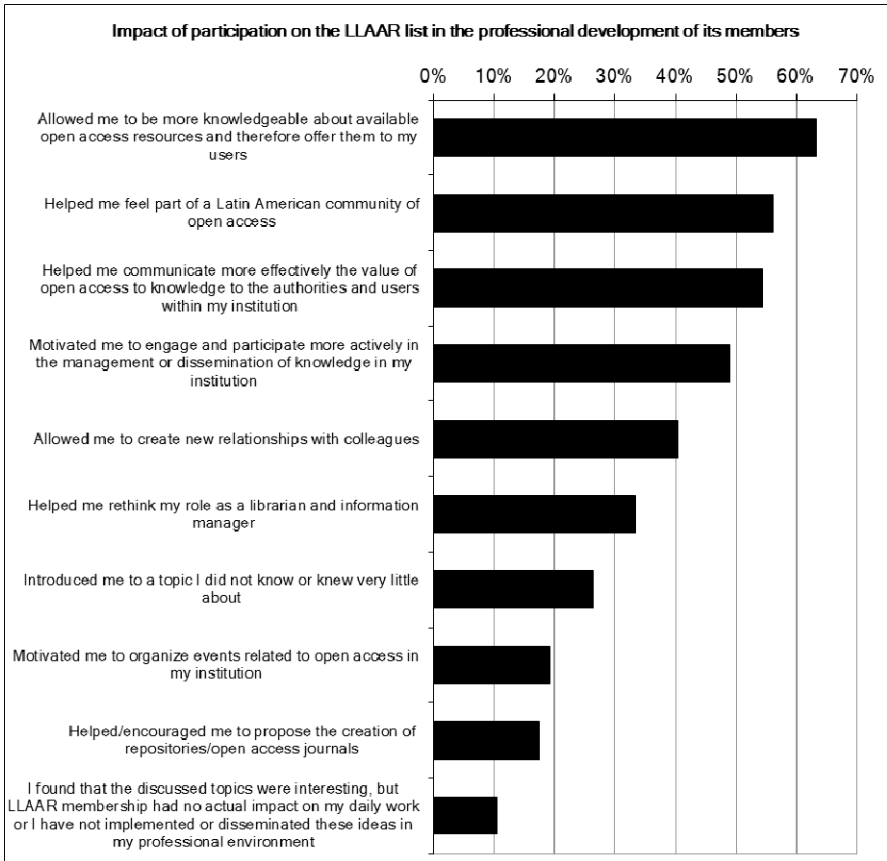


Figure 3: Impact of Participation on the LLAAR List

Regarding Wiki AA, the second initiative which is very early in its development raises the issue as if it would be easier to interact on a mailing list rather than to upload information to a Wiki. As Wiki is an emerging tool, as a consequence, it may not yet be widely used. Thus, assuming that the tool was in its initial phase, the survey asked whether respondents had visited the Open Access Wiki. A high number of respondents (27 respondents) had not visited the site; seventeen said they visited the site once, eleven said they visited the site sporadically, and three visited it regularly. The main reason for not visiting the site was unawareness of its existence (22 respondents), two respondents said they did not visit the site due to lack of time, two did not remember the site, and one respondent said that there were countless other sources of information.

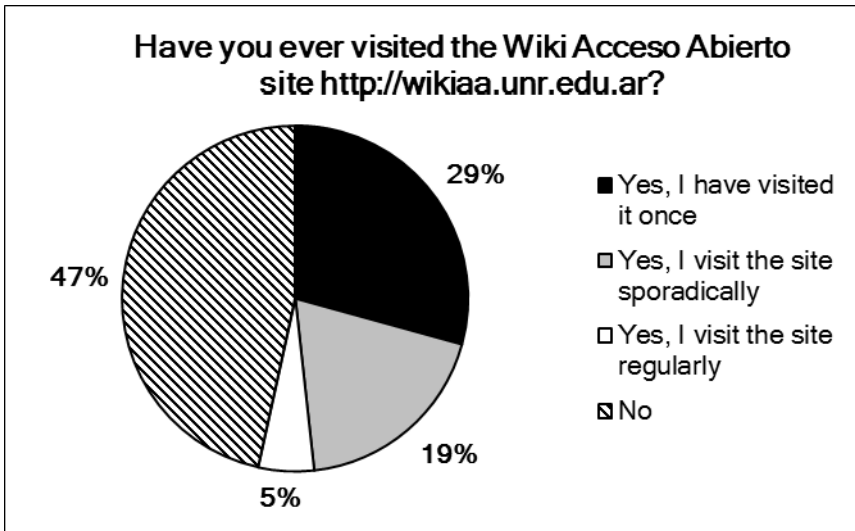


Figure 4: Visits to Wiki Acceso Abierto

One question sought to find out whether respondents had contributed content to the site. The percentage of those who said they contributed content was very small (9%), the remaining 91% replied that they had not contributed content, while two respondents omitted the answer to this question.

The reasons reported by respondents for not collaborating with the Wiki were lack of time (25 respondents), not having content to add (14 respondents), and only one respondent had difficulty to manage the MediaWiki software. Other reasons given for not contributing content were: unawareness of its existence (6 respondents); personal interest without the opportunity of professional application (1 respondent); and a lack of integration with existing systems (1 respondent). There were eight respondents who did not answer this question.

Knowing that, for the time being, Wiki AA has failed to become a collaborative venture, respondents were asked about the possibility of creating an editorial board for content on the site. Specifically, they were asked if they would join such a committee and most respondents (86.5%) said they would. However, there was a 13.5% negative response out of the fifty responses to this question.

## Conclusion

The region is mobilized, working and learning about access to knowledge and its implications. This is evidenced through the several established and ongoing regional collaborative projects that working in this area of the profession. Latin

America is moving forward and becoming a leading force behind access to knowledge. The conflict between access to knowledge and intellectual property regulations, and its implications for implementing OA routes are shown as a concern within the Latin American library community that is driving this initiative in the region.

Starting from this point of view and interpreting the data from the countries that have been examined, it is possible to arrive at some conclusions for each country. For each of the countries that were studied the major achievements are highlighted below.

With respect to Chile, its major achievements are:

- Digital Rights NGO which seeks to reduce current barriers with regard to IP;
- Adoption of Creative Commons licenses;
- Provision of training to intermediaries and librarians;
- Provision of materials to raise awareness and show existing methods of releasing information; and its
- Study of the management of publicly funded information which is remarkable, as this initiative is an indication that these issues are growing in importance and weight within the government.

In terms of Brazil, its major achievements are:

- Strong progress along the golden route;
- Tripling of the number of available electronic journals in the SEER portal;
- Pragmatic approach to advance along the road as quickly as possible, despite the slow progress of the bill that would allow for a more rapid growth of the green road and the loading of content into repositories; and
- Work on a local OA portal that can harvest content from journals and repositories.

With regard to Argentina, this country is

- Actively working at the level of government;
- Taking advantage of its growth potential, after a period of activity that was lagging behind the other two countries; and
- Ensuring that both OA initiatives (green and gold) are progressing in parallel, getting in tune, and working hard to have a worthy place among the other countries in the region.

The information policies of institutions are the focus of interest for most librarians on the LLAAR list. Government policies are also emerging. It is also necessary to generate clear policies within institutions, where mandates seem to be the tool that have worked best and will release large amounts of scientific, technical and other information. On the other hand, evidence shows that Wiki AA is not as yet a mature collaborative endeavor in Latin American information communities. The survey results, however, offer positive prospects and should an editorial committee be created, this would result in the effective management of content.

The regional projects and collaborative endeavors have the promise of generating the best possibilities. The relative degree of success of OA initiatives will depend on the capabilities of research institutions and regional governments to implement effective OA policies. In this regard, the Federated Network of Institutional Repositories Scientific Documentation in Latin America Project is generating the most expectation because it has partnered with governmental institutions that are responsible for moving forward the proposal. However, changes in government could cause a change in governmental priorities which would in turn impact negatively on the agendas of the projects.

Another important issue would be whether Latin American projects can manage to integrate with international networks like COAR, which would facilitate taking advantage of experiences and global standards of scientific communication. In this sense, a key concept to consider is that of replicability, which is essential to the success of regional and international projects. This means ensuring that best practices are implemented in existing projects and used in newly created projects. It is certain that communicating, sharing and learning about the different realities of the region would help in the solution of problems and also assist in the development of strategies to face new challenges. The LLAAR mailing list is playing a vital role by demonstrating that informal communication is most effective and contributes to OA discussions. Cooperative and sustained growth in OA will make regional scientific production available and more visible. Besides, such cooperation will make it easier to find experts in different fields. Ongoing collaboration will help to strengthen and improve equal access to knowledge throughout the region. Moreover, progress in regional projects encourages the building of new citation metrics and use of available information. This would lead to new mechanisms for evaluating scientific production at the regional level. Tools like Intelligo will help in this regard.

While the policies that promote OA at a regional level are a key to progress, if the strategy is to further OA to knowledge, it is vital that the needs of investigators, as the main drivers of change, are considered. Research suggests that the relationship between institutional repositories and researchers, as producers and users, is far from being a close one (Russell and Day 2010). It is



also essential that there is collaboration with researchers in order to facilitate processes and add value by integrating OA repositories into their daily work. Also necessary is expediting the interaction of researchers with the systems they use to manage their scientific production for different purposes, such as curriculum, institutional assessments, project presentations and personal page generation automatic updates. As Christine Borgman clearly states: “It is imperative that we understand more about the behavior and practice of individual scholars and learners, how they collaborate in distributed environments, and how they can take advantage of new capabilities, along with their reasons for doing so” (Borgman 2007).

Latin American countries can and should learn from the experience of other countries and projects that have experience in working on strategies which are concerned with moving OA to knowledge at different levels. At the macro level, solid policies, international standards and best practices should be adopted. At the micro level, work needs to be done with researchers in order to understand and integrate their needs into A2K strategies. The most promising possibility is to collaborate and share in order to advance regionally.

## References

- Argentina. Honorable Cámara de Diputados de la Nación. Proyecto de Ley 1927-D-2011. *Creación de Repositorios Digitales Institucionales de Acceso Abierto, Propios o Compartidos*. 2011.  
<http://revista.ibict.br/liinc/index.php/liinc/article/view/269>. [Mar. 2011].
- Alperin, J. P., Fischman, G. and Willinsky, J. “Open access and scholarly publishing in Latin America: ten flavours and a few reflections.” *Liinc em Revista*, 4.2 (2008).  
<http://revista.ibict.br/liinc/index.php/liinc/article/view/269>
- Salvador Declaration on Open Access. 2005.  
[www.icml9.org/meetings/openaccess/public/documents/declaration.htm](http://www.icml9.org/meetings/openaccess/public/documents/declaration.htm) [Mar. 2011].
- Balkin, J. “Foreword.” Shaver, L. B. and Rizk, N. *Access to Knowledge in Egypt: New Research on Intellectual Property, Innovation and Development*. London: Bloomsbury Academic, 2010.
- Banco Interamericano de Desarrollo. *Estrategia Regional y Marco Interoperabilidad y Gestión para una Red Federada Latinoamericana de Repositorios de Rocumentación Científica*. 2010.  
[www.iadb.org/projects/project.cfm?lang=es&artid=-1&project=rg-t1684&query=&id=rg-t1684](http://www.iadb.org/projects/project.cfm?lang=es&artid=-1&project=rg-t1684&query=&id=rg-t1684) [Mar. 2011].
- Benkler, Y. *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven, Conn.: Yale U P, 2006.
- Bindé, J. and Matsuura, K. *Towards Knowledge Societies*. Paris: UNESCO, 2005. (UNESCO world report, 1).
- Björk B-C, et al. “Open Access to the Scientific Journal Literature: Situation 2009.” *PLoS ONE*, 5. 6: e11273. 2010. <http://dx.doi.org/10.1371/journal.pone.0011273> [Mar. 2011].
- Borgman, C. L. *Scholarship in the Digital Age: Information, Infrastructure, and the Internet*. Cambridge, Mass.: MIT Press, 2007.

- Brasil. Câmara dos Deputados Projecto de Lei Nº 1.120. (Do Sr. Rodrigo Rollemberg). Dis-  
põe sobre o Processo de Disseminação da Produção Técnico-científica pelas institui-  
ções de Ensino Superior no Brasil e dá Outras Providências. 2007.  
[http://kuramoto.files.wordpress.com/2010/08/parecer\\_deputado\\_ariosto\\_holanda.pdf](http://kuramoto.files.wordpress.com/2010/08/parecer_deputado_ariosto_holanda.pdf)  
[Mar. 2011].
- Brasil. Senado Federal Projeto de Lei Nº 387 de 2011. *Dispõe sobre o Processo de Registro  
e Disseminação da Produção Técnico-científica pelas Instituições de Educação  
Superior, bem como as Unidades de Pesquisa no Brasil e dá Outras Providências.*  
2011. <http://legis.senado.gov.br/mate-pdf/93063.pdf> [Mar. 2011].
- Budapest Open Access Initiative. 2000. [www.soros.org/openaccess](http://www.soros.org/openaccess) [Mar. 2011].
- Calver, M. C. and Stuart, B. J. “Patterns of Citations of Open Access and Non-Open Access  
Conservation Biology Journal and Book Chapters.” *Conservation Biology*, 24.3 (2010):  
872-880.
- Canessa, E. and Zennaro, M., eds. *Science Dissemination Using Open Access: A Compen-  
dium of Selected Literature on Open Access*. Trieste: Abdus Salam International Centre  
for Theoretical Physics, 2008.
- Davis, P. M., et al. “Open access publishing, article downloads, and citations: randomised  
controlled trial.” *BMJ* (2008): 337:a568.
- Fernández-Molina, J. C. and Guimarães, J. A. C. “The WIPO development agenda and the  
contribution of the international library community.” *The Electronic Library*, 27.6  
(2009): 1010-1025.
- Fernández Molina, J. C. and Chaves Guimarães, J. A. (2010) “Excepciones al derecho de  
autor en beneficio de las bibliotecas: situación de América Latina y el Caribe.” *IFLA  
General Conference, Gothenburg, 2010. 76th Conference Proceedings*. 2010.  
<http://www.ifla.org/files/hq/papers/ifla76/121-molina-es.pdf> [Mar. 2011].
- Gargouri Y., et al. “Self-Selected or Mandated, Open Access Increases Citation Impact for  
Higher Quality Research”. *PLoS ONE*, 5.10 (2010): e13636. 2010.  
[www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0013636](http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0013636)  
[Mar. 2011].
- Geneva Declaration on the Future of the World Intellectual Property Organization. 2004.  
<http://www.cptech.org/ip/wipo/futureofwipodeclaration.pdf> [Mar. 2011].
- Gómez, N., et al. “Open access indicators and information society: the Latin American  
case.” *OCLC Systems and Services*, 25.2 (2009): 82-92.
- Gómez Dueñas, L. F. “Repositorios documentales y la iniciativa de archivos abiertos en La-  
tinoamérica.” *BiD: Textos Universitaris de Biblioteconomia i Documentació*, June 20  
(2008). <http://www.ub.edu/bid/20gomez2.htm> [Mar. 2011].
- Guédon, J. “Open Access and the divide between “mainstream” and “peripheral” science.”  
Ferreira, Sueli Mara S. P. and Targino, Maria das Graças, eds. *Como Gerir e Qualificar  
Revistas Científicas*. [2007]. <http://eprints.rclis.org/archive/00012156/> [Mar. 2011].
- Hajjem, C. and Harnad, S. *Citation Advantage for OA Self-Archiving Is Independent of  
Journal Impact Factor, Article Age, and Number of Co-Authors*. Southampton: Univer-  
sity of Southampton, Electronics and Computer Science. [2007].  
<http://eprints.ecs.soton.ac.uk/11688/> [Mar. 2011].
- Hajjem, C., Harnad S. and Gingras, Y. “Ten-Year Cross-Disciplinary Comparison of the  
Growth of Open Access and How it Increases Research Citation Impact.” *IEEE Data  
Engineering Bulletin*, 28 (2005): 39-47.
- Harnad, S. “Open Access to Research: Changing Researcher Behavior through University  
and Funder Mandates.” *EDEM2010: Proceedings of the 4th International Conference*

- on *E-Democracy*. [2010]. <http://eprints.ecs.soton.ac.uk/22401/1/harnad-jedem.pdf> [Mar. 2011].
- Harnad, S., et al. "The Access/Impact Problem and the Green and Gold Roads to Open Access." *Serials Review*, 30.4 (2004): 310-314.
- . "The Access/Impact Problem and the Green and Gold Roads to Open Access: An Update." *Serials Review*, 34.1, (2008): 36-40.
- IBICIT. Manifesto Brasileiro de apoio ao Acesso Livre à Informação Científica. 2005. [www.rnp.br/noticias/imprensa/2005/not-imp-050914b.html](http://www.rnp.br/noticias/imprensa/2005/not-imp-050914b.html) [Mar. 2011].
- Kapczynski, A. "The Access to Knowledge Mobilization and the New Politics of Intellectual Property." *The Yale Law Journal*, 117.5 (2008): 804-885.
- Lawrence, S. "Online or Invisible?" *Nature*, 411.6837 (2001): 521.
- Leite, F. C. L. Como Cerenciar e Ampliar a Visibilidade da Informação Científica Brasileira: Repositórios Institucionais de Acesso Aberto. IBICT. 2009. [www.ibict.br/anexos\\_noticias/repositorios.institucionais.F.Leite\\_atualizado.pdf](http://www.ibict.br/anexos_noticias/repositorios.institucionais.F.Leite_atualizado.pdf) [Mar. 2011].
- McKay, D. "Institutional repositories and their 'other' users: usability beyond authors." *ARIADNE*, 52. 2007. [www.ariadne.ac.uk/issue52/mckay/](http://www.ariadne.ac.uk/issue52/mckay/) [Mar. 2011].
- Moed, H. F. "The effect of 'open access' upon citation impact: an analysis of ArXiv's condensed matter section." *Journal of the American Society for Information Science and Technology*, 58 (2007): 2047-2054.
- Morrison, H. "The Dramatic Growth of Open Access: Implications and Opportunities for Resource Sharing." *Journal of Interlibrary Loan, Document Delivery and Electronic Reserve*, 16. 3 (2006): 95-107.
- Norris, M., Oppenheim, C. and Rowland, F. "The Citation Advantage of Open-Access Articles." *Journal of the American Society for Information Science and Technology*, 59 (2008): 1963-1972.
- Packer, A. L. and Meneghini, R. "Learning to communicate science in developing countries." *Interciencia Caracas*, 32.9 (2007): 643-647.
- Pessach, G. (2007) "The Role of Libraries in A2K: Taking Stock and Looking Ahead." *Michigan State DCL Law Review*, 1 (2007): 257-270.
- Pontificia Universidad Católica de Valparaíso. *Directorio de Revistas Open Access reconocidas por el ISI Web of Science*. [2009]. [www.ejbiotechnology.cl/proyecto/index.php](http://www.ejbiotechnology.cl/proyecto/index.php) [Mar. 2011].
- Pulido O. D., Robledo M. R. and Agudelo, C. A. "Scientific writing, scientific communication and open access: An international, multidisciplinary project – NECOBELAC. [Escritura, Comunicación Científica y Acceso Abierto: Un Proyecto Internacional y Multidisciplinario-NECOBELAC]". *Revista de Salud Pública*, 11.2 (2009): 310-314.
- Rodríguez Gallardo, A. "Visibilidad de la ciencia latinoamericana: un reto para la bibliotecología y la información en la región por más de 35 años." *IFLA General Conference. 76th Conference Proceedings*. [2010]. <http://www.ifla.org/files/hq/papers/ifla76/121-gallardo-es.pdf> [Mar. 2011].
- Russell, R. and Day, M. "Institutional Repository Interaction with Research Users: A Review of Current Practice." *New Review of Academic Librarianship*, 16.1 (2010): 116-131.
- Santillán-Aldana, J. "OJS en América Latina." *I Encontro Nacional de Usuários do SEER*, Florianópolis, Brazil, 14 – 16 Jul, 2010. 2010. [http://eprints.rclis.org/18893/1/ojs\\_america\\_latina.pdf](http://eprints.rclis.org/18893/1/ojs_america_latina.pdf) [Mar. 2011].

- SCImago. SJR — SCImago Journal & Country Rank. <http://www.scimagojr.com> [Aug. 2011].
- Shaver, L. “Defining and Measuring Access to Knowledge: Towards an A2K Index.” *I/S: Journal of Law and Policy for the Information Society*, 4.2. [2008]. [http://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1021&context=fss\\_papers](http://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1021&context=fss_papers) [Mar. 2011].
- Stiglitz, J. “Knowledge as a global public good.” Kaul, I., Grunberg, I. and Stern, M., eds. *Global Public Goods: International Cooperation in the 21st Century*. New York: Oxford University Press, [1999].
- Suber, P. and Arunachalam, S. “Open Access to Science in the Developing World.” *World-Information City*, October 17. Tunis: WSIS, [2005].
- Swan, A. “The culture of Open Access: researchers’ views and responses.” Jacobs, N., ed. *Open Access: Key Strategic, Technical and Economic Aspects*. Oxford: Chandos, 2006.
- . “Why Open Access for Brazil?” (Por que acesso livre no Brazil?)” *Liinc em Revista*, 4.2 (2008). Special Issue: Acesso Livre: um novo paradigma para a comunicação científica. [2008]. <http://revista.ibict.br/liinc/index.php/liinc/article/view/279/166> [Mar. 2011].
- Tapscott, D. and Williams, A. D. *Wikinomics: How Mass Collaboration Changes Everything*. New York: Portfolio, [2006].
- Tise, E. R., Raju, R. and Masango, C. “Libraries Driving Access to Knowledge: a discussion paper”. *IFLA Journal*, 34.4 (2008): 341-346.
- UNESCO. German Commission for UNESCO. *Open Access: Opportunities and Challenges: A Handbook*. Brussels: European Commission, Directorate General for Research, [2008].
- Verschraegen, G. and Schiltz, M. “Knowledge as a Global Public Good: The Role and Importance of Open Access.” *Societies Without Borders*, 2.2 (2007): 157-174.
- UNESCO. Greenstone: Un Software Libre de Código Abierto para la Construcción de Bibliotecas Digitales: Experiencias en América Latina y el Caribe. Günther Cyranek, ed. [2010]. <http://unesdoc.unesco.org/images/0018/001887/188719s.pdf> [Mar. 2011].
- Universidad Nacional de Córdoba. Secretaría de Asuntos Académicos. Resolución 116/2010. *Resolución sobre Publicaciones Universitarias de Acceso Abierto*. 2010. [www.academica.unc.edu.ar/informacion-sobre/normativas/documentos/Resolucion%20OCW.pdf/view](http://www.academica.unc.edu.ar/informacion-sobre/normativas/documentos/Resolucion%20OCW.pdf/view) [Mar. 2011].



# The Success Story of a Locally Developed Online Video Site: HKBUtube

Shun-han Rebekah Wong  
*Hong Kong Baptist University Library*

## Introduction

This chapter is a case study on the use of video and the development of an in-house video archiving facility at an institution of higher learning in Hong Kong (HK). HK is a small, self-administrative city of the People's Republic of China with land mass of 1,104 km<sup>2</sup> and a population of more than seven million people. HK is one of the most densely populated cities in the world.



Figure 1: Hong Kong at night

Streaming video is quickly becoming the format of choice for today's university students, especially visual learners who may use video to replace traditional textual media. YouTube is by far the most popular and the most comprehensive online video site, but the varying quality of the images on this site, questionable content and inadequacy of local materials make YouTube unsuitable for higher education teaching and learning in HK. The Hong Kong Baptist University (HKBU) Library created its own online video site, HKBUtube. Three types of online video programs are offered via this site: local television documentaries; scholarly meetings held at the University; and, student multi-

media productions. HKBUtube not only serves the HKBU community in support of teaching and learning, but it also offers the general public access to its content. In addition to providing online video (most are Open Access [OA]), a videoblog was created to highlight videos and accommodate user interaction. After being in operation for more than two years, HKBUtube was found to be a rewarding project in terms of use. The videoblog was also found to be an effective way to promote individual videos.

## Online Video and Students

Online video has become deeply integrated into the daily life of today's young adults. In 2009, a Pew Internet & American Life Project interviewed 2,253 American adults and found that among Internet users between the ages of 18 and 29, 89% had used video sharing sites. During the process of this research, on a randomly selected day it was discovered that 36% of the population surveyed had accessed content on that day. The report further summarized the popularity of online video sites by stating

“watching online videos on sites like YouTube is more prevalent than the use of social networking sites, podcast downloading and the use of status updating sites like Twitter.”

One year later, Pew Internet (2010) conducted a similar survey and restated that young adult Internet users continued to be the heaviest consumers of online video. A diversity of video content was accessed, from comedies to political video, from educational clips to movies or TV shows. An August 2010 Synovate survey revealed an even more interesting result. A sample of 12,302 youth from 11 Asian countries was surveyed through face-to-face interviews or by completing an online form. HK youth were “the top group surveyed across Asia in watching professionally produced videos online (31%), above regional average of 19%.”

Online video is a rich and flexible medium. It is not only good for leisure but also beneficial to higher education in many ways. McNaught (2007) clearly states that online video can provide a more exciting and inspiring way of teaching and learning than a straightforward lecture or tutorial. Screening videos in class can maintain student attention, help illustrate difficult concepts, show real life examples and inspire discussions. Outside the classroom, digital video technology provides students with tools (pausing, seeking within video and replaying) to control the information flow of the video, so that note-taking, the revision of difficult parts and lapses in attention are facilitated. Mayall's study (2010) echoed this point of view. After examining the effect of the integration of online video cases in a teacher education program, the author re-

ported that both students and the instructor found this way of teaching beneficial. Students indicated that the online video cases were “very beneficial for making the connection between the course theoretical components and practice”. The instructor commented that online cases helped students to have a feel for what a real classroom with real children was like. This teaching method was described as “fabulous” and “invaluable”.

More importantly, the positive impact of online video on student learning outcomes has also been reported in the literature. Bassili and Joordens (2008) reported on a survey in which a sample of 673 psychology students was allowed to choose between attending face-to-face lectures, watching lectures online or doing both. They found that students who had watched online lectures and used a media player performed better in their examination than those who did not utilize the technology as a learning strategy. Wieling and Hofman (2010) found that both the number of lectures students viewed online and the number of classes they attended in person contributed positively to their examination grades. Wieling and Hofman’s study was based on a sample of 474 students studying European Law. The authors further stated that the positive effect of viewing online lectures was higher when fewer face-to-face lectures were attended.

Two factors have provided the HKBU Library with an opportunity of becoming a better multimedia service provider, namely that today’s college students like to watch online video; and, that online video can enhance teaching effectiveness and learning outcomes. Although there are several big Websites providing online video for free, not many of these videos can be used in higher education. Most free videos found on the web contain unverified content, and they are mainly for self-expression. Language is another hindering factor. While English is the official language in institutes of higher education in HK, Cantonese (or Chinese language) is, however, the mother-tongue of the city. Of-ten HK students learn at a slower rate if English is the language of texts and verbal presentations. It is also difficult to locate video cases that use local examples and situations. For example, it is easy to get a video about teen drug use in the US, but is very difficult to get a video about the same topic in the context of HK. In 2008, the HKBU Library felt the urge to create an online video site and provide local multimedia materials that would be useful to both the university community and the general public. The HKBU Library developed two scenarios with respect to the content of these videos:

1. Converting existing and highly used local videos to an online format;  
and
2. Creating new materials that are potentially useful to a wide audience.



Unquestionably, copyright is an issue that has to be dealt with; however, choosing a suitable service platform was deemed to be the most critical consideration.

## YouTube?

Like many institutions and libraries, YouTube was initially considered as the platform of choice (Stephens 2007). Mounting locally created videos onto YouTube is the simplest and cheapest way of providing an online video service. Presently, YouTube is the most popular video-sharing site. Tech Crunchies (2010) recently provided statistics that showed the dominance of YouTube as an online video medium. Despite being relatively new – YouTube celebrated its 5<sup>th</sup> anniversary in 2010 – it enjoys over 2 billion hits per day and 24 hours of video are uploaded every minute. Given its vast resources, if one was to try and view all of the videos currently posted on YouTube one would need 1,700 years to view the content of this site. YouTube is also proactively establishing partnerships with several large TV companies and large universities to provide TV programs and scholarly videos on a more systematic basis. More importantly, uploading content to free video sharing sites like YouTube can significantly save an institution staff time and money, as the institution does not need to maintain any video streaming servers, search engines and related backend systems. Unfortunately, YouTube imposes serious technical constraints on video creators. The HKBU Library felt it would be constraining to use this network as its service provider for on-line and other video services. The following are some of the reasons for the Library's decision in this matter.

1. YouTube limits the length of the video to 15 minutes, but almost all of HKBUtube's videos exceed 22 minutes. Although "Partners" can be exempted from this length limitation, HKBU would be unlikely to secure this waiver even if the Partner Program is established in Hong Kong because only entities that can "regularly produce videos intended for viewing by a wide audience or who publish popular or commercially successful videos in other ways (such as DVDs sold online)" are perceived as YouTube's potential Partners (YouTube 2010).
2. Due to copyright reasons, some of HKBUtube's videos are open to the University's community only. (Copyright and OA will be discussed in more detail later.) The video streaming server must be connected to the Library's Web Access Management system for controlling user authentication. It was generally felt that YouTube's parameters would not work for a medium-sized university like HKBU.

3. The quality of YouTube videos varies considerably, both technically and content-wise. When commenting on the culture of the amateur, Keen (2007) states that

“in today’s self-broadcasting culture, [the] ill-informed, can publish a blog, post a video on YouTube, or change an entry in Wikipedia, the distinction between trained expert and uninformed amateur becomes blurred ... When bloggers and videographers, unconstrained by professional standards or editorial filters, can manipulate public opinion ... the democratization of information is undermining truth and belittling expertise, experience and talent.”

The HKBU Library is of the view that it is improper to mix scholarly and professional videos with other videos whose content is either unverified or simply based on the main theme of YouTube – “Broadcast Yourself™.”

4. YouTube is facing pressing problems with respect to copyright. Established media producers are using different methods to apply pressure over the inclusion of copyrighted materials on YouTube (Jarrett 2010). According to Williams (2010), YouTube makes it easy for copyright infringement to occur. As a consequence, the HKBU Library is hesitant to upload video content to such a controversial platform.

Certainly, there are other free video sharing sites running on the market, such as blinkx, MeFeedia, and Google Video, but they present more or less the same problems that YouTube has with respect to scholarly work and access by the academic community. In view of these constraints and concerns, the HKBU Library decided to build its own video site and purchase the necessary hardware and software systems. Instead of working with YouTube, the Library chose to view it as a “competitor”. It is hoped that HKBUtube will be the most important source for professors and students of the institution when they need videos for educational purposes. The Library also hopes that HKBUtube will be one of the major sources of educational video for the general public in HK. The HKBU Library felt that it could learn from the success of its main competitor, YouTube. There were two major issues that HKBUtube used YouTube’s experience for guidance:

1. One of YouTube’s major principles is open access (OA). “Everyone can participate in the YouTube community by watching, sharing and commenting on videos” (YouTube Website). As librarians, OA is also our deeply held view. As a consequence HKBU librarians made every attempt to negotiate releases from copyright owners to include their content on HKBUtube; and

2. Another positive aspect relates to its approach to technicalities, e.g., a simple layout, its user interaction components and the way it highlights video.

## HKBUtube (Design/Methodology/Approach)

“HKBUtube” ([www.hkbu.edu.hk/lib/hkbutube](http://www.hkbu.edu.hk/lib/hkbutube)) has three main goals:

1. Serving as the most important source when HKBU instructors and students need videos for teaching and learning purposes;
2. Extending knowledge that is contained in videos to the general public, and
3. Promoting OA.

This site was first launched in September 2009. Figure 2 is an example of the main page of HKBUtube.



Figure 2: Main Page of HKBUtube

Table 1 provides information on the file properties that are currently used by HKBUtube and YouTube. Table 1 uses 480p video in order to compare the two systems.

	<b>HKBUtube (480p video)</b>		<b>YouTube (480p video)</b>
Format	WMV		FLV
Video Encoding	WMV8		MPEG-4 AVC (H.264)
Aspect Ratio	4:3	16:9	16:9
Resolution	640 x 480	848 x 480	854 x 480
Frame Rate	25 or 30		Depending on the original frame rate
Video Bitrate	Constant (700 kbps)		Varies (depending on the original video)
Video Size limit	no limit		< 2 GB
Video length limit	no limit		< 15 mins
Audio Encoding	WMA		AAC
Channels	2 (stereo)		2 (stereo)
Audio Sampling rate (Hz)	48000		44100

Table 1: File Properties Used by HKBUtube and YouTube for 480p Video

HKBUtube currently has 3 types of video:

1. Local documentary-type television programs;
2. Scholarly conferences, seminars and public talks organized by the University's departments or centers; and
3. High-quality audio or video productions produced by HKBU students.

For each video type, there will be a discussion of the rationale behind each video type; the relevant partnership; the difficulties faced; copyright issues; and, attempts that were made to provide OA.

## Local Television Programs

As discussed by Scannell (2010), all kinds of television programs have academic and historical value. He opines:

“All program genres are of equal historical interest and weight: it would be an elementary error to think that the only properly historical part of the record were serious factual programs; news and documentaries”.

According to Scannell, even fictional entertainment is as relevant and as interesting as serious factual output. All these TV programs can be used to explore historical issues in relation to gender, class, race, politics and other topics. Hollink and Schreiber (2009) describe other common uses of a large television archive which is based in the Netherlands. These uses include television professionals looking for reusable shots, teachers and students enhancing their teaching and learning experiences and some people simply having a general interest in a program or a topic.

On top of the potential uses mentioned above, the HKBU Library had another important internal reason for setting up an online television archive – a high usage of the physical items (either in DVD or VHS format) which would ultimately impact on the playability and viewability of these physical formats. The use of local TV programs had been increasing over several years, from 3,872 loans in 2005/06 to 9,478 loans in 2008/09. Television programs represented between 6% and 11% of the total use of all audio-visual (AV) materials (see Figure 3).

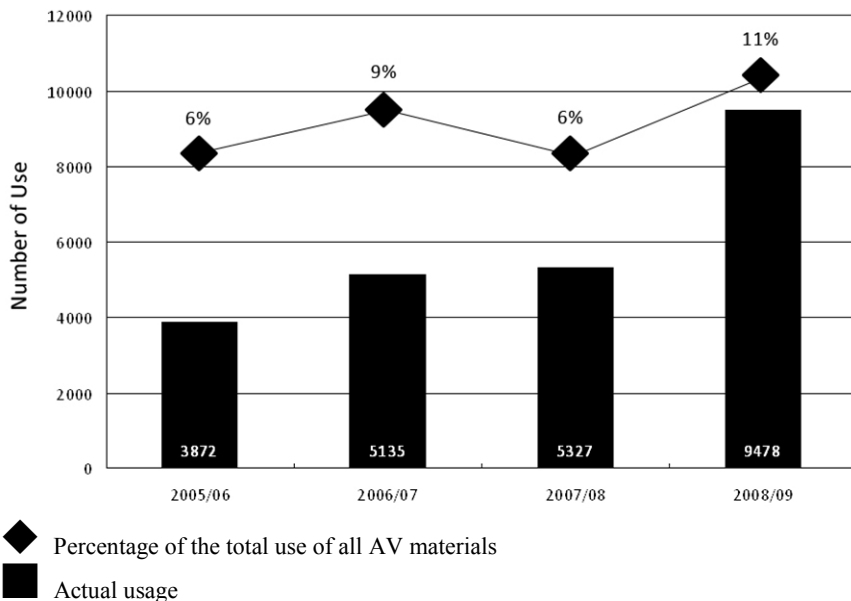


Figure 3: Usage of Off-Air Recorded Local TV Programs (DVDs and VHS Tapes)

In recent years at HKBU, the use of local TV programs has ranked third in all types of AV materials, after dramatic videos and music CDs. The use of these formats has been higher than educational materials and language learning kits. Many faculty members, especially those who teach Communications, Arts, Visual Arts and Social Sciences courses, like to use local TV programs to enhance their teaching and stimulate student discussions.

Another driving force was the absence of an openly accessible, systematic, formal television archive in HK. Although local TV companies have put finished programs on their official Websites, no system-wide mandate for preservation exists at any media institution. Their online offerings serve, in the main, two purposes: marketing and revenue-generation through embedded advertisements. So, only popular programs are uploaded and these may be relocated, edited or removed without notice. The version that local TV companies provide online is far from broadcast quality, either having low resolutions or being interrupted by frequent advertising, making their videos unsuitable for classroom use. Table 2 provides a summary of the properties of online video provided by local TV companies. To get a better understanding of the comprehensiveness of the online video collection of these companies, a longitudinal study of one of their most famous documentary programs was also undertaken.

	ATV	RTHK	TVB
Format	wmv	wmv / rm	flv / mp4
Resolution	320 x 240 / 384 x 288	384 x 216	720 x 406
Video Bitrate	512 / 450 / 340 / 275 Kbps (depending on the program types)	388Kbps (wmv) / 350Kbps (rm)	450 Kbps
Advertisements?	No	No	Before and in between the video
Coverage of a Documentary Program	Program under study: 時事追擊 Broadcast since: 1988 Online archive: one rolling month	Program under study: 時事摘錄 Broadcast since: before 2005 Online archive: one rolling year	Program under study: 財經透視 Broadcast since: 1989 Online archive: two rolling years

Table 2: Properties of Online Video Provided by Local TV Companies

The highly limited searching capability of these Websites is another concern, as these sites rely heavily on browsing. One of the smaller TV companies listed above does not even provide a search box on its Website. If a user does

not know the exact series title and the broadcast date, it is very difficult for them to discover a suitable or specific video. The last major problem relates to financial reasons. If an instructor needs a video that is non-pixelated and free of advertisements (usually in DVD format) for teaching purposes, he/she usually finds it impossible to obtain an affordable price from the TV station. Several years ago, a TV company charged a faculty member HKD\$1,500 (US\$192) for the public performance right and content of a 22-minute video.

## Working with TV Companies

In the 1980s, there were only three TV companies based in HK: one HK government-funded entity – RTHK; and, two privately owned companies, ATV and TVB. All three TV stations have been broadcasting free television programs for the public and producing high quality documentaries on a weekly basis. During the 1980s, HKBU was one of the two universities in HK that provided professional degrees in communication and journalism. The University hired staff of these three broadcasting companies as part-time instructors, and many of our graduates have eventually worked with these companies. Due to this pre-existing relationship with the three local TV stations, these companies have given us permission to record and keep some of their TV documentaries for teaching purposes, free of charge *viz* RTHK in 1985, TVB in 1986, and ATV in 1988. VHS tape was the format of choice during that time and HKBU viewers were requested to use those tapes within the campus only. Once our arrangements with these TV stations became known, the seven other government-funded university libraries in HK, on a case-by-case basis, made similar deals with these TV companies.

A major breakthrough was achieved in 2003 when the eight government-funded university libraries (known as the “JULAC libraries”<sup>1</sup>) joined forces to get a formal, uniform license from RTHK. JULAC libraries were granted from RTHK a non-exclusive right to record and copy licensed programs (i.e. documentaries) in a format of their choice for teaching and learning purposes within their institution. No charge was involved, but the license had to be reviewed and renewed annually. Each JULAC library was also requested to provide RTHK with monthly reports on the TV programs it recorded for final approval. Further, users of JULAC libraries were not allowed to make duplicates of the video for any reason. One year later, JULAC libraries successfully signed

---

1 The acronym “JULAC” stands for Joint University Librarians Advisory Committee. The members of this consortium are: The Chinese University of Hong Kong, City University of Hong Kong, Hong Kong Baptist University, The Hong Kong Institute of Education, The Hong Kong Polytechnic University, Hong Kong University of Science and Technology, Lingnan University and The University of Hong Kong.

similar agreement with ATV and TVB. The only differences were: ATV issued a blanket contract and monthly reports were not needed, and TVB charged an annual token fee for HKD\$1.3 dollars (US\$0.2) for the uniform license. These rights and their attached requirements are still in force.

With the emergence of several paid television companies and overseas broadcasters in the HK market, the situation has been getting harder in recent years. Although these new companies may not be able to threaten the business of ATV, RTHK and TVB in the short term, the competition is becoming more marked. In order to generate and maintain a high level of revenue:

“TV is being reshaped, reimagined and reinvented in unpredictable ways. Broadcasting has become only one of a set of options for the distribution of TV content, alongside cable, DVDs, Internet downloads and online video streams” (Meikle and Young 2008).

Not surprisingly, these three TV companies have already started to repackage their new and old TV programs and sell them as DVDs or other formats to create an additional revenue stream for themselves. Increasingly, because of the trend of TV companies to repackage their broadcasted programs, JULAC libraries are now having difficulties to obtain licenses to record and keep TV programs. The refusal to grant a license protected the TV station’s commercial interests. Once, a TV company even rejected more than half of the programs that HKBU recorded for that month. However, HKBUtube is still one of the largest and most systematic television archives in HK. Recently, more researchers have been writing and commenting about previous and current attempts at television archiving. Ubois (2005) gives a general overview of the parties that are involved in this endeavor and the general limitations that exist. Major parties include:

1. Non-commercial broadcasters, educational institutions, and libraries;
2. For-profit organizations such as the program owners, local television stations, and Internet-based video search engines, and
3. Government institutions.

Spigel (2010) traces the development of television archives in the US, from the first archive that was set up by the Library of Congress in the early 1960s to the recent virtual archives like YouTube and Hulu. Green (2008) examines several Internet-based video-sharing projects in the UK and their relationship to traditional television broadcasting. Green’s comment on TV-Links.co.uk, a stream indexing Website that occupies a legally grey area is informative:

“TV-Links did not host any content itself, a feature commonly thought to provide protection for the site owners from anti-infringement action.



Rather, the site provided links to material uploaded to various video-sharing sites, predominantly those based outside of the United States.”

Using a more focused approach, Hollink and Schreiber (2010) describe the Multimedia Analysis for Cultural Heritage Project in Netherlands, which is one of the biggest audio-visual archives in Europe. This system is rapidly expanding. About 8,000 hours of digitally born television programs and 20,000 hours of digitized old programs are being added annually. Rubin (2009) provides an explanation of how a national long-term preservation repository for “born-digital” public television programs was planned and established in the US, and how the US government has helped this project.

As a higher education institution wanting to access archived video programs, HKBU is less fortunate than their international counterparts. First, as was mentioned before, no formal archiving activities are in place within local (HK) broadcasting. This leaves no room for systematic stream indexing Websites. Further, the HK Government has neither been involved in the creation of any television archives nor tendered explicit support for the effort of local universities to archive these resources. Thus, HKBU and other JULAC libraries are on their own when negotiating with the TV companies. The companies eventually imposed two major constraints on the universities:

1. Only selected documentaries are allowed for archiving; and
2. Video is to be made accessible only to the university community and not to the general public.

## Current Status

Monthly, the HKBU Library records between 60 and 100 documentaries that have been broadcast on four different channels from the three TV stations. Since 2009, television production in HK has shifted from the analog process to being entirely digitalized. Virtually all documentary programs are now shot and edited on digital platforms even though this technology is new to HK. Finished programs are finalized as digital files. Owing to the newness of this technology, local broadcasters have not reached an agreement about production protocols and technical standards. As a consequence of this non-standardization, TV companies in HK are producing their programs on different technical platforms; thus, technological compatibility is likely to be an issue in the future. Further, HKBU is only allowed to record the programs in-house; it does not have direct access to the high-resolution master files of documentaries. After recording an aired program, the HKBU Library still needs to perform a series of editing steps before the file can be converted to the online format. These steps include removing commercials, cutting black rims for 4x3

The screenshot shows the HKBUtube website interface. At the top, there is a navigation bar with 'HONG KONG BAPTIST UNIVERSITY Library' and 'SERVICES F A Q'. Below this is the 'TV Programs' section, which includes a search bar and filters for 'After' (1984) and 'Before' (2012) dates, and 'Held by' status. The main content area is divided into several sections: 'Series by Subject' (listing categories like Annual Review, Arts and Culture, Business and Economics, etc.), 'New Series' (listing recent uploads like '創·新傳奇'), 'Series by Producer' (listing channels like ATV, RTHK, CTU, TVB), 'Series by Year' (listing time periods from 2010 to 1980s), and 'Series by Language' (listing Chinese and English). On the right side, there is a 'TOPICS' sidebar with a list of subjects and corresponding video titles in both English and Chinese, such as 'OCT Policy Address 施政報告' and 'SEP Can we trust charity collectors? 慈善團體可信嗎?'.

Figure 4: The “TV Programs” Page of HKBUtube

programs and handling subtitles that are not embedded in the video. In order to meet the service pledge to upload the final video on the Internet within 2 working days after broadcast, the Library makes use of six hardware and software tools (namely Magic TV, MPEG Streamclip, WINAVI, ProjectX, VobSub, and XviD4PSP) and assigns one staff to be responsible for every two TV channels. Currently, more than 8,000 new and old local documentaries are made available on HKBUtube for on-campus and off-campus use (after user authentication).

The HKBU Library does not merely put the finished videos online; it also provides full metadata in compliance with the AACR2 standard. A search interface was designed and prepared with three browsing lists for user quick access. Figure 4 provides information on the “TV Programs” page of HKBUtube. “Major Series” (Figure 2) is a static list that displays the most commonly used and longest running documentary series. At present, 14 titles are displayed. “New Series” names the latest documentary series. To enhance the visual effect, screen shots of the videos that have the series title displayed roll on the screen. “Topics” is a cumulative list leading users to documentaries that talk about hot social or political issues, such as the Constitutional Reform Debate, droughts in China and global warming. Each month during the term, two to

four topics are featured. Lastly, a videoblog named “Monthly Pick” (previously, “Biweekly Pick”) has been created on the main page of HKBUtube to highlight specific videos, mostly local documentaries. As with most other blogs, “Monthly/Biweekly Pick” includes very useful features like playback, voting, inputting user comments, and an archive of previous posts.

## Scholarly Talks

HKBU has a good reputation for sponsoring and organizing scholarly meetings on campus. Many of these meetings are international in stature, such as the International Writer’s Workshop, Pulitzer Prize Winners, Consuls General in Residence Program, *inter alia*. Since 2009, and in line with the University’s Strategic Plan to enhance its international position and the mission of “Whole Person Education”, the HKBU Library has been working to provide online access to digitized scholarly events (such as conferences, seminars and public talks) organized by university departments and centers, using HKBUtube. The HKBU Library sees this service as bringing benefits to both the University and the organizing departments.

### Benefits to the University:

- Centralizes HKBU scholarly events by providing a single place to store and retrieve videos;
- Makes international scholarly presentations available worldwide and raises the HKBU profile; and
- Presentations are available in an up-to-date digital format, thereby fully utilizing the university resources invested in event organization.

### Benefits to the Organizing Departments:

- Creates a tool that enhances teaching content and the learning experiences of HKBU students;
- Provides a place to showcase the work of departments, making them visible and discoverable;
- Shifts the burden of archival and access provision responsibility from individual departments to a centralized unit (the Library);
- Allows organizers and speakers to link to the videos in their Websites; and
- Enables speakers to maintain ownership of their presentations.

## Working with Organizing Departments

The most challenging aspect of the project is to gain the support and involvement of the organizing departments and their invited guest speakers. Attempts to convince university departments of the benefits of this endeavor included an official invitation memo sent from the Library Director to all Deans/Heads; presentations conducted by the Multimedia Services (MS) Librarian during orientation for new staff and library coordinators day; announcements via the University's e-announcement system; and full-color posters mailed to all instructors and senior administrative staff. Among all the methods used, the most effective was to send individualized emails to corresponding units. Every morning, messages posted as e-announcements are read in order to identify departments or centers where scholarly meetings will be held. This information then facilitates direct contact with the person-in-charge of the relevant department in order to see if it would be possible to record the session. The entire process is recorded, including who was contacted, when the contact was made and what response was received. This facilitates follow-up, should that be necessary.

Admittedly, gaining departmental participation is not an easy task. From the first departmental adopter that was successfully recruited in the early 2009 through to November 2011, only 42 out of 77 departments could be enticed to participate, despite considerable effort over two years and the repeated use of promotional events and outreach activities. The success rate was 55%. Regrettably, some of these departments participated only once without making a long-term commitment, whilst others explicitly indicated that they were not interested in the project at all.

There are many reasons for this low response rate. First, departments need to do the video-taping themselves and pay the incurred fees. Due to the limited resources of the Library, it cannot afford to either do the video-recording or pay the video-recording fee for all scholarly meetings held at the University, although as an incentive to encourage participation, the Library did, on occasion, provide video-taping services and pay the fees. Fortunately, HKBU has another administrative department, the Information Technology Office (ITO), which can lend to university departments video-recording equipment and help them arrange student helpers to do the video-taping at an hourly rate of HKD\$47 (US\$6). This cost is very low in comparison with professional video-taping rates. However, many departments complained about the quality of taping done by students. Taping long sessions can also be costly, for example, to tape a 3-day conference will cost about HKD\$1200 (US\$154).

The additional work required to be involved in the program is seen as another reason for low response rates. On top of the video-recording task mentioned above, departments are also required to get all speakers (at least those for the same panel session or those appearing on stage at the same time) to

sign the Speaker Authorization and Release Forms before any video-taping can take place. After the online videos are ready for viewing, departments have to contact the relevant speakers again, notifying them of the video's URL.

A summary of the project's workflow is as follows:

1. The Library sends the department the standard Speaker Authorization and Release Forms, both English and Chinese versions;
2. The department invites the speakers to sign the forms;
3. The department gets the event taped and sends all information to the Library;
4. The Library edits the video files (e.g. splitting the video into several files based on the number of available sessions) and converts them to online videos;
5. The Library catalogs the event and makes the videos accessible through both the Library Catalog and HKBUtube;
6. The Library sends an email to the department notifying them of the URL of the online videos; and
7. The department forwards the Library's notification email to the corresponding speakers.

Lastly, a mistake was made in the early stages of the project by approaching the administrative assistants in a department instead of Directors directly. Understandably, an administrative assistant would not have the same level of interest with respect to the image of the department as would a departmental head. Assistants may underestimate the benefits of making their scholarly meetings openly accessible on the Internet. Moreover, in most cases, they are the group of people who would need to take up the additional workload mentioned above, on top of an already heavy schedule. Although some administrative assistants who when contacted were very cooperative and helpful, many of them expressed disinterest or reluctance to participate in the project. After realizing that this was the situation, the Library started to directly approach department heads from the beginning. This usually led to a positive response.

## Working with Speakers

Young (2008) advances that many professors and scholars enjoy the benefits of being seen in online videos and becoming "Online Video Stars." Online video can expand the audience who sees a program; online video can improve the quality of presentations as speakers know that they are being taped, and online video can help presenters appeal to a popular online audience. Young provides a success story of a professor of anatomy and neuroscience by sharing the following experience: "Since the university started uploading her lec-

tures to YouTube, she has been getting fan e-mail from around the world". Initially, it was believed guest speakers at HKBU who were well-known in their field would also welcome being taped and appearing on HKBUtube. However, it was soon realized that the underlying difficulties had been underestimated.

Many speakers coming from the business world, especially those working in local medium-sized or large business firms were very sensitive to being taped. For educational purposes, they usually did not mind disclosing some of their companies' strategies or best practices to a student audience as illustrative examples, but they did not wish to have their presentations recorded. These business people were very concerned that by having their thoughts recorded that this information could be accessed by their competitors. This was what presenters told us directly. Therefore, most of the scholarly meetings that touched on business practices were not included in HKBUtube's video collection. The concerns of local business people and cultural issues were factors that needed to be taken into account from the beginning of the project.

Another group of presenters who often refused a request to be recorded were scholars from Mainland China. As a self-administrative region of China, everyone who lives in HK can enjoy full freedom of speech. When HK students asked questions or expressed their opinions in public venues, they were not aware that they might be touching on a sensitive topic. Often times, Mainland China scholars also felt more relaxed in delivering public messages when they were in HK. Therefore, these speakers were sometimes tempted to say something that they would not normally say in China. Once, a Chinese scholar came to HKBU and delivered a speech on Chinese classical music. He had given us the signed Speaker Authorization and Release Form before coming to the seminar. However, soon after reviewing the online video in China, he requested us to take down the video from the Internet permanently as he thought he had said something "dangerous" in the question and answer session.

In view of these and other opinions and perspectives, authors were once again offered the restricted viewing option of their programs (i.e. access was limited to members of HKBU community with off-campus access being facilitated through user authentication protocols). This option had been dropped in the very early stages of the project in order to encourage OA. Fortunately, 90% of the scholarly talks that have been recorded are still open to the public.

## Current Status

As of November 2011, HKBUtube has made 273 scholarly events accessible online. These events were organized by 42 departments or research centers. The content of these scholarly meetings is very diverse, from language studies to the latest in computing technology, from conversations with business people

to talks delivered by diplomats based in HK. The formats of these meetings also vary, from 1-hour public seminars, to half-day workshops, to three-day international conferences. The following is a select list of scholarly meetings that are publicly accessible through HKBUtube:

- *A Summit Conference on the Future of Public Relations in China* (Sept. 12-13, 2009), which won in the “Leadership and Development” category of 2009 Gold Standard Awards. This competition was conducted by Public Affairs Asia, one of the foremost trade journals in the Asia-Pacific region.
- *Beyond Boundaries* (Mar. 10, 2010), presented by Ms. Maya Ying Lin, a world-renowned artist and architect and the creator of the well known Vietnam Veterans Memorial in Washington, D C.
- *Requirements for a Modern University* (Nov. 13, 2008), presented by Dr. Woo Chia-wei, the Founding President of the Hong Kong University of Science and Technology and the first Chinese American to serve as a President of a major university in the US, namely the San Francisco State University.
- *The Earth in 2020* (Oct. 26, 2010), presented by Dr. Lee Boon Ying, Director of the Hong Kong Observatory.
- *A Pop Music Class with Jonathan Wong* (Nov. 4, 2010), presented by Jonathan Wong, a local pop singer. This program was hosted by Dr. Wong Chi Chung, a famous disc jockey in Hong Kong.

As with other programs, these videos were not put on online in their crude form, rather they were processed as are the other programs which populate HKBUtube. Figure 5 provides information on the “Scholarly Talks” page of HKBUtube.

## Student Productions

HKBU is a medium-sized university that aims to “provid[e] broad-based and creativity-inspiring education” (HKBU Website). In addition to Faculties of Arts, Business, Social Sciences, Science and Chinese Medicine, the University has also established two specialized faculties and some other departments to offer creativity-centered degree programs. These programs require students to produce many high-quality creative works during their study. For instance, the Academy of Film (AF) requires students to produce dramatic movies, video documentaries and animated productions; students at the Academy of Visual Arts are required to create sculptures, paintings and decorative art; students of the Department of Music have to compose music and perform classical work; students of the Department of Journalism need to prepare video documenta-

**Scholarly Talks** Open to All

Translating Theory : The Transparency and Opacity of the Japanese... (CTN, 13/10/2011)

教務系主任 <四年制編程入學講座> (AR, 16/10/2011)

三三四導語 (AR, 16/10/2011)

教務系主任 <三年制編程入學講座> (AR, 16/10/2011)

三三四導語 (AR, 15/10/2011)

Strengths and Weaknesses of Business Section (JOUR, 23/9/2011)

**ARTD** (1)  
 Department of Chinese Language and Literature (5)  
 Department of English Language and Literature (1)  
 Language Centre (6)  
 Department of Music (2)  
 Department of Religion and Philosophy (3)  
 Humanities Programme (1)  
 Liberal and Cultural Studies (1)  
 Centre for Applied Ethics (4)  
 Centre for Chinese Cultural Heritage (5)  
 Centre for Sino-Christian Studies (2)  
 Centre for Translation (21)  
 International Writers Workshop (16)

**BUSD** (9)  
 Chinese Businesses Case Research Centre (1)  
 Institute for Enterprise Development (1)  
 WLB International Institute for Business Development (6)

**COMD** (40)  
 Academy of Film (40)  
 Department of Communication Studies (5)  
 Department of Journalism (15)  
 Centre for Media and Communication Research (5)

**SCID** (1)  
 Department of Computer Science (5)  
 Department of Mathematics (1)

**SSSD**  
 Department of Sociology (1)  
 Modern History Research Centre (1)

**Other**  
 Academy of Visual Arts (5)  
 Institute of Creativity (3)  
 School of Chinese Medicine (48)  
 School of Continuing Education (1)

**Admin**  
 Academic Registry (4)  
 Alumni Affairs and Communications Office (1)  
 Chaplain's Office (1)  
 Centre for Holistic Teaching and Learning (8)  
 Communication and Public Relations (1)  
 David C Lam Institute for East-West Studies (3)  
 General Administration Office (2)  
 International Office (17)  
 Knowledge Transfer Office (3)  
 Library (12)  
 Office of Student Affairs (20)  
 University Advancement Office (1)

Figure 5: The “Scholarly Talks” Page

ries; and students of the Digital Graphic Communication program (Department of Communication) are asked to create animation movies and design 2D, 3D and online products using design software applications. These high-quality multimedia productions possess intrinsic educational value and can be used as valuable teaching and learning resources for in the programs in which they were created as well as in other departments for which such materials would be of interest.

In the AF many complicated and interrelated movie-making theories and techniques are covered in the curriculum. Showing examples of real productions is one of the best ways of helping students to understand these theories and assisting them to put new knowledge into practice. Certainly, professional video is a good teaching and learning tool, as these productions are state-of-the-art and inspiring. Among the renowned video products held in the collection are some Hollywood movies and BBC documentary programs. However, as this type of video is usually produced in highly advanced and expensive studios, it is completely impossible for the instructors and students to replicate parts of the video using the university’s equipment, for demonstration, practicing and experimenting. Conversely, while videos prepared by previous students are comparatively simple, nevertheless they meet acceptable standards. Current students would not find it too difficult to replicate the techniques used by those who studied before them. In addition, from previously created foot-



age, current students would be able to view the techniques and ideas that former students would have used in their productions. Instructors are also able to easily locate suitable video clips produced by former students to use as illustrative examples.

An archive of student work is of great value to the learning experience of current and future students. The programs in the archive can support individual learning and nourish discussions inside and outside the classroom. Students can watch, comment and discuss the outstanding productions of their peers in the middle of the night at home or in an afternoon class. Race and Pickford (2007) demonstrate that work of previous students can help current and future students gain a better understanding of the assignment standards. They gave a particular example when they state:

“give students the chance to apply marking criteria ... get them to mark some past work in a whole group setting such as a lecture, using the criteria, before setting out to do some similar coursework” (Race and Pickford 2007).

Other benefits of this archive include that it:

- Helps to motivate students to produce high-quality work and enhances their satisfaction by giving their work more permanent recognition and the possibility of use by future students (Wagor 1990);
- Provides the possibility to include student creative work in teaching portfolios that are used for evaluating and enhancing teaching (Seldin 2004);
- Enables the Department to communicate with overseas colleges and professional firms to get feedback and recognition;
- Makes student creative outputs available worldwide and raises the profile of the Department; and
- Provides a place to showcase the work of students when they are job hunting.

## Working with Departments

It is unrealistic for the HKBU Library to expect the archive to be able to showcase student creative work of all relevant programs immediately, as some departments may need a longer time to adapt to a new way of handling their student productions. It was also too ambitious to make the system compatible with all anticipated multimedia formats used in HKBUtube; these formats include video, audio, still pictures and a panoramic view of 3D objects. It is especially true when there is only a small team of four full-time staff to oversee

the audio-visual and online video services. Therefore, the HKBU Library decided to start with in discipline that produces only one multimedia format. The AF was the final choice. This is a big, independent faculty whose students produce only videos.

As part of the program requirements, both AF undergraduate and graduate students have to produce various types of video programs throughout their study e.g. dramatic movies, documentaries and animated programs. A special feature of this requirement is the request for giving the AF the unconditional right to exhibit their work for educational, promotional and research purposes. This special requirement is clearly written on the annual student handbooks and every student was fully notified of these details when they entered the Academy. Students willingly comply with this requirement and provide a release of unconditional use by the University. This certainly was very helpful to the project. This collaboration, however, did not come easily. The Academy and the MS Librarian took almost two years to get the agreement secured and its details finalized. One of the key persons who helped to make this collaboration work was the new AF library coordinator (faculty member charged with acting as a library liaison), who had also been responsible for supervising and managing the final year projects of the Academy for years.

Another big challenge that this project faced was budgetary. It was estimated that the first phase of the project would consist of 2,400 video minutes, covering four years of final year projects. As these projects were produced over a period of time different technologies were used to create these student videos, namely DVDs, DVCAM tapes, and Beta tapes. Due to technological and other issues associated with the collection of student productions the converted online files could not simply be uploaded to the existing HKBUtube system. Some work associated with the system database, searching algorithms and usage log system had to be done beforehand. With regard to the collection size, the various formats, the creation of the backend system and the project duration (it was expected that the first phase would have been finished within six months), it was anticipated that extra funding would be needed. In December 2009, the MS Librarian and the AF library coordinator submitted a joint Teaching Development Grants (TDG) proposal in an attempt to get special funding as a start-up fund for the project. The TDG scheme is offered by HKBU for enhancing the quality of the University's teaching and learning. All HKBU full time staff members involved in any aspect of teaching and learning are eligible to apply for support from this fund. Applications are reviewed by the TDG Panel which is comprised of several senior teaching and administrative staff members of the University. HKBU's Library and the AF were very pleased that the TDG panel "considered it [the project] worthy of support" and approved the requested budget.

Due to the success of the first phase of the project with AF, HKBUtube successfully invited three other academic departments to join its OA endeavor.

The Department of Communication Studies contributed its students' video productions dating from 1997; the Department of Journalism contributed theirs from 2000; and the Department of Music added content that dates from 2008. In November 2010, HKBUtube secured additional TDG funding to further develop this inter-disciplinary repository of student multimedia productions. This funding almost triples the previous one, and is sufficient to permit the hiring of a Project Assistant for 18 months. Because of more adequate funding, HKBUtube redesigned the whole Student Productions Website, taking account of the comments made by AF faculty and students earlier and the new ideas raised by the three teaching departments involved in the project. Changes included both layout design and site functionality. Table 3 provides information on the division of labor between the Library and the teaching departments.

	<b>The University Library</b>	<b>The Teaching Departments</b>
1 <sup>st</sup> Stage (Preparatory Stage)	Submission of a Teaching Development Grants proposal for a special funding	
2 <sup>nd</sup> Stage (Implementation Stage)	Creation of the backend system	Selection of student work
	Video file editing and conversion	
	Creation of metadata	
3 <sup>rd</sup> Stage (Follow-up Stage)	Internal and external promotions	
	System maintenance	Handling students' copyright concerns when needed

Table 3: Division of Labor between the Library and the Teaching Departments

## Current Status

This is a newly created collection, which has been open to the public since August 2010. As of November 2011, a total of 484 student video productions have been uploaded for online viewing. These productions come from four teaching departments: Academy of Film, Department of Music, Department of

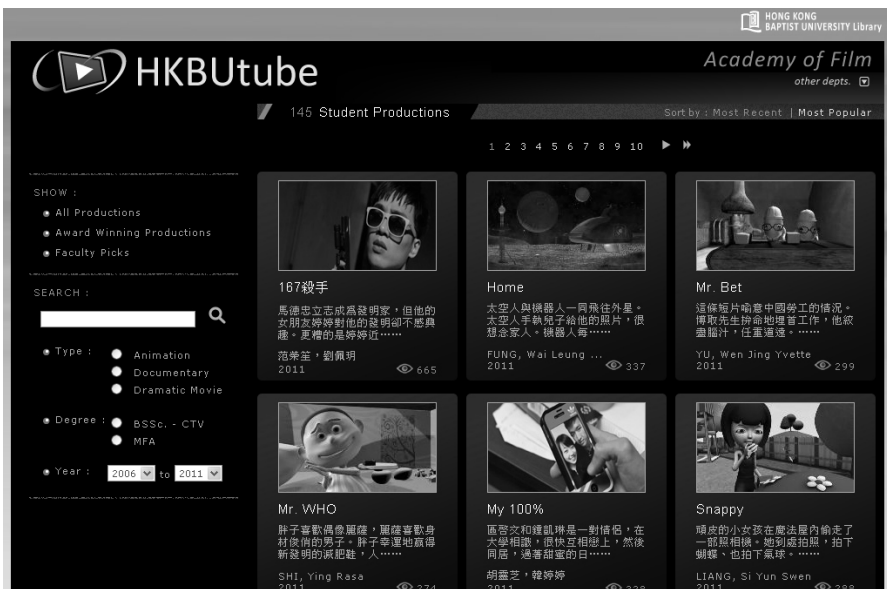
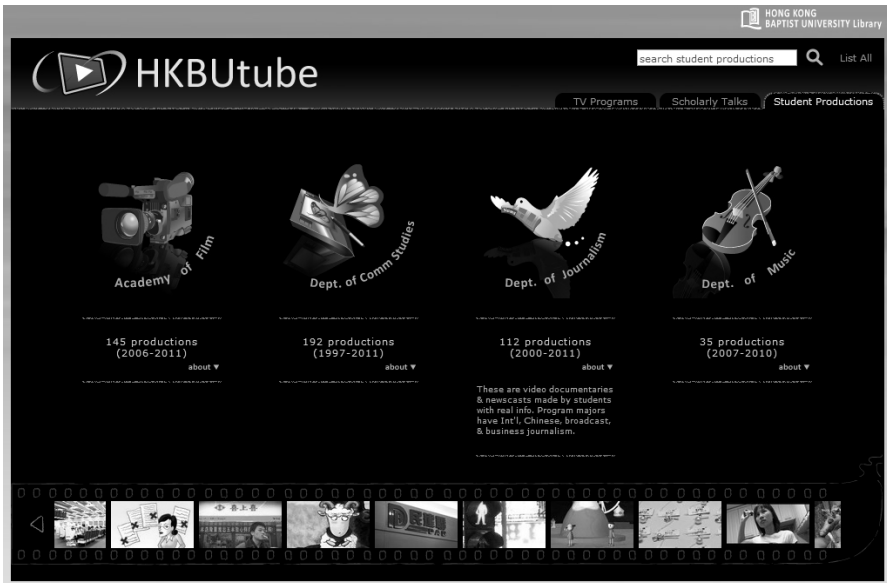


Figure 6: The “Student Productions” Pages of HKBUtube

Communication Studies, and Department of Journalism. In September 2010 and 2011, the Library launched several series of internal and external promotions such as announcements made to all HKBU graduates and internal notices

The screenshot shows the HKBUtube video player interface. At the top left is the HKBU logo and 'HKBUtube' text. At the top right is 'Department of Music' and 'other depts.' with a dropdown arrow. Below the logo is the video title 'Season Opening Concert 2010' and 'HKBU Symphony Orchestra (2010)'. A 'Like' button is visible. The video player shows a scene of an orchestra with a conductor. Text overlays on the video include 'Dr. Mary Wu, Junct Artist-teacher, Schumann - Piano Concerto No. 1' and 'Johnny Poon, Conductor, HKBU Symphony Orchestra'. Below the video is a progress bar and a download link: 'Powered by Microsoft Windows Media Player. Click here to download the player. For Firefox 4 (Windows), also download WMP Firefox plug-in. For Safari (Mac), download Filp4Mac.' Below the video player are buttons for 'Summary' and 'Cite / Share'. A list of recommended videos is on the right, including 'Annual Gala ... HKBU Symphony ... 2009' (103 views), 'Piano Yu, Kai Chi Red 2009' (47 views), 'An Evening of ... HKBU Symphony ... 2008' (60 views), and 'An Evening of ... Fan, Ching Yi Denise 2009' (110 views).

Figure 7: Social networking site icons are added on the video pages

sent to all members of the University. The aim of this effort is to increase public awareness of this online resource. A press release targeting all local newspapers was prepared and distributed. It was noted with pleasure that two daily newspapers used the information provided in these releases as a basis for writing an item about HKBUtube in their education columns. It is not the norm in HK to see reports on library projects appearing in the local media. Thus, the release was not only a valuable marketing tool, and a worthwhile experience but it also gave HKBUtube added visibility within the community. Lastly, the HKBU Library is planning an event in January 2012 to celebrate the success of the HKBUtube projects and announce the release of the iOS app version. This event will have many internal and external guests and the press will be invited to report on the event.

Metadata entries for these student productions are quite different from those for books and multimedia materials that are listed in the library's catalog. Information like video summaries (in both English and Chinese languages), award information, faculty critiques, production/format types, student graduation year and program of study, for example, provide quite important in-

formation about student productions. Conversely, information like subject headings and publisher are less important. Therefore, these student productions are only indexed in the HKBUtube database, without being catalogued in the Library Catalog. Figure 6 provides information on the “Student Productions” pages of HKBUtube. To encourage the usage of these openly accessible videos and also to appeal to young adult Internet users, social network site icons are also added on the video pages, so that users can easily share these videos through their personal pages on Facebook, Twitter and other social media. Figure 7 is a sample of the social networking site icons on the video pages.

## Findings

To date, HKBUtube has been a rewarding project, especially when its usage is compared with similar services from the Library. Both TV Programs and Scholarly Talks were formally launched on September 1, 2009. This enables the retrieval and analysis of data for two full academic years. The collection of Student Productions was launched in August 2010, making it possible to examine data for one year’s usage.

In the first year of service (from September 2009 to August 2010), a total of 20,697 views of online video and 8,318 checkouts of DVDs were recorded for local TV documentaries. This overall usage more than triples (306%) the use of the physical disks in the previous year, when the online video service was not available yet. In the second year (from September 2010 to August 2011), a total of 28,128 views of online video and 6,034 DVD checkouts were recorded. Overall usage had an 18% increase. Currently, the Library still provides DVDs as an alternative choice for users and it has found that the use of the physical counterparts is not influenced by the new online service to any large extent. Documentaries in DVD format still maintain a relatively high level of use (8,318 checkouts in 2009/10 and 6,034 checkouts in 2010/11) in comparison to 9,478 loans in 2008/09. A decline in DVD usage was evidenced within the academic staff and undergraduate student groups. The usage fall off was by 26% and 14% respectively. Conversely, DVD use among graduate students has increased by 13%. For local documentaries, it is believed that professors and undergraduate students are shifting from using DVDs to online videos, but the physical format still holds the interest of some graduate students. At HKBU, most graduate students are working adults who make use of evenings and weekends to study on a part-time basis. They may feel more secure if they can “own” the physical disk for a period of time instead of viewing an online video, which may not be viewable at the time they need due to network problems (which seldom happen), the limitation of their home PCs, or the inadequacy of their IT skills.

Focusing on the use of TV documentaries in 2009/10, after comparing the monthly usage of online video with that of physical disks, both formats were found to demonstrate the same usage trend. Figure 8 provides details on usage. Both formats were heavily used in November, March, and April. They were rarely used during the summer vacation which occurs between the months of June and August. The bivariate correlation ( $r$ ) between the two use patterns was 0.88. This very high correlation suggested that the monthly use patterns of online video and physical disks were closely matched with each other. It is believed that users use both formats for the same purposes; however, further research is needed to verify this.

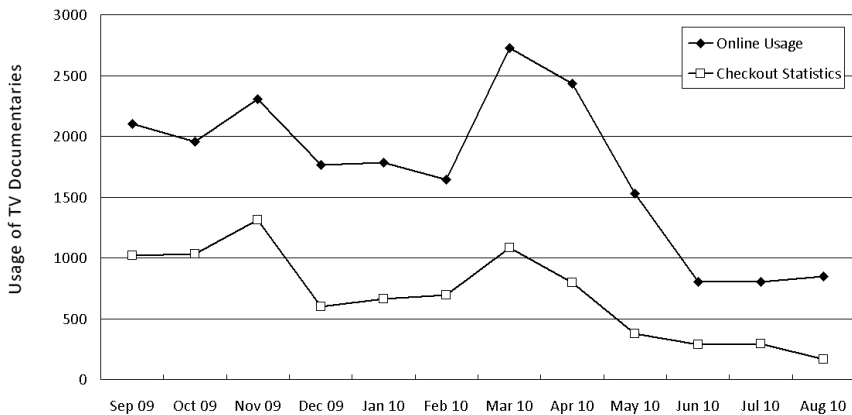


Figure 8: Monthly Usage of Online and Physical Formats of Local Television Documentaries in 2009/10

Between September 2009 and August 2011, a total of 25,472 views of scholarly talks were recorded. As the Library has not provided any other materials whose content is similar to that of the scholarly talks videos, it was not possible to make usage comparisons as was done for local TV documentaries. But simply looking at the usage data of these two years is still interesting. Among these 25,472 views, 34% (8,626 viewings) were viewed on campus and 66% (16,846 viewings) were viewed off-campus in local or international regions. Although it is impossible to tell the identity of these viewers, it is believed that videos of scholarly talks are attracting the interest of a considerable number of insider and outsider viewers. On average, each scholarly talk video was used 98 times. However, the actual usage largely depended on the ways the event organizer treated the video. The most watched video was viewed more than 2,500 times, with more than half of its viewers being located off-campus. The organizer, an Arts department, sent the video link to many sister associations - and institutions around the world for marketing and knowledge-sharing pur-

poses. The department also encouraged its teaching staff and students to watch it for self-studying purposes.

The collection of Student Productions was recently launched, and its collection size is increasing steadily. In the first year of service, this collection has already had more than 102,747 viewings, with 89% being accessed from off-campus. Average usage was 8,562 per month. In order to better understand the learning impact of this online collection, an online survey was conducted among all AF students. A 21.3% response rate was recorded. This survey showed that 85% of respondents found this database helpful to their learning needs. The top three learning impacts were:

1. *Motivating* students to produce *high-quality* work (67%);
2. Enhancing student *motivation* for *learning and doing assignments* (51%); and
3. Helping students *better understand* the *assignment expectations and standards* (38%).

Overall, 85% of student respondents “strongly agree” or “agree” that this online tool is a valuable service that should continue to be provided (Wong 2010).

This particular collection was also promoted overseas through linking some of these videos to several US based social networking sites and online forums, such as Facebook, Twitter and Cinematography.com. Shortly afterwards, usage during the middle of the night jumped significantly, from the original 6% of the overall usage to a current usage of 22%. These viewers mostly watched animated movies – the only video type that has no dialogue. It is believed that most of these users are from another time zone and that Chinese (Cantonese) is not their native language.

This chapter previously noted that the HKBU Library did not only upload video to HKBUtube, it also created a videoblog named *Monthly Pick* (previously, *Biweekly Pick*) to highlight videos and strengthen interactions/contact with and between users. Every two to four weeks, a video was selected for promotional purposes (mostly TV documentaries). A blog message was created to introduce the video and an open-ended question was posted to seek personal perspectives on a topic related to the video.

Regarding the habit of writing blog comments, Synovate Research (2010) found that many HK youngsters preferred to read blogs without making comments. Minocha (2009) also reported that at Warwick University, even though the University has been offering blog space since 2004, many students at Warwick do not blog. The situation at HKBU with regard to blog postings by students was similar. In academic year 2009/10, 19 blog messages were posted. They attracted a total of 74 user written comments amounting to on average 3.9 user comments per post. The blog users generally liked to express their opinions about social issues and library services on this platform. Admittedly,



this is not an appealing result. It can be said however that the use of the videoblog is satisfactory compared to the HKBU Blog that is managed by the University. The HKBU Blog has over 25 Bloggers, who are professors and senior administrative staff currently serving at the University. This space serves to keep the HKBU community updated on developments at HKBU and allow better communication between members of the public and the HKBU's internationalized teaching team. There were 348 messages posted on HKBU Blog between September 2009 and August 2010, with 181 user comments made. On average 0.5 user comments were received per post. Our response rate was 8 times that of HKBU's blog.

Although not many comments were made on the *Monthly/Biweekly Pick*, this videoblog was still important to the HKBUtube service. It demonstrates that the highlighting of video was an effective way to promote an individual program. In 2009/10, 19 videos have been highlighted and each highlighted video was used an average of 79 times a year. This is 16 times the use of non-highlighted videos, which were viewed on average only 5 times. Apparently, users still pay attention to the blog although not many of them submitted written responses.

## Conclusion

The importance of HKBUtube to the University is unquestionable. The online videos were heavily used within campus by staff and students as teaching materials, presentation aids and self-studying resources. Nevertheless, libraries, as primary gateways to information, should also make their information resources available to all. The Internet definitely provides us with the opportunity. The next goal of HKBUtube will be to identify more local multimedia materials and make them openly accessible through the Internet, to both the university community and the general public.

The most recent attempt of the HKBU Library is to try to work with the Academy of Visual Arts (AVA). The Library hopes to get its buy-in so as to be able to include its student productions (using panoramic view technology) in the future. The discussion with the representatives of the AVA has been carried on for more than six months, but many details are not yet agreed upon. If possible, the Library hopes to start working on this phase before May 2012.

For the greater convenience of our existing and potential users, mobile technology will be the next main focus. HKBUtube developed a small-scale trial site for iPhone users to watch selected HKBUtube videos. During the review period, the total use of the app was 2,903 video views and the web counterpart was 3,117 video views. Their proportion was 48:52 (Wong 2012). Based on this finding, HKBUtube decided to launch a formal iOS app to display stu-

dent productions videos. The launch of the full app will take place before January 2012.

Not only do video technologies change, but so too do user behaviors and needs. As a consequence, any information delivery service based on this technology must expect to encounter a number of challenges and adapt, where necessary, to changes in technology and user needs. Additionally, technological developments also provide many opportunities and HKBUtube intends to exploit them fully. Despite these challenges, over time HKBUtube has expanded its service options and provided an important platform to provide OA to a range of teaching and learning materials that otherwise would not have been as accessible. HKBUtube has also created opportunities for the library and teaching departments to develop stronger relationships. It is anticipated that in the near future HKBUtube will be able to share more success stories of this OA initiative with other libraries around the world.

## References

- Bassili, J. N. and Joordens, S. "Media player tool use, satisfaction with online lectures and examination performance." *Journal of Distance Education*, 22.2 (2008): 93-108.
- Green, J. "Why do they call it TV when it's not on the box? 'New' television services and old television functions." *Media International Australia*, 126 (2008): 95-105.
- Hollink, L. and Schreiber, G. "A multidisciplinary approach to unlocking television broadcast archives." *Interdisciplinary Science Review*, 34.2-3 (2009): 253-267.
- Hong Kong Baptist University. *Hong Kong Baptist University: Excellence, Innovation, Whole Person Education*. (2010)  
[http://buwww.hkbu.edu.hk/eng/about\\_hkbu/about\\_intro.jsp](http://buwww.hkbu.edu.hk/eng/about_hkbu/about_intro.jsp) [Mar. 2011].
- Jarrett, K. "Beyond Broadcast Yourself™: The future of YouTube." *Media International Australia*, 126 (2010): 132-144.
- Keen, A. *The Cult of the Amateur: How Today's Internet Is Killing Our Culture*. New York: Doubleday, 2007.
- Madden, M. "The audience for online video-sharing sites shoots up." *Pew Internet and American Life Project*. 2009. [www.pewinternet.org/~media/Files/Reports/2009/The-Audience-for-Online-Video-Sharing-Sites-Shoots-Up.pdf](http://www.pewinternet.org/~media/Files/Reports/2009/The-Audience-for-Online-Video-Sharing-Sites-Shoots-Up.pdf) [Mar. 2011].
- Mayall, H. J. "Integrating video case studies into a literacy methods course". *International Journal of Instructional Media*, 37.1 (2010): 33-41.
- Meikle, G. and Young, S. "Beyond broadcasting? TV for the Twenty-First century." *Media International Australia*, 126. February (2008): 67-70.
- McNaught, A. "Moving images and sound: Inclusive and accessible." Grant C. and L. McKernan, L., eds. *Moving Image Knowledge and Access*. London: The BUFVC Handbook, British Universities Film and Video Council, 2007.
- Minocha, S. "Role of social software tools in education: A literature review". *Education + Training*, 51.5/6 (2009): 353-369.
- Purcell, K. "The state of online video Pew Internet & American Life Project." 2010. [www.pewinternet.org/~media/Files/Reports/2010/PIP-The-State-of-Online-Video.pdf](http://www.pewinternet.org/~media/Files/Reports/2010/PIP-The-State-of-Online-Video.pdf) [Mar. 2011].

- Race, P. and Pickford, R. *Making Teaching Work: 'Teaching Smarter' In Post-Compulsory Education*. London: SAGE Publications, 2007.
- Rubin, N. "Preserving digital public television: Not just an archive, but a new attitude to preserve public broadcasting." *Library Trends*, 57.3 (2009): 393-412.
- Scannell, P. "Television and history: Questioning the archive." *The Communication Review*, 13.1 (2010): 37-51.
- Seldin, P. *The Teaching Portfolio: A Practical Guide to Improved Performance and Promotion/Tenure Decisions*. Bolton, MA: Anker Publishing Company, 2004.
- Spigel, L. "Housing television: Architectures of the archive." *The Communication Review*, 13.1 (2010): 52-74.
- Stephens, M. "Social video: Videoblogging and YouTube." *Library Technology Reports*, 43.5 (2007): 52-57.
- Synovate Research. *Latest Synovate Survey Shows Young Asians Are Inseparable From Their Mobiles*. 2010. [www.synovate.com/news/article/2010/08/latest-synovate-survey-shows-young-asians-are-inseparable-from-their-mobiles.html](http://www.synovate.com/news/article/2010/08/latest-synovate-survey-shows-young-asians-are-inseparable-from-their-mobiles.html) [Mar. 2011].
- Tech Crunchies. *YouTube Usage Statistics and Interesting Facts*. 2010. <http://gorumors.com/crunchies/youtube-usage-stats-facts/> [Mar. 2011].
- Ubois, J. "New approaches to television archiving." *First Monday*, 10.3-7. 2005. <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1210/1130> [Mar. 2011].
- Wagor, W. F. "Using student projects to acquire demonstrations for the classroom and laboratory." *Teaching of Psychology*, 17.4 (1990): 253-255.
- Wieling, M. B., and Hofman, W. H. A. "The impact of online video lecture recordings and automated feedback on student performance." *Computers and Education*, 54 (2010): 992-998.
- Williams, E. "The YouTube dilemma." *Creative Review*, 29.5 (2010): 26-28.
- Wong, S. H. R. "Unleashing the potential of students' film productions." Pacific Neighborhood Consortium Annual Conference and Joint Meetings, Hong Kong. Poster session. 2010. Web. [Mar. 2011].
- . "Which platform do our users prefer: Website or mobile app?" *Reference Services Review*, 40.1 (2012): In press.
- Young, J. R. "YouTube professors: Scholars as online video stars." *The Education Digest*, 73.9 (2008): 14-16.
- YouTube. *YouTube fact sheet: Overview and features*. 2010. [www.youtube.com/t/fact\\_sheet](http://www.youtube.com/t/fact_sheet) [Mar. 2011].













