

Impacts of Public Access in Libraries

Working draft developed by the
International Federation of Library Associations and Institutions
and Electronic Information for Libraries
within the Dynamic Coalition on Public Access in Libraries

Introduction

Policymakers, library authorities and managers, and many other stakeholders who have invested in public access computers and internet in public libraries have a strong interest in understanding what is the use and impacts of this model of digital inclusion. It may be particularly important for them to know, for example, the extent of public access usage by social groups which are more likely to be underserved or digitally excluded, such as senior citizens, rural communities, minorities, and others. They may also want to better understand what social and economic benefits libraries bring to users of public access connectivity, and the society in general.

At the same time, public access providers – such as library managers – may need more data on the functioning, usage and maintenance of their public access infrastructure, on staff competences and training needs, digital skills of the local community, and their users' expectations and needs in regard to digital content and services. They need solid evidence around the need for, and value of investment in the development of library digital infrastructure and services. Faced with these needs, a strong assessment of the impacts and value of public access computers and internet in libraries becomes an important task.

The aim of this report is twofold. The first chapter provides an overview of the recent evidence around the impacts of public access, drawing on a number of studies and reports from different countries. It outlines **who the users of public access facilities are**, what **goals and tasks** they use public access facilities for, what **digital skills training and value-added services** public access enables – and, finally, what the recorded and estimated **benefits this generates** for the users.

The second chapter provides an overview of **quantitative and qualitative methodologies** that have been applied in various studies to evaluate the impact of public access in libraries in different countries. It could serve as a 'toolbox' for those planning new studies on impact of public access in libraries, or other community venues, saving time and resources on adapting tested methodology and instrument, instead of developing from the scratch.

In short, this report summarises both what we know about the impacts of public access to date – and how libraries and other public access providers can go about assessing their own impacts. It is based on both recent reports and publications in this field, and a selection of good practices for public access-related impact evaluation (see Reference Lists 1 and 2).

We hope that this overview can help libraries and other stakeholders engaged in the development and implementation of public access projects (as well as digital inclusion initiatives at large) to have easy access to an overview of current evidence, good practices, and methodologies.

This draft report has been prepared by the International Federation of Library Associations and Institutions (IFLA) and Electronic Information for Libraries (EIFL) – co-creators of the Dynamic Coalition on Public Access in Libraries (DC-PAL) within the Internet Governance Forum (IGF) framework. The idea for this study has come from DC-PAL network consultations held in April 2021, which identified current priorities and set the DC-PAL working agenda for 2021-2022. A working version of this study will be presented for the first time at the DC-PAL session of IGF 2021 on 9 December 2021, and shared for feedback and contributions from the broader internet governance community, libraries, and other stakeholders interested in public access to the internet and the role and potential of libraries.

If you would like to offer feedback, comments, suggestions or ideas, or to ask a question, please contact the working team by sending a message to: valensiya.dresvyannikova@ifla.org. The final version of the study will be made available by the end of the first quarter of 2022, so if you would like to contribute we would appreciate receiving any inputs or feedback by 15 February 2022.

*You are also welcome to join the DC-PAL mailing list for updates and news:
<http://lists.apc.org/mailman/listinfo/pal-dc>*

Key definitions

Public access computers and internet in libraries are any computers and other access devices, as well as internet connectivity, available in libraries for public use.

Public access assessment tools are techniques used to measure and/or appraise various aspects of public access in libraries, such as frequency of use, motivation to use, purposes of use, arising outcomes, and others.

Public access outcomes and impacts include specific benefits obtained from the use of public access facilities and services in libraries. They can be related, for example, to improved knowledge or skills, changes in attitudes or behaviour, or quality of life improvements.

Chapter 1. Impacts of Public Access in Libraries: a Summary of Recent Evidence

Who are the users of public access facilities in libraries today?

Earlier research, particularly the [TASCHA 2013 Global Impact Study](#), helped establish a portrait of public access users - especially in developing countries. In the various public access venues considered (telecentres, cybercafes, libraries and similar), the users tended to be younger (with more than 68% of surveyed users under the age of 25), often from low-to-middle income families (but with considerably fewer users below the poverty line). The majority had a secondary or tertiary education, and for many (33%) public access was the only option to go online (while 15% had no other option for computer access, and a further 15% said the public access equipment was better than the one they could use at home or work).

Other past research has indicated that many libraries also note that their public access facilities are frequently used by more disadvantaged or vulnerable cohorts – such as those currently unemployed, lower-income, at risk of or experiencing homelessness.¹ So what does more recent evidence suggest about the users who benefit from public access in libraries today?

- The [2020 Oxfordshire Digital Inclusion Project](#) report notes that library computers are very actively used by **older community members** between the ages of 50 and 77 (66% of library computer users fall within this category). Furthermore, compared to the British population at large, users of library computers tend to have **lower incomes** (e.g. with 58.4% of users earning £20,000 or less – in contrast with 40.9% of the population at large), and are used by more people who do not own a mobile phone (11.6% compared to 7.6%), or a smartphone (31.1% compared to 20.8%).
- A patron survey in newly established Regional Study and Resource Centers in several public libraries [in Namibia](#) indicated that their free Wi-Fi services were in high demand among **students and learners**, the vast majority of which were below the age of 30. Within this group, around 90% of surveyed library patrons made use of public internet access. Free internet access was also a popular service among patrons of the libraries' business sections (comprising **job-seekers, self-employed and wage earners**), around 95% of which have used the service.
- In [Lithuanian public libraries](#), 44% of users of public internet facilities in 2019 were **between the ages of 45 and 64**. While more library internet users were **employed** (58%) and **middle-income** (39%), **women** represented a significantly larger share of the user base than men (69% v 31%), and **residents of rural areas** used it far more often than urban dwellers (62% v 38%).

¹ See e.g. https://www.sl.nsw.gov.au/sites/default/files/nsw_public_libraries_the_covid-19_response_survey_report.pdf.

When it comes to public access in both libraries and similar points of access (such as community centers), a 2021 report by Thriving in Place San Francisco estimates that 67% of surveyed transition-age youth (18-24), 82% of assisted living housing or care home residents, and 82% of veterans in the city reported using public access computers before the pandemic (<https://www.tipsf.org/digital-equity/pdf/digital-empowerment-report-revP-101221-web.pdf>).

A possible interpretation of this data is that public access can serve a dual purpose: on the one hand, particularly in areas where personal access is still growing, public access can offer a low- or no-cost way to go online, and can be particularly in demand among active user groups (e.g. students, those with a formal education, etc). On the other hand, in areas with comparatively more widespread connectivity, it is an important source of access for those more likely to be digitally excluded (e.g. women, lower-income community members and those with a minority background, rural dwellers, and others.

Who faces a bigger risk of digital exclusion when public access is not available?

The Oxfordshire Digital Inclusion Project findings suggests that just under 20% of library computer users have no internet at home, and more than 30% do not have a computer. This begins to outline the possible consequences of a lack of public access facilities for digital inclusion or exclusion of some users.

The extent to which users of public access facilities have alternative means of going online and using ICTs can also vary significantly across different demographic and socioeconomic groups. Among the surveyed users of the Regional Study and Resource Centers in libraries in Namibia, **secondary school students** were less likely to have access to a computer and/or a fixed internet connection at home than older students (e.g. 28% vs 44% had access to a computer). Among employed library patrons, 52% had a computer and 16% had a fixed internet connection at home, while **job seekers** and **self-employed** patrons were less likely to have this kind of private access (30% and 35% respectively had access to computers at home, 3% and 9% - to a fixed internet connection).

[A 2018 study focusing on Toronto Public Library](#) patrons highlighted that 56% of users were able to make use of public-access technology they would otherwise have had no access to. This rate was higher among **patrons aged 55+** and **those with a lower income** – 68% and 63%, respectively. Among the 56% of users who had no alternative means of access, **younger people** and **those identifying as belonging to a minority group** more often reported having no alternatives for library WiFi (78%), while patrons over 54 within this group were more likely than other users to lack an alternative to library computer workstations (49%).

Why use public access when alternatives are available?

In Lithuania, two reasons cited significantly more often in 2019 than in 2011 were:

- **support and advice** from staff – 46% of users
- using **peripherals** such as scanners and printers – 54% of users

In Oxfordshire, UK, more than 50% of users said it is because the library public computers are **convenient**; and 37% - because they are **free**. More than 30% of users also said that a key reason for them is because the library is **quiet** and/or **safe**.

In Toronto Public Libraries, Canada, 59% of users said they used public access facilities for a **change of scenery**, and 38% used it as a **supplement to other services** or resources at the library.

Other reasons can include, for example, gaps in usual access (e.g. a power outage), or more specific reasons why it is more convenient compared with other sources (e.g. location, quality of connection or of ICTs, locations, less competition with other household members for access...)

Similarly, a [2021 survey focusing on libraries in the United States](#) compared user groups that lost their main point of access to the internet during library closures and those who did not. Among the ~17% of respondents who lost their main point of access, **men, urban dwellers, people speaking a language other than English at home, patrons of Spanish, Hispanic or Latinx background, and Black or African American** users were disproportionately represented.

In summary, while the overall user base of public access facilities depends heavily on the local context, user groups which often tend to be more underserved - e.g. people from minority backgrounds, people with lower incomes, unemployed users or those with more precarious employment, and others - are more likely to depend on public access as their main or only means of accessing the internet or a computer.

Is the use of library public access facilities around the world growing or falling?

Globally, the number of people going online has continued to grow – the total number of users and individual, personal internet subscriptions. How have these trends impacted the use of public access internet and computers in libraries? While national and local dynamics are extremely diverse, some library reports offer some insights on their local internet and computer usage trends over the recent years:

-  - **In Moldova**, following a significant expansion of available public access facilities by the NOVATECA program, [the use of library internet has grown by 711%](#) between 2014 and 2017 (from ~66.000 users to ~466.000), and the use of computers by 700% (~64.000 to ~450.000 users).
-  - **In Canada**, a review of the [Newfoundland and Labrador Public Library System](#) found that between 2012 and 2016 the use of public access computers declined by 26% while the use of public WiFi grew by 125%. Part of the reason for this trend is the increasing use of personal devices by library patrons.
-  - **In Lithuania**, 98% of library internet users surveyed in 2019 said they intend to continue using the library public access facilities.
-  - **In Namibia**, the use of public access facilities in the new Regional Study and Resource Centers in underserved areas was tracked for several years after their construction. During the reporting period between 2016 and 2018, daily computer use across the three locations decreased by 26%, from an approx. 265 to 192 sessions per day. The average use decreased in two libraries and increased in one, with the decline possibly attributed to slower internet speeds and the varying capacities to maintain, repair and replace ICT equipment over its lifespan.
-  - **In the UK**, in a [2017 Netloan Public Library Customer Survey](#), nearly 70% of libraries reported that the use of their public computers had either increased or was stable. The growth was often attributed to the ICT facilities upgrades, as well as to increased rollout of e-government services.

In short, studies from Namibia and the UK help illustrate that well-equipped public access facilities, particularly those that are newly established, expanded, or updated through

additional investments, can see a corresponding rise in use - but, conversely, challenges with equipment maintenance or connectivity quality can lead to a decrease in their usage rates. Furthermore, the example from Newfoundland shows a distinction between the use of public access workstations and WiFi – with the latter growing in demand as ownership of personal access devices among the community grows.

How do people use public access facilities?

To best understand the impacts of public access, some of the studies and reports aim to assess the ways in which, and purposes for which, patrons make use of the offered connectivity and devices. Some of the most common recorded ways patrons have been using public access facilities include the following:

Accessing news or other information online: in Myanmar, following a program to install ICT and free WiFi in 210 public libraries between 2015 and 2020, 64% of visitors used these to access news or learning opportunities. Lithuanian public library users reported searching for different types of key information: about news (53%), health (48%), culture or heritage (40%), online encyclopaedias (53%), and others.

Another distinct type of use revolves around **learning and education** – whether in support of formal schooling processes, or seeking out other learning opportunities. In libraries in [Kenya](#), Namibia, and Moldova and in READ centers in Nepal users reported using computers and/or WiFi to aid their formal education – for example, to complete their homework or coursework.

[A Toronto Public Library study saw 64% of respondents](#) say they use the public access facilities for educational purposes – and this figure was even higher among youth and patrons from minority or migrant backgrounds. The study also highlighted the kind of educational activities carried out – such as taking online classes or tests, finding information or applying for educational programmes or scholarships and student loans.

Job-seeking and improving employment prospects was another key use. This can span several types of activities:

- **directly searching and applying for jobs** – for example, 61% of job-seeking patrons of the three libraries in Namibia reported that in the past 4 weeks they used these computer facilities to apply for jobs or other related activities. In India, 47% of surveyed READ center patrons reported using the ICT resources to look for work. In public libraries in Britain, more than 10% of users reported using the public computers there to apply for a job.
- **career and employment-related skills-building** – e.g. reported by 45% of surveyed Toronto Public Library users – higher among users younger than 35 and those identifying as visible minorities. This included, for example, technical, management, administrative and marketing skills. First Nation respondents were also more likely than others to use the public access facilities for this purpose (48%).

A further 45% of patrons reported using the facilities to build job search skills (higher among the user groups mentioned above, as well as among lower-income patrons) – for example, how to assess job listings and how to build a resume.

Public access facilities are also used for working online, earning money and other financial transactions. For instance, some users in Kenyan libraries and Learn My Way used these facilities to take on micro-jobs, such as transcription. 14% of surveyed users in Lithuanian libraries used the public access facilities to buy or sell goods. Across READ centers in South Asia, 38% of surveyed users reported having searched for information about income-generating activities. 14% of surveyed users in the Toronto Public libraries used the ICT facilities to manage an existing business, and a further 14% - to do business-related research.

Accessing e-government services is another key use of public access facilities. Users in Kenya, Canada, Moldova and Lithuania reported using **digital public services** – which can entail any of accessing these on their own, doing so with on-the-spot help from a librarian, or a distinct service offering help with using e-government tools. For instance, 34% of surveyed users of the Toronto Public Library reported accessing online government services through these facilities. The percentage was higher – above 40% - for users over 55, those with a lower income, or those identifying as a visible minority.

Using public access facilities for **personal communication and social life, or for leisure** is, of course, another part of the picture. In fact, the public libraries in Namibia recorded an increase of computer use for personal reasons among patrons from student/learner user groups over time; while in Lithuania communication was cited by the highest percentage of library users (57%). This kind of use can too have important impacts – for instance, public access facilities in both Moldova and Bhutan reported patrons **communicating with family members abroad**. In Moldova, it was senior patrons who particularly benefited from having this access (i.e. through a dedicated program/service in the library); while in Bhutan [1 in 10 surveyed users of READ Centers](#) used their ICT facilities to connect with relatives out of the country.

These are some of the more regularly cited uses of public access – naturally, the list is not exhaustive. Other types of uses include, for example, creating and/or sharing own content, making financial arrangements or transactions, gaming, and others. In addition, many public access venues have build on their role in enabling these activities – like access to e-government, upskilling, and so on – and introduced dedicated services to facilitate and assist such uses – covered in more detail in the section on value-added services.

In short, public access has shown its versatility in enabling a wide range of uses, from accessing news or specific information online to job-seeking, earning money, education, accessing digital public services and private communications. Some of these (e.g. communicating with relatives abroad, e-learning) can be of particular relevance or more widely used among specific local user groups which can otherwise be underserved (e.g. older users, users from minority backgrounds and others).

From uses to outcomes

While the opportunity for library users to carry out the tasks outlined above can in itself be extremely valuable in the immediate term, some studies also sought to understand and quantify further outcomes of the different ways patrons make use of public access.

An often-cited impact is an **improvement in users' digital skills**. While public access facilities often also offer various types of digital literacy training (further discussed in section 2), the mere availability and use of public access to the internet can help patrons learn to navigate the internet and ICT with more confidence.

This was the case, for instance, with READ Centers across South Asia, where more than 50% of surveyed users reported being more comfortable using computers because of the Center. The 'mere-use' effect on digital skills can also be seen in a [study of hotspot loans in](#) New York, Brooklyn and Queens Public Libraries. This service focused on loaning mobile hotspots rather than offering access on the premises, and while most participants self-reported reasonable digital skills before making use of the service, it led to greater confidence in using the internet among them.

The Namibia study also illustrates that digital skills impacts and benefits could be experienced differently across the various user groups. For example, while among students and learners somewhat fewer women and girls reported having improved their digital skills (45%, as opposed to 58% of boys and men), the opposite trend was observed among business-section library users (wage earners, job seekers and self-employed users): 67% for women and 56% for men.

In the field of education, some self-reported benefits in the Namibia report include better study outcomes – whether it is completing assignments or better performance. These impacts can also be seen when taking into account digital skills training and value-added services enabled by public access (sections 2 and 3). For instance, in Ghana, a [pilot project supported by EIFL in 2015-2019](#) scaled up mobile library services to several partner schools. The mobile libraries, equipped with laptop, solar panels and internet connectivity, helped offer ICT learning opportunities – and, as a result, passing rates in the Basic Education Certificate Exam on the subject of ICT among participating schools rose from around 45% (2015) to 84% (2019).

In the field of employment, impacts can be broadly divided between self-reported improvements in relevant skills and tangible outcomes (e.g. finding a job). In the first category, 60% of surveyed job-seeking patrons of the Namibian libraries reported **better skills associated with employment activities**, while 61% of self-employed users and 59% wage earners reported building skills that enable them to perform better on their jobs. While such gains were broadly attributed to both public access and other library services, many users in this business category assessed WiFi and computers as the most important of the offered resources.

In terms of tangible outcomes, 61% of self-employed users and 52% of wage-earners in the study reported being able to **complete work tasks**; while 39% and 16% respectively reported an **increase in their incomes**.

Among the Toronto Public Library users, 43% of respondents who used library ICT resources to develop employment skills reported high levels of success with their job search. They were successful in finding a job following such activities as finding more information about the profession, assessing job listings, building resume or interview skills using the library public access resources. Notably, patrons with a migrant background were more likely to have used the public access facilities for one of these activities.

Moreover, survey respondents in this study also indicated **creative outputs** of their use of library ICT equipment and services. These included multimedia projects, writing (patrons younger than 35 and from migrant or lower-income backgrounds were more likely than average to report this), as well as video or audio outputs created.

Another broad category of outcomes can be observed in the sphere of **community-building and participation and social cohesion**. Although this may be harder to qualify, 64% of surveyed library users in Moldova reported greater community involvement. The libraries there have been involved in community events and celebrations, charity activities – as well as space for different groups to come together and interact.

In Toronto, patrons also reported using public access facilities in ways that boost community engagement (e.g. access to information and involvement in civic or community groups, volunteering, learning about politics, etc). In total, 80% of surveyed users said the public access and ICT services helped them connect with others and be more social. Notably, users identifying as visible minorities were more likely to engage in such activities.

Finally, additional positive outcomes can also take the shape of **avoided costs or time saved**. One example here comes from the Moldova study, where 85% indicated they saved money thanks to library services. The shared experiences of librarian facilitators illustrates how ICT facilities enable this – particularly access to e-government services that can help save users a trip to the city centre or the capital.

Impacts of Digital Skills Programming in Libraries: A Summary of Recent Evidence

One of the distinct ways many public access facilities work to expand their impact is by offering digital skills learning opportunities. **The scope and reach** of these efforts can be quite extensive: for example, following a series of projects which upgraded the public internet access offer in public libraries in Kenya, over 170,000 library [users followed a training in basic ICT skills](#) over the span of 4 years. In the US, [2016 estimates by the American Library Association](#) suggest that nearly 90% of libraries offer digital literacy or digital skills training opportunities.²

Digital skills-building programming can cover **a wide range of competencies and types of offer**: from basic skills to specific programs (e.g. [Microsoft Office Suite, Adobe, coding](#), robotics, movie editing and digital design, and others). In addition, these learning opportunities can be **targeted**

² Out of the total number of public libraries, which this report estimates at 120,000

toward specific (e.g. underserved) user groups: in Moldova, this included IT classes and skills training for **children with special needs** (e.g. fundamental digital skills, or computer-based painting).

In Australia, the [Tech Savvy Seniors programme in New South Wales](#) saw libraries focus on **older community members** from diverse linguistic and cultural backgrounds. The estimated positive social impacts of the programme range from increased independence, self-esteem and confidence among the participants to practical and behavioural impacts, such as more use of online services, and the ability to pursue hobbies and interests with the help of ICT.

In Colombia, an overview of impacts from the “Project ICT in Public Libraries” estimated that 31% of community members who received digital literacy training were **children** between the ages of 7 and 12; 25% were **teenagers** (between 13 and 17), 13% were young adults (18 to 25) and 21% were adults.

Notably, such training can vary greatly in format - and can be delivered by librarians, partner organisations, or volunteers. Another interesting approach to digital skills training emphasises peer support - for instance, Cambridgeshire Libraries’ *Tea and Tablets* model offers patrons of ages between late 60s to 80s a chance to meet to socialise and swap tips, experiences and ask for advice with using their own devices. While its initial rollout featured staff support for these meetings, the model emphasised peer communication and pointed to the potential for peer-led digital skills learning groups.

The demand for on-the-spot support is another key feature of library public access which is gaining more attention. Data from the UK and New Zealand suggest the substantial demand for this kind of help: in a [2017 public library survey in the UK](#), 46% of responses indicated that the number of requests is growing, with a further 35% indicating it is staying the same.

In [New Zealand, more than 50% of surveyed public library staff members](#) reported habitually helping between 11 and 50 users with digital queries in a week. More than a third of respondents said they spend between 25% and 50% of their working hours supporting users in this manner. In [Oxfordshire libraries in the UK](#), staff members estimated that between patron requests they receive have to do with digital skills or digital services. To help meet this community need, the Oxfordshire libraries run a volunteer-based ‘Digital Helpers’ programme – based on evaluation data between January 2019 and January 2020, it provided more than 800 hours of individual digital assistance.

Aside from the high demand for such support, it is also important to note **which users tend to request this kind of digital assistance**. Here, the Oxfordshire study offers some insights: while people seeking digital assistance tend to be a **little older** on average than library patrons who use public computers in general, the biggest difference was among different income user groups. 35.5% of users, who requested such digital help were in the lowest income category. People in this category make up just 17.4% of the British population overall.

What kind of digital assistance is requested (and received)? Data from New Zealand suggests that more than 20% of library staff provide assistance with some **foundational digital skills** – such as turning on a device, entering account information, using a mouse, keyboard or touchscreen, finding the internet browser icon or locating a specific website - **multiple times a day**. For several of these types of requests, more than 80% of staff reported offering such help **more than once a week**.

Generally, library staff in New Zealand also reported often helping users with other types of digital needs - “**information, social media and entertainment**” (e.g. installing apps or setting up a new personal device, instant messaging, finding travel information , etc), as well as with **research and study online**. Requests around online safety or advanced skills also occurred, but much more rarely.

In short, public access facilities have made it possible to introduce and roll out a great number of digital skills training and learning opportunities - which can be particularly important given that a lack of skills or motivation remain among the key reasons for some users to stay offline. The outcomes of such training can be understood not only in terms of improved digital skills, but also in terms of confidence and independence, and ability to make use of online services and resources more extensively.

In addition, the data above suggest that informal, on-the-spot support with digital queries by librarians is not only in high demand, but can also be particularly important for user groups more likely to experience digital exclusion (i.e. lower-income community members).

Impacts of Value-Added Services: A Summary of Recent Evidence

Finally, the availability of public access to computers and internet in libraries and similar organisations makes it possible to introduce other value-added services to help meet community needs. Some of these services echo and build on the various tasks patrons already tend to use public access for (e.g. learning or access to e-government), while others can promote uses which the patrons might otherwise not have considered or opted for. Below are several examples of such library-based initiatives, drawing on reports and studies aiming to capture their outputs and impacts.

Lifelong learning. As public access is already used by a sizable share of patrons for individual learning (e.g. online courses, homework, etc), public access providers can be well-positioned to go further, and offer more structured and self-contained learning opportunities – much like the digital literacy training outlined in the previous section.

One such area is **advanced ICT skills** – like coding or robotics. In the UK, for example, Suffolk libraries’ WiFi and facilities were used to help deliver a new computing curriculum to local primary school students. These classes emphasised a better understanding of how information technology works and is created (rather than on its common uses), covering topics like logical reasoning in machine instructions, simple programming, and 3D printing.

Some studies help track and examine the impacts of such learning opportunities: in Moldova, for instance, public access facilities made it possible to also set up robotics classes – where 58% of participants reported improved school performance in maths, 51% in physics and 57% in computer science. In Australia, Redlands Library Services have leveraged their ICT resources to set up a code club and host a Robot Bootcamp for children. Both of these activities were estimated to contribute to the community in several ways, notably via providing access to resources for skills-building and by supporting educational attainment.

The types of public-access enabled learning opportunities are of course not limited to ICT-related skills – another prominent example is, for instance, **financial literacy**. One such program is “About finances... in the library”, rolled out in over 200 libraries and communities across Poland to offer personal finances and economic training for adults. The programme is delivered by pre-trained librarians, using a structured e-learning course and online resources and in-library facilities, to help users learn about topics like e-banking, home budgeting, comparing interest rates, and so on – particularly for community members over 50 in small towns and villages.

Broadly, public access can enable learning opportunities in a wide array of subjects and fields. One example illustrating this is the way public access in libraries has been used to **support learning circles** – in-house study groups for community members following an online course. In Kenya, for example, a series of learning circles had been piloted in libraries equipped with computers and internet connectivity. One of the notable impacts was a significant boost in course completion – while globally online courses tend to have a very high dropout rate, the pilot in Kenya saw a completion rate of over 90% among learning circle participants. Similar models have been tested and rolled out in other countries around Africa, such as Uganda and Zambia.

Digital public services is one of reported reasons patrons make use of public access – and some public access venues have built significantly wider offers around this role, providing structured support programmes to facilitate this.

One example here is the ongoing rollout of the “[Digital Government Information Points](#)” in public libraries around the Netherlands. These Information Points can take on different formats – for example, a helpdesk with set consultation hours – and are implemented alongside computer skills classes in libraries as part of the government’s Digital Inclusion Strategy. [An estimation of the societal value these Information Points](#) can help generate includes direct financial benefits – e.g. users being able to claim financial support correctly or waivers to which they are entitled, or even avoid risky debts and finance-related stress, as well as helping ease the demand for user support directly from government institutions.

Another prominent example is the collaboration between [Romanian public libraries](#) and the government Agency for Payments and Interventions in Agriculture. The key goal of this initiative was to offer farmers assistance with completing online subsidy applications. Between 2011 and 2014, this initiative saw more than 116 000 farmers submit their applications for a total amount

of subsidies of \$205 million. The estimated benefits of this offer also include helping farmers save around 230 000 working days in travel time, and about \$1.25 million in travel costs.

Another key category of value-added services focuses on **access to and generation of locally relevant digital content**. In Colombia, for instance, one of the key innovative services adopted as part of the “ICT in Public Libraries” project is “Photography and Memory”, which organises community processes for recovering, digitising and sharing local photographic records. During an initial project observation and evaluation period between March and December 2016, more than 50 000 participants in these initiatives had been reported.

Similarly, in the UK, [a series of case studies around innovative services and activities enabled by library WiFi](#) illustrates other value-added offerings revolving around digital content. These range from creating and re-shaping content online – e.g. an ‘Editathon’ of LGBT-themed Wikipedia articles held in a library in Manchester – to content discovery and navigation. The latter have included, for instance, a beginners’ genealogy research session, helping community members learn how to navigate and make discoveries using local historic sources online (delivered by Norfolk libraries).

As a way to encourage community members to engage with technology and make use of available digital materials, a project in Rotherham libraries in the UK focused on converting existing reading groups to digital, jumping from print to e-books. A particular priority for this initiative were older users and users with visual or print disabilities, and the activities also served as a way to build their digital confidence and encourage informal learning among the participants.

These examples begin to outline the wide array of value-added services that public access venues are able to offer. These can be quite extensive, and help engage more community members: for example, an impact survey by Arts Council England [recorded a strong increase](#) in the number of libraries offering Wi-Fi-enabled services, activities or programmes among libraries receiving a grant to upgrade or install such WiFi – from around 5% of responding libraries in 2014/15, to 23% in 2016/17. The total number of people attending such activities or making use of the services in a year also grew significantly – from around 5.000 (2014/15) to over 40.000 (2016/17).

In short, public access facilities have also been leveraged to deliver a wide range of value-added services – for example, support in accessing e-government and e-learning opportunities. Studies estimating the impacts of such services note an array of possible benefits, from time and money saved, to learning outcomes improvements, as well as some less tangible but no less important impacts like increased confidence, access to opportunities, or reduced stress.

Chapter 2. Impacts of Public Access to the Internet in Libraries: An Overview of Methodologies

Introduction

Public access to the internet and ICTs has become an increasingly part of the work of libraries over the past decades, generating by numerous studies to evaluate its impacts and benefits for users and society at large. This chapter provides an overview of diverse research methods and instruments that public access evaluation studies have used, drawing on studies that focus on different target groups and geographies.

Its goal is to support and ease the planning of similar research on evaluating impacts of public access in libraries on local, national, or regional levels. To do this, it aims to offer a top-level overview and provide examples of the various methodologies and instruments developed and used for this purpose. As such, studies outlined in this section offer examples and illustrations of various methodologies – the source publications include detailed and clear descriptions of their research approach, methodology, and research instruments (see reference list).

The overview features quantitative and qualitative studies that are openly available online and includes direct links to research instruments (and/or data sets) that could be of practical use for library authorities and managers, or other interested actors - for example, to save time and resources on developing methodologies and tools to measure use and evaluate the impacts of library public access facilities and the services built around them.

The scope and focus of public access studies featured in this overview differ from each other, but most commonly they investigate:

- **Physical access to ICT and internet for the public:** what public libraries or other venues offer in terms of public access to the internet (for example, where public access venues are located, what are the working hours, how many workstations are available, what is the Internet bandwidth and whether Wi-Fi is available, what other digital services, training and support to users is available, etc.). Such data can be collected, for example, through inventories of public access venues, as well as surveys and interviews with public access managers and operators.
- **The use of public access and its impacts on users:** who, why and how use public access to the Internet and how they benefit from this use. This data is often collected through surveys, focus groups or interviews with public access users. This overview also discussed methodologies used to estimate the economic value of public access to the Internet, as well as an example of a software-based solution that help track the use of public access.
- **Perceptions and impacts of public access among non-users and the general public:** some studies also look at the need and use of public access and its broader role across the general population, rather than among public access users only. Collecting such data can entail, for example, representative surveys targeting the general population or non-users.

This chapter is structured around these three broad research directions - however, these are of course not mutually exclusive, and some public access studies cover several or all of these areas. Such combinations of target populations, methods and instruments can help researchers get a more comprehensive picture of public access provision, use and impact.

Insights from public access venues and operators: quantitative methods

Public access inventories and staff surveys

Public access inventories are one of the key tools that can help to begin examining the impacts of public access. Such inventories can help determine how widespread public access provision is: how many public access venues are available locally and how they are distributed among diverse categories, such as libraries, telecenters, cybercafes and so on.

Inventories can be done, for example, during the planning stages or at the very beginning of public access projects and programs. This is to collect baseline data about the variety, structure, and geographic distribution of such venues. As the public access rollout continues, some studies repeat the inventory several times to show the evolution of the public access network – or at the end of the intervention, to capture the result of the rollout.

An example of a study which includes such an inventory is the [Global Impact Study of Public Access to Information & Communication Technologies](#) (further - Global Impact Study). The Global Impact Study is the most extensive research into public access carried out at global level to date. Among various other methods, the study includes an inventory of various public access venues, including public libraries, in six countries: Bangladesh, Brazil, Chile, Ghana, the Philippines and Lithuania.

In each of these countries, researchers collected data about the number, types, and locations of public access venues. All venues in the inventory were geolocated, making the data usable for geographic information systems and other analytical techniques. The result of the inventory is a database that offers multiple search options, three different visualizations of the data and the ability to export it in CSV format. All data in this database is distributed under a Creative Commons Attribution Non-Commercial Share Alike license.

See the [inventory dataset](#) of the Global Impact Study.

The inventory became a basis for constructing a representative sample of venues for the survey of venue operators, in order to elicit further information that can support both policy-making, and further evaluation. A total of approximately 250 venue operators were surveyed in around 250 randomly selected public access locations throughout each country. The target population included all venues in the country, both library and non-library based, urban and rural. All surveys were carried out face-to face and administered by the researcher.

The survey for venue operators included the following questions:

- **Basic information** - address, type, years of operation, number of users at time of interview, etc.
- **Layout** - venue configuration and conditions, location, visibility, signage, accessibility using wheelchair, etc.
- **Infrastructure** - number of computers and their technical specifications, electric power conditions and common technical issues faced by the staff and public access operators.
- **Financing and costs** - funding sources, costs, and revenues.
- **Staffing** - number of staff, their demographics and status (paid/unpaid), their skills in ICT and capacity to help users.
- **Services** - what services are provided (e.g. wi-fi, photocopying, printing, scanning, preparing documents for users, public phone use or sale of phone cards, web design for users, training, job placement, assistance with online services such as e-government and e-banking, etc.), the importance of certain features of the venue to users (e.g. working hours, convenience, affordability, etc.), content filtering and restrictions on the use of public access (e.g. gaming, downloading software or videos, etc.), services or features provided specifically for people with disabilities, languages in which staff can attend to users or provide content in the venue.
- **Traffic and usage** - opening hours, number of users per week, traffic of users during different days of the week and different times of the day, age and gender of users, ability of the public access venue to meet users' requirements (e.g., are the computers and connectivity sufficient to meet the demand), main activities performed by users, etc.
- **Venue impacts** – the most important ways in which the public access venue benefits users (e.g., income generation, education, civic participation, ability to interact with the government, ability to interact with other people, sending and receiving money, etc.), including an open question of what has been the biggest impact of public access to ICT at the venue on the community at large.

See the [survey instrument](#) of the Global Impact Study.

While the Global Impact Study has carried out an extensive inventory and survey of numerous public access venues of various types (library and non-library based), such studies are rare. More common is the research of public access on a national level and focused on one type of the public access venue. For example, from 2006 to 2011, in United States (US), [Libraries Connect Communities: Public Library Funding & Technology Access Study](#) was carrying out a bi-annual survey of library directors, which also served as an inventory of public access in US libraries. The survey was conducted online and asked respondents about specific library branches and about the library system to which each respondent branch belonged.

The areas and questions covered in this survey included:

- **Public access availability, connectivity, and access** - opening hours, availability and replacements of public access workstations, sources of IT support, use of public access

workstations and wi-fi, speed of internet connection, ability to meet the demand and possibilities to expand the number of workstations and internet bandwidth.

- **Services related to public access computers and the internet** – the variety and importance of different services related to public access to the Internet. This includes various types of IT training offered at the library, e-government services which visitors can access and receive staff support with, library services for jobseekers, challenges that affect library’s ability to provide these services.
- **Funding of public access** - questions about funding mechanisms for public access, whether funding has changed over time and expected to change in the future.

See [survey instrument](#) of the “Public Library Funding & Technology Access Study”.

Other studies, for example [Library as a Space for Digital Inclusion](#) in New Zealand, examine public access in a broader context. This can entail a focus on libraries’ role in promoting digital inclusion, especially for people with otherwise limited access to networked technologies, or those lacking skills and knowledge about the digital world. The study surveyed both library managers and staff involved in the provision of public access.

The library managers’ survey focused on creating an inventory of provision of digital devices, applications and services to the public. It included questions in the following areas:

- **General questions about the library** – location, number of users served, etc.
- **Digital strategies** of local authorities and the library’s role in these strategies.
- **Services** – what digital devices (equipment such as a computer, smartphone, laptop, or tablet), digital applications (software program or an app) and digital services (information, training, support, or resources) are offered by the library.
- **Partnerships** with external organisations focused on digital inclusion.
- **Professional learning and development** for library staff and managers engaged in supporting library users’ digital needs.

The library staff survey aimed to collect more data on the ways library staff helps support digital inclusion, and therefore the questions also focused on the types of digital activities they help library users with. Specifically, the survey included questions about:

- **Staff demographics**
- **Current knowledge, perceived importance, and interest in digital technologies of staff**
- **Staff skills** with digital technologies and skills to support library users’ digital needs (needs for digital devices, software and apps, digital literacy training and support), and how frequently this support is offered.
- **Professional learning and development** they had engaged in within the last 12 months and their needs for further digital skills development.

See the [survey instruments](#) of the “Library as a Space for Digital Inclusion” library managers’ (page 53-60), and library staff (page 61-70).

Insights from public access venues and operators: quantitative methods

Staff interviews

Another way of getting more data about the state of public access is via interviews with public access managers and staff. While this type of data collection is qualitative rather than quantitative in nature, such interviews usually explore topics similar to those in surveys described above: public access infrastructure and services available, use and benefits for users, challenges and plans for public access development.

To see the kinds of data that can be obtained through interviews with library managers and staff, one could look at the [Cross-European survey to measure users' perceptions of the benefits of ICT in public libraries](#), conducted in 17 European Union (EU) countries: Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Greece, Italy, Latvia, Lithuania, Netherlands, Poland, Portugal, Spain and the UK. The study combined desktop research to collect key information about participating libraries, representative surveys of the general public, a survey of public access users, as well as qualitative data-gathering to better understand the perspectives of both library users and staff.

The aim of the qualitative research in this study was to get a more detailed picture of the ways public access in libraries can help communities reach their goals. It collected information about how librarians use public access for providing digital skills training programmes for local communities, as well as other activities and training in a variety of areas, including lifelong learning, employment, developing business skills, using e-government, and improving their health.

A total of 5 in-depth staff interviews (around 60 minutes each) were conducted in each country. The interviewees were various staff members, including senior librarians with strategic roles in developing and supporting public access, as well as those playing more technical roles.

To conduct the interviews, interviewers used discussion guides, which gave an indication of the topics to be covered, the approximate time to be apportioned to each area of discussion and to provide guidance around possible areas of investigation. The information collected through these interviews was intended to provide narratives, stories or case studies which illustrate the benefits of public access in libraries. These can be used to provide evidence to the EU, national governments, and other library support organisations of the impacts of these library services and offerings.

See the [interview instrument](#) of the “Cross-European survey to measure users' perceptions of the benefits of ICT in public libraries”.

In short, the studies described above show that surveys and interviews with managers and operators of public access facilities can offer extensive information about public access

infrastructure, provision, management and funding. This can be a powerful basis for supporting planning and programming. To some extent they can also capture data about the use of public access and perceived impacts on users and surrounding communities, especially in the context of digital inclusion.

Insights from public access users: quantitative methods

User surveys

User surveys are often a key source of data for studies examining the outcomes and impacts of public access in libraries. Such surveys can help understand who uses library public access facilities, how and why. Furthermore, they can help capture benefits arising from this use. Many such surveys are administered online, on library computers – another alternative is paper surveys, which can be particularly useful for reaching users who are less experienced with ICT.

Multiple studies have applied this method for collecting data on the use of public access computers and connectivity. For example, from January to June 2020, The Oxfordshire [Digital Inclusion Project](#) (UK) conducted a survey of public access users in libraries. In total 1273 surveys were submitted, 92% of which were filled online using library computers. The data collection was structured around four main questions:

- **Who uses library computers?** This section included age, income, occupation, and self-reported digital skills.
- **Why do people use library computers?** This section included reasons for using computers in the library, such as convenience, opportunity to use the service for a free, safe, and quiet environment, having no computer at home, getting help at the library and having no internet at home and others.
- **How do people use library computers?** This section offered a list of 18 options of different activities, and an opportunity to write-in a response if the option was not on the list.
- **What do people ask for help with?** This section offered a lot of alternatives, such as printing the document, accessing library resources, scanning the document, sending, or reading an email and so on.

Public access user surveys were also part of the [evaluation studies](#) of all public library computing projects funded by Bill and Melinda Gates Foundation's Global Libraries initiative (GL). Through the international public library development work of the GL, over 15 countries received large-scale grants for setting up public access in libraries. All these grants included a strong focus on performance measurement and impact assessment, and have used a specific outcomes-focused assessment approach adopted by GL. Though the methodologies and the instruments used differ from country to country to some extent, common assessment elements across all of them included:

- **Frequency of use:** Introductory questions that determine which public library services respondents have used in the last 12 months and whether the library is their only free point of access to the Internet.
- **The use and impact of technology:** Questions related to the uses of public access technology (e.g., computers, Internet, WiFi) and ways in which it may have helped users (e.g. saving money, saving time, etc.).
- **The use and impact of ICT-enabled services:** Questions related to the development of digital skills through training or assistance from library staff or volunteers.
- **Demographic questions:** Questions to provide information on the characteristics of survey respondents and assist with disaggregating data where necessary.

To understand the ways in which public access is used by patrons, surveys of GL-funded projects explore the following broad categories of benefits or activities: Digital Inclusion, Culture and Leisure, Education, Communication, Economic Development, Health and Government and Governance. GL grantees also complemented these surveys with interviews and focus group discussions with public access users.

See an example of the [survey instrument](#) for GL-supported national initiatives.

User surveys also were distributed in the aforementioned [Global Impact Study](#). The user survey collected information on users' characteristics, usage patterns, and perceived impacts of using public access. In terms of outcomes and impact, the study sought to capture benefits to users across the following broad domains of life (which have a number of similarities with those used by Global Libraries):

- **Communications & Leisure** – the domain covers the recreational, interpersonal communication and social interaction aspects of people's lives. It includes activities such as contacting friends and family, playing games, and pursuing hobbies.
- **Culture & Language** – the domain relates to participation in the creation and maintenance of community, national, or other type of identity. It includes activities such as searching for cultural events and producing online content in local languages.
- **Employment & Income** – the domain relates to the income-generating sphere of people's lives. It includes elements such as overall income, access to employability services, searching and applying for jobs, and sending or receiving remittances.
- **Education** – the domain covers formal and informal educational undertakings. It includes activities related to formal education such as taking a class, applying for admission, or doing homework, as well as less institutionalized activities such as general information searches on topics of personal interest.
- **Governance** – the domain is narrowly defined to apply to the provision and use of government services. It includes activities such as finding and accessing online government services.
- **Health** – the domain refers to health and wellbeing. It includes elements such as searching for information about a medical condition, finding a doctor, and using online health services.

See the [user survey instrument](#) of the Global Impact Study.

Another example of a user survey comes from the aforementioned [Library as a Space for Digital Inclusion study](#) (New Zealand). Alongside questions which often feature in public access user surveys (such as user demographics, frequency of use, digital access needs and reasons for using library public access computers), this study includes such questions as:

- **Difficulties that make it harder for people to use computers** (e.g., eyesight, hearing, moving, language, etc.)
- **People's motivation to use various online services**
- **People's confidence in online safety** (e.g., protection of personal information, recognizing online scams, etc.).

Another interesting aspect of this survey is that it also includes an open question about what other digital devices or services people would like to be able to access and use at the library that aren't there now. This question provides information needed by libraries to develop new services or programmes based on public access.

See the [public internet access user survey instrument](#) (page 71-81) of the "Library as a Space for Digital Inclusion" study.

Insights from public access users: qualitative methods

Interviews and focus groups

As discussed earlier, many public access studies combine quantitative methods, such as surveys, with qualitative methods, such as interviews or focus groups, to get more insights into public access impacts and user experiences.

One example of such a combination is the aforementioned [Cross-European survey to measure users' perceptions of the benefits of ICT in public libraries](#). Alongside other methods, such as desktop research and a number of surveys, the study conducted focus group discussions with public access users. These focus groups were carried out with the help of discussion guides, which included questions about the use of public access in the library, reasons for using public access, satisfaction with public access and library staff support. Lastly, focus group participants were asked to share personal stories of how using public access in the library has made a difference in their lives.

A total of 4 discussion groups (around 90 minutes each) were conducted in 17 countries. The results of this qualitative research were mainly intended to provide success stories or case studies that illustrate the benefits of public access to the Internet in libraries.

See [focus group instrument](#) of the "Cross-European survey to measure users' perceptions of the benefits of ICT in public libraries".

Multi-focus surveys using software-based solutions

There are also software-based integrated solutions which help understand the functionality and impacts of public access by collecting several types of data from multiple target audiences.

One example is [the Bridge Technology Services Assessment Toolkit](#) (Bridge) which collects evidence of the value and impact of public access, Wi-Fi services and digital literacy training and support in Ontario public libraries. It was developed in 2016 by Toronto Public Library (TPL) in collaboration with an international consulting firm Nordicity. “Bridge” is a customizable web-based application for libraries to capture and analyse performance and outcome data on technology services (public access to the Internet, Wi-fi, digital literacy training and support).

Using this application libraries have measured:

- **Availability:** the volume of services offered, such as the number of public access workstations, digital literacy training programmes, or the availability of Wi-fi.
- **Usage:** the uptake of these services by library customers – for example, the number of users of public access workstations or of participants in a digital literacy training program.
- **Outcomes:** the kinds of activities and results that public access enables for library customers.
- **Service delivery:** how prepared frontline staff are to answer patron questions about the technology-related services they support.

Tracking these indicators across time and different library locations can help identify broader trends and put the results into context. The system also allows to track outcomes that arise from the use of public access to the Internet, Wi-fi and digital literacy training and support, such as contribution to:

- **Community, social and civic engagement:** Increased community cohesion, and social and civic participation.
- **Creativity and innovation:** Engagement in the creative process enabling self-expression, and creative and innovative content.
- **Entrepreneurship and business development:** Support to start, manage, and grow small businesses which support employment.
- **Workforce development:** Preparation of jobseekers for the workforce through educational activities, employment, professional development, and lifelong learning opportunities.

This system uses data from two main surveys – one targeted at customers and another at staff. The customer survey first asks which technology services the customer had used within the past month. Based on the services they report having used, customers are then asked questions about the related impacts and outcomes resulting from using the service. The customer survey also asks both mandatory and voluntary demographic questions. This makes it possible to present general survey results alongside results filtered by specific demographic groups. The staff survey gathers

data about the availability and usage of public access, as well as feedback from frontline service delivery personnel.

The pilot rollout of Bridge has demonstrated how the tool enables public libraries to show and compare the outcomes achieved by library technology services with other libraries across the province. At the same time, the project concludes that the use of Bridge, much as any other software-based solution for gathering and interpreting data, requires a basic level of comfort with, understanding of, and capacity to make sense of the data and insights generated.

To maximize the benefit of such a tool, libraries need to draw on both data collection and analytic capacity and skills, while ensuring that they safeguard the privacy of users and do not create cybersecurity threats through the unnecessary retention of personal data. The relevance and effectiveness of such tools therefore depends on finding ways to collectively build capacity and skills for library staff.

Economic value of public access

Another subset of studies also seeks to measure the economic value of public access for users. Several methodologies exist for making such an assessment or estimation – and among these, some of the most widely used ones include Market Pricing (MP) and Contingent Valuation (CV). Such an assessment can be done as part of a *return on investment* or *cost-benefit* analysis (ROI), which demonstrates the ratio between the expenses associated with providing a service or offering, and the benefits it generates.

For example, the economic value of public access in libraries has been estimated as part of [“The Economic and Social Value of Information Services: Libraries”](#) (Spain, 2014). This study uses two methods to make this calculation:

The market pricing-based assessment in this study draws on public library use statistics, and estimates the total economic value of public access – and cost-saving that it enabled – by comparing it with similar services available on the market. Library statistics indicated that approximately 130,000 individuals per quarter visited a library to connect to the Internet, doing so on average 12 times during that period. This amounts to over 7.6 million library visits to use public access services. The average price of going online in cybercafés or similar establishments was estimated at €2.00/hour, while on average libraries in Spain provided this service for €1.50/hour. This indicates that public access in libraries has enabled total savings of €11.4 million for its users.

In parallel, the study surveyed adult public library users, asking them to estimate what public access to the internet would have cost them if it had been provided by a private company. The survey respondents indicated that the public access services they used during the month prior to participating in the questionnaire would have cost €17.70/month if provided by a private company (equivalent to €212.40/year).

A similar methodology was applied in a study "[Economic value and impact of public libraries in Latvia](#)" (2012). This study uses both MP and CV valuation methods, as part of an ROI/cost-benefit calculation. Using the CM method, a survey of public library users invited them to choose the sum they would be willing to pay (e.g., in higher taxes) to maintain or willing to accept (e.g., in lower taxes) to give up their access to certain library services, including public access to the internet.

A similar approach was used to calculate the value of benefits obtained from public access-related services – individual consultations on using computers and the internet, and digital skills training programmes. A subsequent cost-benefit analysis revealed strong net benefits for the service providing access to PCs and the internet - highest among all evaluated library services. Overall, users' willingness to pay for a single use of the abovementioned library services was as follows:

- 0.63 EUR³ for 1-hour use of PCs and internet
- 1.9 EUR for a 1-hour ICT training class
- 0.43 EUR for a 15-minute ICT consultation

The studies described above illustrate that one of the most widely used ways of gathering data about public access use and impacts is from public access users, for example through surveys or focus groups. Such methods can be combined to get further insights into user experiences with public access.

The outcomes of public access are often measured around a number of key broad domains such as education, communication, civic engagement, employment, culture, health and others. However, it is of course important to make sure that, in a given study, such categories are defined in a way that fits with the local situation and practices. User surveys can also help gain insights about barriers to public access use, and needs or demand for new services related to public access.

Perceptions and impacts of public access among non-users and the broader population

Some studies examining the outcomes and impacts of public access in libraries take a broader approach and investigate its role and value from the perspective of the general public, rather than that of service providers or users only. Studies that take this approach can be based, for example, on a nationwide representative survey of the adult population.

One examples is the aforementioned [Cross-European survey to measure users' perceptions of the benefits of ICT in public libraries](#). In addition to quantitative and qualitative studies of library staff and users, it includes a survey of a representative sample of the population aged 15 and

³ Note: At the time of study the estimates were made in local currency, but the results have been converted using 1 LVL=1,3993 EUR exchange rate.

over in each of the 17 countries studied in the research. The survey analyses the use of public libraries, the range of places to access computers and internet, frequency of usage and sociodemographic data.

See the [general public survey instrument](#) of the “Cross-European survey to measure users’ perceptions of the benefits of ICT in public libraries”.

Surveys of the general population can also be a good strategy to get more insights about non-users and reasons for not using public access services. Some studies seek to measure this directly: the [Global Impact Study](#), for example, conducted a survey of non-users in locations close to selected public access venues. This survey gathered information on the characteristics of non-users, what their reasons for not using public access are, and their perceptions of indirect impacts of public access. The latter includes such dimensions as, for example, benefitting from when someone uses available public access on their behalf, or positive social or economic benefits for their friends or family members who have used public access.

See the [non-users survey instrument](#) of the Global Impact Study.

Surveys targeting the general population and non-users can help understand the broader context of impacts and perceptions around public access. Such studies can help outline what percentage of population is using public access venues, what alternative places of access are available to them, what their motivation to use or not use public access venues is, and their perception about the needs and values of public access in general.

Conclusions

This chapter has outlined the diversity of quantitative and qualitative methodologies available for evaluating the use and impacts of public access in libraries. This overview has illustrated a range of methodologies which have been applied in various countries, both quantitative and qualitative, – and the data and insights these have been able to yield.

As public access studies discussed in this section illustrate, such undertakings are often multifaceted and combine data from different target populations (e.g. library users, library managers and staff, general population) and data obtained from quantitative and qualitative methods. Such an approach allows a more comprehensive evaluation of public access in libraries. At the same time, narrower and more focused studies, for example those limited to public access users only, can also give useful and in-depth insights on the benefits and outcomes of public access.

As these examples show, there are many possibilities. Methodologies exist to evaluate various aspects of public access in libraries. The challenge for those tasked with evaluating the impact of public access, is to find the methodology that best fits their specific context and objectives of their evaluation.

Reference list

Chapter 1

1. Sey, A., Coward, C., Bar, F., Sciadas, G., Rothschild, C., and Koepke, L. (2013). Connecting people for development: Why public access ICTs matter. Global Impact Study of Public Access to ICTs. Final research report. Seattle: Technology & Social Change Group, University of Washington Information School. Available at: https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/22753/Global_Impact_Study_2013.pdf?sequence=1&isAllowed=y
2. Allmann, K., Blank, G., Wong, A. (2021). Libraries on the Front Lines of the Digital Divide: The Oxfordshire Digital Inclusion Project Report. Centre for Socio-Legal Studies. University of Oxford. Available at: <https://www.law.ox.ac.uk/research-and-subject-groups/oxfordshire-digital-inclusion-project>
3. Coward, C., Fellows, M., Rothschild, C., Yim, M. (2020). Namibia's Regional Libraries. Final Report of the Regional Study and Resource Center (RSRC) Activity Evaluation. Seattle: Technology & Social Change Group, University of Washington Information School. Available at: https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/46228/Namibia_LibraryEvaluation_FinalReport.pdf?sequence=1&isAllowed=y
4. Cantar (2019). Lietuvos viešųjų bibliotekų interneto vartotojų tyrimas. Available at: <https://lnb.lt/informacijos-mokslu-specialistams/atlikti-tyrimai>
5. Nordicity (2018). Technology Access in Public Libraries: Outcomes and Impacts for Ontario Communities. Nordicity for Toronto Public Library. Available at: <https://www.torontopubliclibrary.ca/content/bridge/pdfs/nordicity-full-report.pdf>
6. Guernsey, L., Prescott, S., Park, C. (2021). Public Libraries and the Pandemic. Digital Shifts and Disparities to Overcome. New America. Available at: <https://www.newamerica.org/education-policy/reports/public-libraries-and-the-pandemic/>
7. Netloan (2018). Netloan Public Library Customer Survey Results 2017. Available at: <https://www.lorensbergs.co.uk/casestudiesandresearch/public-libraries-2018-netloan-customer-survey-results/>
8. Good Things Foundation. Testing Digital Inclusion in Kenya. Available at: <https://www.goodthingsfoundation.org/insights/digital-inclusion-kenya/>
9. READ Global (2018). Technology Program Overview. Available at: <http://www.readglobal.org/wp-content/uploads/2018/11/readglobaltechnologyoverview.pdf>
10. USAID, Novateca, IREX, Civitta (2018). Novateca Program Impact Assessment Study. Available at: https://pdf.usaid.gov/pdf_docs/PA00TN1N.pdf
11. Strover, S. (2019). Public libraries and 21st century digital equity goals. Communication Research and Practice, vol. 5. Available at:

https://www.tandfonline.com/eprint/A9HZwYFunPdnaW3WhMSm/full?target=10.1080%2F22041451.2019.1601487&utm_campaign=Newsletters&utm_source=sendgrid&utm_medium=email&

12. EIFL (2019). Changing Children's Lives in Ghana. Available at: https://www.eifl.net/system/files/resources/202005/eifl_ar_2019_ghanafeature_web.pdf
13. Muchai, J. (2018). Transforming Public Libraries in Kenya through Technology. Available at: https://www.scecsal.org/publications/papers2018/004_muchai_2018.pdf
14. American Library Association (2016). America's Libraries: Powering Broadband Adoption, Access, And Use. Available at: https://www.ala.org/news/sites/ala.org.news/files/content/Broadband_11-08-16_0.pdf
15. Project Outcome, Public Library Association (2017). Measuring the Impact of Digital Literacy Services with Project Outcome & DigitalLearn.org. Available at: https://www.ala.org/pla/sites/ala.org.pla/files/content/onlinelearning/webinars/archive/9-14-17_Project-Outcome_Slides-final.pdf
16. Telstra Corporation Limited and New South Wales Department of Family and Community Services (2018). Social Return on Investment Tech Savvy Seniors NSW CALD. Available at: https://www.sl.nsw.gov.au/sites/default/files/tss_nsw_cald_sroi_report_may_2018.pdf
17. Hartnett, M., Butler, P., Mentis, M., Carvalho, L., and Kearney, A. (2020) Public Libraries as Spaces for Digital Inclusion. Connecting Communities Through Technology. Institute of Education, Massey University, New Zealand. Available at: https://www.librariesaotearoa.org.nz/uploads/2/4/6/4/24640423/public_libraries_and_digital_inclusion_research_report.pdf
18. Shared Intelligence (2016). Making the Most of WiFi. National learning and case studies. A report to Arts Council England by Shared Intelligence. Available at: <https://www.artscouncil.org.uk/sites/default/files/download-file/Making%20The%20Most%20of%20Wifi.pdf>
19. Digital Media Research Centre, Queensland University of Technology (2016). The Impact of Libraries As Creative Spaces. User Guide. Available at: <https://content.plconnect.slq.qld.gov.au/sites/default/files/SLQ-creativespacesuserguide-2016.pdf>
20. Bon, M., Dervarič, M., Kavčič Čolić, A., Marian, M., Marian, T., Morawska, K., Tarnowska, B., Vartonick, R., and Zlateva, E. (2020). Project Finlit Financial Literacy Through Public Libraries (Erasmus+) Mapping Report . Available at: https://finlit.eu/edu/pluginfile.php/424/mod_resource/content/4/2020_03_30_Finlit_MappingIO1.pdf
21. FRSI – Information Society Development Foundation. O finansach... w bibliotece. Available at: <https://frsi.org.pl/en/project/o-finansach-w-bibliotece-2/>
22. Fairbairn, J. (2019). Learning circles a hit in African public libraries. EIFL. Available at: <https://eifl.org/blogs/learning-circles-hit-african-public-libraries>

23. ECORYS (2020). Informatiepunten Digitale Overheid in Openbare Bibliotheken. Onderzoek in opdracht van de Koninklijke Bibliotheek en de Manifestgroep-partijen. Available at: <https://www.bibliotheeknetwerk.nl/sites/default/files/2020-06/bbv-Exploitatiemodellen-en-rendement-Informatiepunten-Digitale-Overheid-in-Openbare-Bibliotheken-rapport.pdf>
24. IFLA (2017). Public libraries in Romania facilitate access to agricultural subsidies. Available at: <https://librarymap.ifla.org/stories/Romania/PUBLIC-LIBRARIES-IN-ROMANIA-FACILITATE-ACCESS-TO-AGRICULTURAL-SUBSIDIES/21>
25. Biblioteca Nacional de Colombia. Fomento de servicios innovadores con el uso de las TIC. Available at: <https://bibliotecanacional.gov.co/es-co/Footer/red-nacional-de-bibliotecas-publicas/proyecto-tic-en-bibliotecas-publicas/componentes/fomento-de-servicios-innovadores-con-el-uso-de-las-tic>

Chapter 2

1. Sey, A., Coward, C., Bar, F., Sciadas, G., Rothschild, C., and Koepke, L. (2013). Connecting people for development: Why public access ICTs matter. Global Impact Study of Public Access to ICTs. Final research report. Seattle: Technology & Social Change Group, University of Washington Information School. Available at: https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/22753/Global_Impact_Study_2013.pdf?sequence=1&isAllowed=y
2. Hoffman, J., Bertot, J. C., Davis, D. M., and Clark, L. (2011). Libraries Connect Communities: Public Library Funding & Technology Access Study 2010-2011. American Library Association. Available at: https://www.ala.org/tools/research/initiatives/plftas/2010_2011#final%20report
3. Hartnett, M., Butler, P., Mentis, M., Carvalho, L., and Kearney, A. (2020) Public Libraries as Spaces for Digital Inclusion. Connecting Communities Through Technology. Institute of Education, Massey University, New Zealand. Available at: https://www.librariesaotearoa.org.nz/uploads/2/4/6/4/24640423/public_libraries_and_digital_inclusion_research_report.pdf
4. Quick, S., Prior, G., Toombs, B., Taylor, L., and Currenti R. (2013). Cross-European survey to measure users' perceptions of the benefits of ICT in public libraries. TNS (funded by the Bill and Melinda Gates foundation). Available at: <https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/22718/Final%20Report%20-%20Cross-European%20Library%20Impact.pdf?sequence=1>
5. Allmann, K., Blank, G., Wong, A. (2021). Libraries on the Front Lines of the Digital Divide: The Oxfordshire Digital Inclusion Project Report. Centre for Socio-Legal Studies. University of Oxford. Available at: <https://www.law.ox.ac.uk/research-and-subject-groups/oxfordshire-digital-inclusion-project>

6. Al, U., Andrade Blanco, P., Chiranov, M., Cruz Silva, L.M., Devetakova, L.N., Dewata, Y., Dryžaitė, I., Farquharson, F., Kochanowicz, M., Liubyva, T., López Naranjo, A., Phan, Q.T., Ralebipi-Simela, R., Soydal, I., Streatfield, D., Taolo, R., Trần, T.T.T. and Tkachuk, Y. (2015). Global Libraries impact planning and assessment progress. *Performance Measurement and Metrics*, Vol. 16 No. 2, pp. 109-131. Available at: <https://doi.org/10.1108/PMM-05-2015-0015>
7. Nordicity (2018). *Technology Access in Public Libraries: Outcomes and Impacts for Ontario Communities*. Nordicity for Toronto Public Library. Available at: <https://www.torontopubliclibrary.ca/content/bridge/pdfs/nordicity-full-report.pdf>
8. José Antonio Gómez Yáñez (2014). *The Economic and Social Value of Information Services: Libraries*. FESABID Study conducted by Estudio de Sociología Consultores. Available at: <http://fesabid.org/wp-content/uploads/repositorio/economic-social-value-information-services-libraries.pdf>
9. Strode, I., Vanags, A., Strazdina, R., Dirveiks, J., Dombrovska, J., Pakalna, D., and Paberza, K. (2012). *Economic value and impact of public libraries in Latvia: Study report*. Culture Information Systems. Available at: <https://culturelablv.files.wordpress.com/2009/04/economic-value-and-impact-of-public-libraries-in-latvia.pdf>