Connecting Libraries to Empower Communities

Insights from the Libraries Boosting Connectivity initiative

March 2026

Connecting every library to the internet is a powerful way to ensure all members of society, throughout life, have access to information and opportunity. The **Libraries Boosting Connectivity (LBC)** project is an IFLA initiative piloted between 2023 and 2025. It aimed to collect crucial data on how libraries are navigating and adapting to the digital landscape through a comprehensive survey.

Why this project matters

Digital access is essential for libraries. Knowing where they stand in terms of connectivity, gives them power to strengthen their ability to serve communities. Many libraries and associations around the world have carried out their own assessments to better understand where they are in terms of connectivity, however, many of these efforts remain fragmented.
While individual efforts are valuable, an ambition of this project is to achieve an open access digital space that can provide the global library network with a platform to compare and explore digital-related data between different countries and serve as a tool for partnership and collaboration with external stakeholders that might be interested in supporting or funding library-led digital initiatives.

Methodology

The survey served as the primary mechanism to collect data and while it was open to all types of libraries, it focused primarily on public and community libraries, due to their role as free and universally accessible spaces. The information collected analyzed two areas: firstly the geolocation and connectivity status of each library (including average download speed, permanence, type of connection and related factors), and secondly the state of the infrastructure, available resources and types of digital-related training that those libraries offer. It also examined the perceived value and impact of these efforts as reported by library staff. While most of the libraries that participated in the project are connected to the Internet, a certain number of unconnected libraries was also surveyed with the objective of understanding the barriers that they face to obtain access to the Internet and to adequate devices.

The data gathering process was led by regional coordinators in collaboration with IFLA. A website will be published upon the conclusion of the pilot phase of this project, which will serve as a starting point to continue deepening our understanding of the digital readiness of the global library field. The website will be aligned with the International Telecommunications Union (ITU) and the United Nations Children's Fund (UNICEF) GIGA initiative, that aims to connect every school to the Internet by 2030. The objective of this alignment is to highlight the natural synergies there are between schools and libraries as

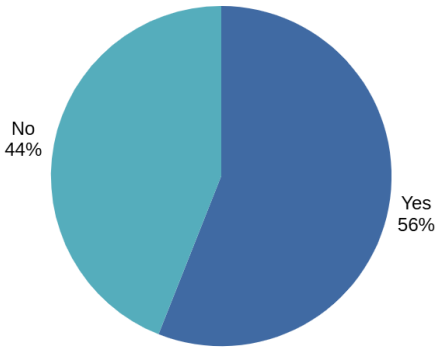
two global networks that serve as anchor institutions for equitable access to information across the world.

The LBC survey was also openly disseminated via the IFLA website and social channels to ensure broad inclusion and to allow other libraries to provide voluntary contributions. Therefore, this report also includes information about other countries beyond the piloted ones. While the information obtained from the piloted counties is generally more robust due to the targeted outreach efforts led by the coordinators, the additional information can serve as a basis for further investigation.

Cameroon

The library network in Cameroon consists of approximately 1,832 libraries of which 985 provide Internet access. Public and community libraries constitute 11% of that amount, with a predominant amount of school and academic libraries 72%.[1] A total of 39 libraries from Cameroon provided data for the LBC project. Many of them located in larger cities such as Yaoundé, Garoua and Ngaoundere, while others belong to rural areas located mainly in the southeastern region of the country.

F1. Share of surveyed libraries that are connected to the Internet



Basic Connectivity

In terms of connectivity, 44% of the libraries report lacking Internet access mainly due to high cost of service, electrical supply issues and infrastructure limitations overall.

More than half of the respondents mentioned that the lack of connectivity has greatly impacted their libraries' ability to provide services to users, while 11% noted that the impact for them was not that significant, most likely due to other more imminent priorities in the region. A common explanation for this is the country's low literacy rates in certain areas, which impacts the capacity of the library staff to provide any type of content (whether digital or not).

Value	Percent
Direct them to nearby libraries with Internet access	11.8%
Provide offline resources	29.4%
Unable to assist them	35.3%
We do not get any requests for online resources	23.5%

F2. Unconnected libraries answering the question "How do you manage users that require online resources or Internet-based services?

While some of the unconnected libraries are able to direct individuals who require digital resources to other libraries or places, 35% of the responding librarians reported being fully unable to assist them. This often presents a challenge for people who do not have other means to gain access to the information they need. When it comes to the libraries that do have Internet access, the most common type of connection was reported to be fiber optic 46%, followed by cable 27% and mobile data 9%.

Download Speed

It is important to note that the majority of libraries report average download speeds of 5-20 Mbps, and at least a quarter of them operate with 1 Mbps or less. This means that while they are connected to the Internet, their ability to use it effectively is often restricted by this limitation. In the same manner, many libraries struggle with the permanence of their access due to occasional interruptions.

Availability and Equipment

Although most libraries use desktop computers in their facilities, laptops are the second most used device, followed by tablets and occasionally smartphones. The quantity of the devices tends to be low with an average amount of 1-5 devices per library (41% of libraries), while only 12% of the surveyed libraries count with 20 devices or more. Despite the limitations, the digital catalogues of the connected libraries in Cameroon tend to have a good size, ranging from an average of 1000 to over 5000 resources, of which at least 22% are remotely accessible.

Training

The results also showed that that it is not common for libraries to provide training to their staff on how to operate devices and digital tools and resources. Similarly, only 15% of the respondents in Cameroon reported receiving digital skills/literacy training, with the most common types of staff trainings offered comprising the use of digital library resources and building capacity on basic computer skills. Two of the 39 libraries regularly offer advanced digital skills training for their staff, including but not limited to document digitization, data analysis and many others.
Only 9% of these libraries are able to offer digital skills development workshops for the library users due to capacity and funding limitations.

Summary

Overall, the librarians in Cameroon understand their challenges but also the potential of the library field in regard to the digital. Despite an issue of lack of funds and quality infrastructure in certain regions, they are moving forward and adopting new tools, expanding digital catalogues and experimenting with ICT skills development. Like many African countries, Cameroon has embarked on a project to accelerate digital transformation that intends to modernize infrastructure and inclusive access, an example of this is their World Bank-funded *Digital Transformation Acceleration Project (PATNUC)* aiming to improve access in rural areas and enhancing e-government and digital financial services, with a specific focus on boosting the agricultural sector.[2] This initiative is already beginning to positively impact the library sector, gradually improving connectivity and helping fill in on capacity gaps.
While detailed GIGA connectivity data on Cameroon is not yet available beyond the initial mapping of schools (approximately 3,600), recent national developments point to strong alignment with GIGA's objectives. In May 2025, UNICEF Cameroon and the telecommunications company IHS Towers in Cameroon entered into a partnership to advance the *'Connect My School Initiative',* that aims to provide digital learning opportunities to children and young people by modernizing infrastructure and organizing an education technology boot camp to increase digital awareness and foster innovation and problem-solving skills.[3]

Nigeria

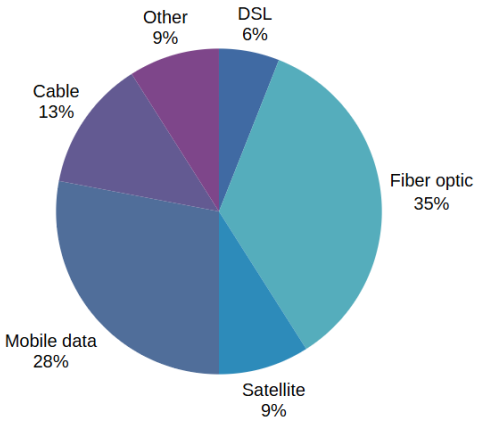
While Nigeria is a larger country than Cameroon, it has fewer libraries: 1,131 in total. Public and community libraries account for 15 and 2 percent of the total respectively, and while only 21 of those have been registered as facilities that have Internet access via the Library Map of the World[4], that amount is likely to have increased as the last records of this number were taken over a decade ago in 2015. A total of 83 Nigerian libraries participated in the LBC survey.

According to a report done by the Librarians' Registration Council of Nigeria (LRCN), published by the Federal Ministry of Communication Technology, 316 of these libraries are public and in general, most of these facilities lack the necessary infrastructure and devices to provide quality service delivery[5].

Basic Connectivity

The majority of the LBC surveyed libraries count with internet access (82%). Just as in the case of Cameroon, common limitations for unconnected libraries were the high cost of services and electrical supply issues. The biggest barrier according to Nigerian respondents was reported to be infrastructure issues, as some spaces are no longer suitable for the community or do not have an updated and sufficient level of resourcing.

Most of the unconnected libraries regularly fill in the connectivity gap by providing offline resources, but in this case, 21% of the libraries, find themselves in the need to direct users to other facilities that are sometimes hard to reach for them.

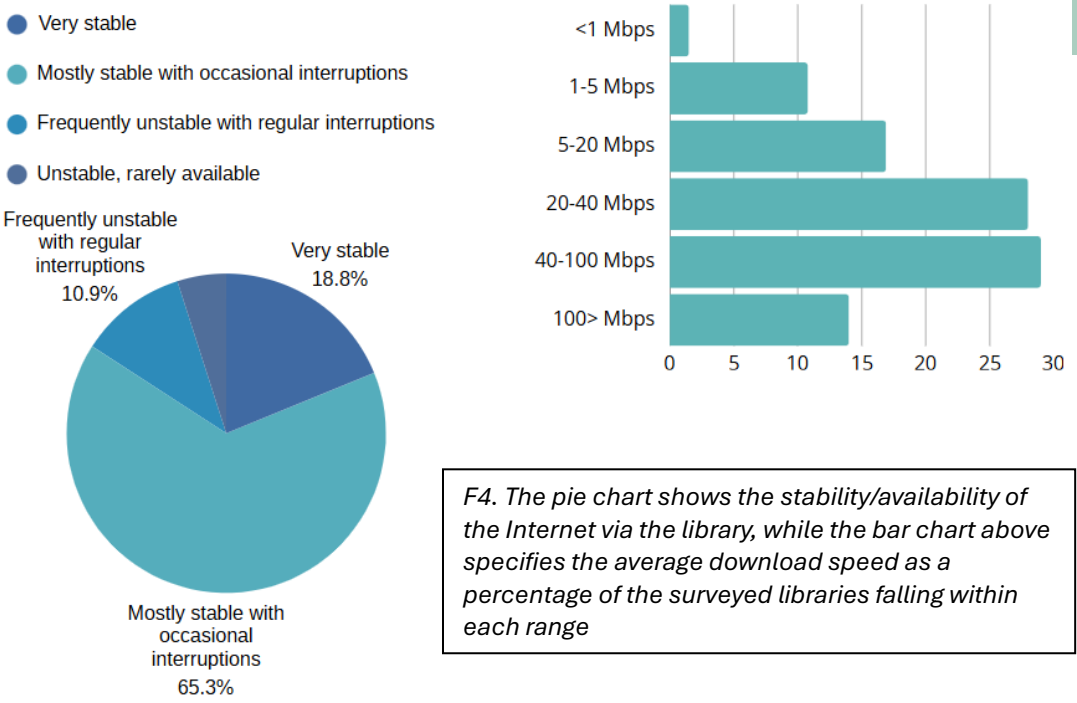


F3. Common types of connectivity – The use of mobile data stands out in Nigerian libraries as a reliable way to access the Internet in areas where mobile service is available

Among the libraries that have access to the Internet, the most common type of connectivity is fiber optic, followed by mobile data, DSL, cable, satellite and other types.

Download Speed

The average download speed for most of the connected libraries seems to be between 20 and 100 Mbps, with only 1.5% of librarians reporting less than 1 Mbps available. And while approximately 85% of the libraries count with stable and reliable access, some of them noted that the connectivity is not always available, which impacts their capacity to deliver to their communities.



F4. The pie chart shows the stability/availability of the Internet via the library, while the bar chart above specifies the average download speed as a percentage of the surveyed libraries falling within each range

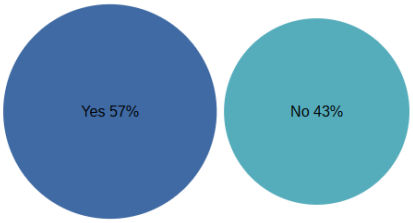
Availability and Equipment

On average, library staff in connected libraries reported that the Internet is always available throughout the day, while 32% of the respondents noted that it is only available 1-6 hours per day. On the other hand, 5% of the respondents reported that the Internet access at the library is only for library staff and not for users due to infrastructure constraints.
Likewise, most of the libraries use a separate network access for users and library staff, while only 19% have a shared one.

Another important observation is that 62% of the connected libraries seem to be equipped with over 20 computers or devices to access digital information, some of them counting with large amounts of equipment between 50 and 100 devices.
The average amount of daily library users is around 167, ranging from 10 visitors in the smallest library up to 1500 in the largest one.

Training

The results also showed that Nigerian libraries tend to provide training to library staff (76%). Most of this training is focused on using available digital resources, basic technology troubleshooting, use of library software such as Koha 2.0, peer to peer trainings on digital databases, data collection/management, open access publishing and digital literacy skills among others. At least 57% of the surveyed libraries report that they provide digital skills and/or literacy training to library users and community members.



We provide training on information retrieval skills, digital research tools, copyright information and other digital literacy skills

Use of Geospatial Technology Resources by ESRI, How to register digital footprint, Increasing research visibility. Student and lecturers. 1-3Hrs. Minimal to no funding.

We do peer to peer trainings with staff on navigating through online databases, search for materials from other educational websites, using zoom and or google meet and also how to conduct online trainings, how to use different referencing software's like Zotero and Mendeley.

F5. The percentages in the circles above represent the amount of libraries that offer digital skills and/or literacy training to library users. The short texts on the right illustrate certain types of trainings as described by some of the participants

Some of the ways in which these libraries build the capacity of their communities include the following: workshops and self-paced courses, in-house training provided by both staff and technical external people to complement the training, custom made 'Book a Librarian' appointments for one-on-one technology learning and repurposing library staff training for library users, amongst others.

Such initiatives have made a big difference in advancing the digital skills of people in the community. Funding however, remains a big issue for most of the libraries, a small amount of the respondents work in libraries funded by the municipality which has supported them with funds for these types of activities, while others have sought external funding for instance by requesting trainings from the service providers of the databases/platforms they use at the library, via small external grants and donations or through university funding (mainly available to academic libraries).

Summary

Nigerian libraries generally report strong connectivity rates, with many of them reporting above-average speeds. However, just as in the case of Cameroon insufficient and inconsistent funding continues to pose a significant barrier to improving not only their spaces but also their capacity building programs that tend to be already rich in content with the current available resources.

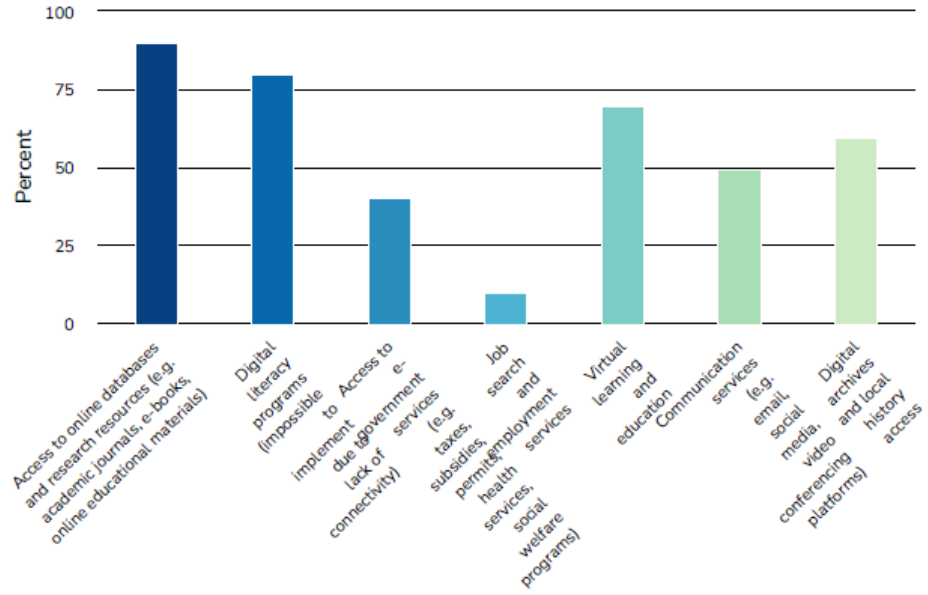
The GIGA map on Nigeria is not yet fully developed, however they have mapped the existence of 108,800 schools, of which 42.5% are located in areas with 4G cellular coverage and above, 53.9% in areas of 3G/2G coverage and at least 3.6% in zero coverage areas.
In September 2025, ITU launched an initiative to bring artificial intelligence and robotics training to students across Africa. The program combines hands-on AI and robotics training for young people in underserved communities, including in those countries where GIGA is working to help governments connect schools to the Internet.[6]

Zambia

At least 45 libraries are registered in Zambia, of which 12 have Internet access, although that amount is likely higher as this number is based on 2018 data. The library system in Zambia is decentralized, meaning that libraries belong to different ministries and there is not one single body that regulates or coordinates the provision of library services in the country[7]. However, in 2025 Zambia approved its first-ever National Library Policy, which aims to position libraries as central pillars of educational, social, and economic development[8]. This policy is expected to strengthen unified collaboration with a more structured framework and the projected modernization of the library system in the country is set to positively impact digital access in the coming years.

Basic Connectivity

A total of 17 Zambian libraries participated in the LBC survey, of which only 7 are connected to the Internet, as in the two previous countries, mainly due to high cost and infrastructure limitations. However, the library staff also signaled the lack of digital skills and certain prevailing policy and regulatory practices as common barriers that enable the former.



F6. Unconnected libraries answering the question 'Which of the following library services has been mostly affected by the lack of Internet access?

The lack of access impacts several areas, the largest one being the access to information that exists in digital databases as well as research resources. These gaps deepen existing inequalities, especially in low-income and rural areas.
At least 60% of the survey respondents address this gap by providing offline resources, while 20% prefer to direct individuals to nearby libraries with connectivity and the remaining 20% reported being completely unable to assist them.

Download Speed

Regarding the connected libraries, most of them reported having a download speed of 1-5 Mbps on average, which for example allows users to browse most websites and databases, stream low quality video and access e-government services, but makes it hard to support multiple users at once and almost impossible to join webinars and video calls or download large files and videos.

Availability and Equipment

The most common device available in Zambian libraries for users to connect to access digital information are desktop computers, however some of the surveyed library staff reported they have found themselves in the need to obtain tablets through donations and to occasionally use smartphones as some computers are outdated and unable to run certain software.

Training

Due to these limitations it is equally hard for these libraries to provide digital related training to their staff and users. Despite these obstacles, 29% of the libraries reported providing training to

library staff including technical and digital skills training, and half of them reported providing similar training to library users.

An important observation is that these trainings are framed primarily as digital literacy initiatives, however the main objective of many is to provide essential computer skills to enable community members to access a wider range of requested resources which are often related to vocational trainings, online courses on artisanal skills like sewing, basket weaving and clothes making, entrepreneurial courses, solar power installation resources and many others that people can put to use immediately to earn an income.

Summary

Zambian libraries face similar constraints as the previous countries, with a number of operating libraries that have a limited bandwidth and outdated equipment. Regardless of these challenges, libraries and in particular the unconnected ones, have managed to find ways to serve their users by offering available offline resources and providing diverse trainings.

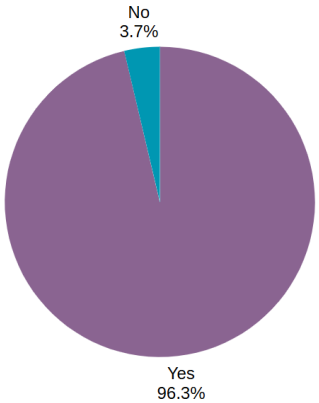
The schools mapped by GIGA in Zambia also offer interesting insights to compare as they have mapped an average of 11,800 schools of which 67 offer real-time connectivity data. The average download speed of these 67 schools is 15.84 Mbps. In January 2026, the GIGA Government Exchange Programme, convened at the GIGA Connectivity Centre in Geneva, bringing together representatives from Ministries of Education, ICT and Finance, alongside regulatory authorities. A Zambian delegation joined this discussion to reflect on how to further expand Internet connectivity across schools in the country.[9]

Namibia

According to 2022 Library Map of the World Data, there are 231 libraries in Namibia, of which 65 are public and 78 of them have Internet access[10]. There are 27 Namibian libraries that participated in the LBC survey.

Basic Connectivity

All but one of the participant libraries offer Internet access. The most common alternatives for connectivity are fiber optic and DSL, and only few libraries have satellite or cable access .



F7. Amount of surveyed libraries that are connected to the Internet

For at least half of the libraries, the connectivity tends to be either very stable or mostly stable with occasional interruptions.

Download Speed

Most libraries have an average download speed of 20-100 Mbps. The amount of users that frequent these libraries ranges from 20 to 300 a day for the larger ones.

Availability and Equipment

Desktop computers and tablets are common devices the libraries use to access the Internet, and most libraries tend to have between 1-5 devices available for users while at least 7 libraries reported having more than 20.

Training

While it is relatively uncommon for Namibian libraries to provide technical training to their staff on how to operate devices and digital tools as well as other types of digital training (65% of people do not receive it); it is common to provide digital skills and literacy trainings to library users and community members (60% of libraries). An explanation for this beyond lack of funding and capacity, is that the staff tends to require more advanced skills training that needs an expertise that is sometimes hard to reach within certain regions; as some librarians noted via the survey, the types of workshops that are required by library users tend to be more focused on basic ICT skills development and literacy mainly for children and young people.

Summary

In general, this research suggests that Namibian libraries are making steady progress, particularly when it comes to connectivity. As described, many of them are already online and enjoy relatively good access. What they need now is external support to ensure this access becomes truly meaningful for their communities by strengthening library infrastructure, expanding the availability of their resources and devices and building staff and community capacities in parallel.

In October 2025, the Communications Regulatory Authority of Namibia (CRAN) donated computer equipment and free digital services to several libraries to ensure the inclusion of entire communities in the digital era.[11] The GIGA map also provides some information on Namibian schools, of which 2,000 have been mapped and 223 of those provide real-time connectivity data with an average of 4.72 Mbps.[12] In 2025, the Namibian government pledged N145 million to expand rural connectivity, a move that will likely benefit both schools and libraries in underserved areas.[13]

Kenya

With one of the largest library networks in Africa, Kenya counts with 49,172 libraries; a big majority of that number (over 90%) are school libraries, while 67 are public and 25 are community libraries. Of that amount, at least 197 are believed to have Internet access.[14]

In total 27 Kenyan libraries participated in the LBC survey. Many of them located in Nairobi but also in Kericho, Machakos, Uasin Gishu, Naivasha, Lodwar and other rural regions.
The number of staff members working in these libraries varies between 2 and 120 for the largest facility.

Basic Connectivity

Most of these libraries have Internet access, with only 11% not having it. The unconnected libraries noted that the lack of access is greatly impacting their ability to provide services to users because while many of those users need the Internet for research, to access digital resources, many of them use libraries as a lifeline to seek for jobs and for entrepreneurial activities.

Download Speed

However, the connectivity speed appears to be sufficient in the connected libraries, ranging from 40 to 100 Mbps, and the permanence and stability of the connection is generally reliable.

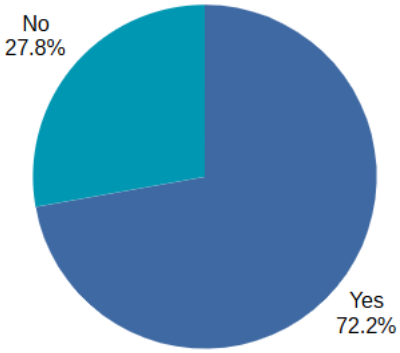
Value	Percent
Very stable	16.7%
Mostly stable with occasional interruptions	72.2%
Frequently unstable with regular interruptions	5.6%
Unstable, rarely available	5.6%

F8. Responses to the question "How stable is the Internet connection?" from those libraries with connectivity – Beyond the speed of the connectivity this question is asked to probe for other possible issues

Availability and Equipment

While 83% of libraries claimed that the Internet was available all day at all times, the rest of the libraries mentioned it is only available a couple hours a week due to power cuts and lack of funds. It is common for libraries to have between 6 and 20 desktop computers or other devices, while at least 5 libraries claimed to have more than that amount.

When asked to comment on the current state of digital infrastructure and devices in the library, most librarians indicated that it was sufficient during the days when they do not have many visitors or requests, and of course their capacity to assist community members reduces considerably when they have a higher demand.



F9. Most of the surveyed libraries provide technical training for their staff on how to operate devices and other digital tools of daily use

Training

Digital-related capacity building initiatives are present in many libraries, and the survey shows that it is common for Kenyan libraries to offer training to their employees, both technical and wider digital skills and literacy training. They are also equally able to offer digital skills training to community members with at least 72% of the libraries offering them for free to library users.

The digital collections of the surveyed libraries tend to be large with over half of the libraries indicating they have more than 5000 digital resources that are also remotely accessible for free for library registered users.

> The Programs are done on need basis. This was initiated by the fact that the library has more access to digital resources than physical books. However, we do not have a structured program for the digital training programs.

F10. Quote from a respondent - Some of the surveyed libraries prefer to provide only needs-based trainings to their users.

When asked to elaborate on the details of these trainings, many of them mentioned it is a priority for them to offer trainings to teach users how to access electronic resources, while other common trainings offered are on cybersecurity or for youth. An important observation is that many libraries seem to develop needs-based workshops only. These are libraries that tend to ask feedback from their visitors on what their most pressing needs are (beyond basic ICT skills), then they develop trainings based on that. The ones who take this approach have reported that it works really well.

Summary

In October 2024, the Kenyan government launched the UN-led initiative Digital Platforms Kenya (DigiKen). This initiative is accompanied by investment in Digital Innovation Hubs (DIHs) for 11 counties across the country.[15] While libraries have had only occasional participation in this initiative, this sets a strong precedent as the government recognizes the need to have and support innovation hubs as vital engines to Kenya's digital growth.

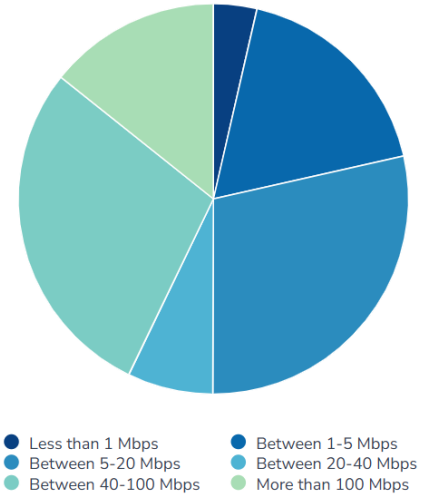
Looking at the GIGA map reveals a similar pattern on school connectivity as the Kenyan school network is as vast as the library one, with an average of 29,700 schools mapped. Of these, at least 364 are connected, and 73 are currently sharing real-time connectivity data, with average download speed of 9.76 Mbps noting a difference between the rural and urban areas.[16]
Kenya is one of the countries were GIGA has done extensive work integrating hard and soft infrastructure and engaging in strategic partnerships to scale up school connectivity.
For instance, entering into long-term agreements with private Internet service providers and collaborating with Kenya's ICT Authorities showcasing the benefits of public-private partnerships in this context.[17]

Lebanon

The Lebanese Library Association has reported the existence of approximately 600 libraries in the country.[18] Of these, 70 are estimated to be public and community libraries and at least 60% are believed to have Internet access.[19] A total amount of 30 Lebanese libraries took part in the LBC survey. A third of them in Beirut, but also many others located in the northern and southern regions of the country such as Akkar, Koura, Batroun and Rashaya.

Basic Connectivity

While all of the surveyed libraries reported having Internet access, and most of them reported that the connectivity is mostly stable with occasional interruptions, their ability to serve library users is deeply affected by the power outages and in the case of certain libraries, due to damaged infrastructure caused by previous conflicts.



F11. Average download speed of the participant libraries

Download Speed

The libraries located in urban areas (29%) reported an average download speed between 40-100 Mbps, while 28% of them count with 5-20 Mbps, and the rest have less. Only one library reported having less than 1 Mbps.

Availability and Equipment

Many libraries count with 20 or more computers and/or tablets, which is a good number, however the facilities tend to be big, especially in urban areas, so the provision of devices is not always enough for the number of daily users that tend to visit the libraries, ranging between 6 and 1,500 on average.

Training

Half of the libraries offer both technical and digital literacy training to their employees, while only 30% offer it to community members. The reasons given for this include a lack of funding and a lack of capacity from staff members. Some libraries reported sometimes having the resources for trainings, but library staff struggle to fit these types of activities in their already full schedules.

> Public libraries in Lebanon are trying to emerge after several crisis in the country. They weren't considered as priorities for the authorities. But with a lot of will they survived. We are looking forward to work on new programs to enhance our services.

> Our volunteers are always trained by older coordinators who worked with us on basic digital literacy.

F.12 Excerpts from final comments provided via the survey

A detail that stands out is that some of the Lebanese libraries seem to rely on a roster of volunteers, which is a practice that has extended across some regions. This has brought considerable help to implement more trainings and programs and has helped engage more community members. Also, just as in the case of Kenya, some libraries in Lebanon provide needs-based training and workshops to their communities to ensure best use of their time and resources.

Summary

Many libraries made a reference to the several crises and attacks that have affected them and that continue to threaten the development of the library network in the country.
Lebanese libraries drew attention to this issue and called for greater opportunities to rebuild the sector, especially in regard of the ongoing digital transformation. An example of these types of initiatives is the *Youth Empowerment in South Lebanon Project* that was launched in 2025, and is funded by UNIFIL and implemented by UNICEF and UNESCO. This project supports youth in conflict-affected areas, with a big priority on strengthening digital skills amongst other things[20].
Some of the project's activities took place via library spaces as these represent safe free learning spaces for the local communities.
Currently, the GIGA map has no information available on Lebanon.

Chile

The case of Chile is unique as the information described below was provided directly by Chile's National System of Public Libraries (SNBP) rather than collected via the LBC survey. The SNBP conducted a similar and comprehensive survey over the same period as this research was being conducted.
Beyond enhancing the study's regional diversity, Chile was included as the dataset on which the research is based is recent (2024), nationally representative and focused mainly on the digital dimension, making it very relevant to the research objectives of the LBC.
Although IFLA engaged directly with the SNBP to request access to this material, this study is also publicly accessible through the website of the foundation leading the study *Fundación Digital*, under the *name "Transformación Digital en las Bibliotecas Públicas en Chile: Hacia un sistema de bibliotecas públicas del siglo XXI"* (*Digital Transformation in Chilean Public Libraries: Toward a Public Library System for the 21st Century*). It was financed by Chile's National Fund for the Promotion of Books and Reading.
The study was done with the support of Entel and in collaboration with UNESCO, the Regional Center for the Promotion of Books in Latin America and the Caribbean (CERLALC), the National Service for Cultural Heritage (SERPAT) and the Ministry of Cultures, Arts and Heritage.

Chile is estimated to have 10,638 libraries of which 98% have Internet access.[21]
The survey for this study was answered by: 1) Regional libraries: Located in the regions of Antofagasta, Atacama, Coquimbo, Valparaíso, Metropolitana, Los Lagos and Aysén. While these are only seven, they are considered to be powerful cultural centres in their respective regions as well as a contact point for other libraries in those areas.
2) Branch/Public libraries: At the community level, Chile has a total of 449 active public branch libraries distributed throughout the country. The survey had a response rate of 75.7%, so 342 of the 449 branch libraries currently in operation.[22]

The main difference between these two is that the regional libraries, as mentioned above are big centres but also that these depend directly from the Ministry of Culture, Arts and Patrimony. On the other hand, the branch libraries (also known as municipal or public libraries) are managed by each of the municipalities with support from the SNBP.

Another reason why this study is relevant is because it goes beyond connectivity parameters alone, and evaluates if these libraries have developed their own digital transformation strategies.

Regional libraries

The study found that 6 of the 7 libraries have undergone digital transformation processes in recent years, and 57% has trained their staff to implement digital technologies.

The amount of devices available in these libraries varies between 13 to 163. Four of these libraries count with fibre optic connectivity and the rest have it via DSL.

All of the libraries provide digital skills development courses to their staff and communities. Another important aspect of the study was to evaluate the cybersecurity measures of these facilities and they found that six of these have antivirus software and firewalls, five of them prevent the use of unlicensed software as an institutional policy to control the malicious use of public computers, four keep their equipment software constantly updated, and only two periodically back up their data in the cloud and have robust password policies.

Four of these libraries reported having innovated over the last five years, which included plans to digitize more heritage collections, a web consultation among users for the acquisition of new titles, the creation of digital stories and podcasts on YouTube, and the use of artificial intelligence to support the dissemination of their services, among other initiatives. In two cases, the innovation was carried out in collaboration with other organizations.

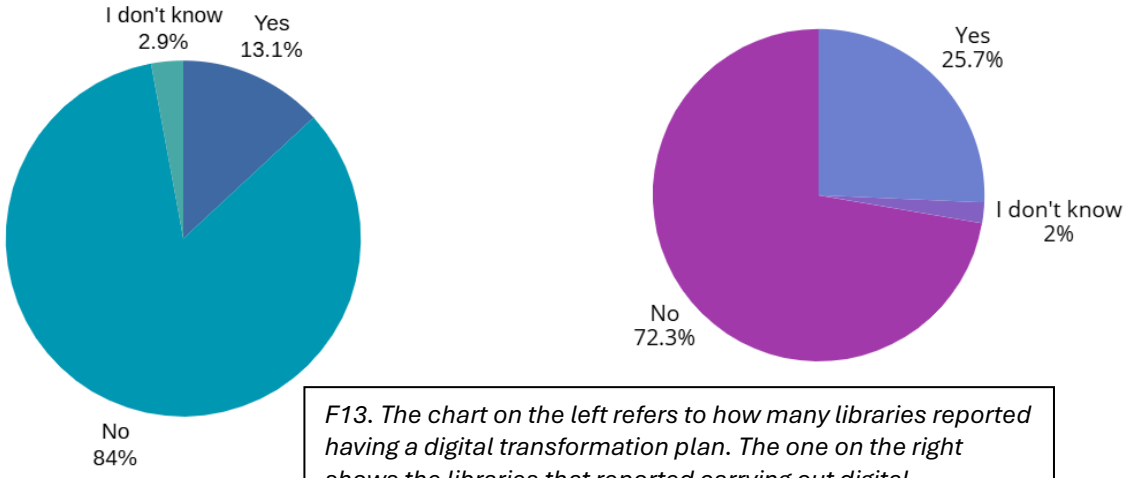
On the other hand, the main difficulties faced by these libraries are not so different from the ones obtained via the LBC. Four libraries mentioned the lack of financial resources, two mentioned the lack of staff, one mentioned the lack of up-to-date technological equipment, and one mentioned the lack of clarity in the roles and functions of the various digital transformation programs and policies currently in place for government, heritage, and libraries.

Branch/Public libraries

There is considerable variability in terms of staffing levels among branch libraries. The range is from 1 to 30 employees. Of the total number of libraries, 32.1% have only one employee, and 56.6% have up to two employees. These numbers are important as they show that the lack of staff is also one of the barriers for the digitalization of libraries and for the innovation of current services.

In terms of connectivity, 95% of them count with Internet access, but only 91% offer public Wi-Fi to library users. The most common types of connectivity are fiber optic 51%, DSL 13%, and17% by satellite connection, which seems to be the most viable option in the most remote areas.
The stability of the connection is also a challenge, given that only 46% of libraries report no interruptions, this also comes accompanied by power cut issues reported by at least 13% of the libraries.

In addition to that, 54.2% of libraries have between 5 and 7 computers. However 51.9% of them operate with computers that are over 5 years old and, 21.9% have never upgraded their equipment. Only 1.7% of libraries have upgraded their computers in the last year and 3.2% in the last two years.



F13. The chart on the left refers to how many libraries reported having a digital transformation plan. The one on the right shows the libraries that reported carrying out digital transformation processes in the library (with or without a plan)

The widespread absence of strategic planning for digital transformation emerged as one of the most significant findings of the study, as 84% of branch libraries do not have a digital transformation plan. This situation is particularly relevant when considered in the broader context of technology adoption documented in the study. The contrast between the absence of strategic planning and the effective adoption of digital technologies suggests a fragmented digital transformation process.

Training practices in branch libraries reveal a significant disparity in the development of competencies and skills within the library system. The data show that while 46.4% of libraries have implemented training programs, 52.2% have not developed such initiatives, highlighting a structural challenge in strengthening institutional capacities.

The data also revealed that training courses focus predominantly on skills such as basic digital literacy and specific library knowledge. This is followed by training in the ALEPH system and office software management. This distribution suggests an institutional approach aimed at ensuring a basic level of digital skills among library staff. However, the analysis shows gaps in the development of advanced digital skills, particularly those that are needed to drive effective digital transformation. Training in areas such as digital content creation accounts for only 1.7%, while training in social media management represents 0.9%. There is also a lack of attention given to emerging skills such as cybersecurity (0.6%) and artificial intelligence (0.3%), tools that are increasingly relevant in the context of library modernization in particular in the digitization scenario.

**Please note that this is only a summary of the study based on the gathered information that aligns closely with the LBC framework. For further information we recommend consulting the full report via the Fundación Digital website.*

Other regions and participant libraries

As mentioned via the report introduction, beyond the more detailed data gathering that took place in the pilot countries, the survey was also open to any libraries who were not part of the LBC project but that decided to participate willingly.

Starting with the case of **South Africa**, as the only country that was not originally part of the LBC where libraries were just as participative as the ones who did take part in the project, amounting to a total of 23 library respondents. Giving us enough information to draw some conclusions on the overall state of public and community libraries' digital accessibility and services.

All the South African libraries that answered the survey have Internet access, mainly via fiber optic, while almost a quarter of them use mobile data as a reliable way to stay connected. The largest single share of respondents (42%) had an average download speed of 40-100 Mbps, followed by a 26% of them having a connection of over 100 Mbps. Similarly, a big majority claimed the connection is reliable and stable, with only 3 libraries mention they suffer from regular interruptions and occasional power cuts.

The amount of existent devices varies per library but only 30% of them reported having over 20 devices available for public use. Most of the participant libraries have relatively large digital collections, with 86% of libraries offer remote access to registered users.
In terms of technical and other digital literacy training offered to library staff, at least 53% of libraries claimed having it, with 85% of these libraries also offering digital skills and literacy training to their communities. A common focus for these training initiatives are the following themes: basic ICT skills, anti-plagiarism and copyright workshops, digital/AI literacy skills for youth and senior citizens and searching and use of digital library resources.

Other countries from which we received 5 or more submissions from different libraries include: **Sudan** (9), **Zimbabwe** (6) and **Uganda** (5).

While these numbers are not enough for us to draw conclusions on the connectivity and digital tendencies in the public and community libraries in those countries, the table below shares some insights on the information that was provided by them.

Country	Notes
Sudan	▪ 78% of surveyed libraries have Internet access ▪ Average download speed between 1-5 Mbps ▪ Regular connectivity interruptions ▪ 85% of them provide digital related training for staff and 71% to community members
Zimbabwe	▪ All the surveyed libraries have Internet access ▪ 60% of them have an average download speed of 100 Mbps or more. The rest count with only 1-5 Mbps ▪ Connectivity is mostly stable with occasional interruptions

	▪ 80% of them provide digital related training for staff as well as for community members
Uganda	▪ All the surveyed libraries have Internet access ▪ 75% of them have an average download speed of 100Mbps or more, 25% have 20-40 Mbps on average ▪ Connectivity is mostly stable with occasional interruptions ▪ 75% of them provide digital related training for staff as well as for community members

F14. The table summarizes some insights on these specific countries. However, results are not representative enough to draw further conclusions.

When analyzing the input all the libraries that were not part of the LBC (including the above), the graphs showed that most of the respondent libraries are connected to the Internet, at least half of them via fiber optic. The average Internet speed varies but only 30% of libraries have access to over 100 Mbps, and at least 6.6% report less than 1 Mbps, which makes their connectivity relatively symbolic.

Conclusion

Overall, the findings suggest that, while regional contexts shape the urgency of certain challenges, many obstacles remain consistent across countries. Some examples of these include limited access to funding, outdated infrastructure, insufficient renewal of devices and limited digital collections that continue to constrain the ability of public libraries to fully support their communities.

Comparing the LBC findings with GIGA data also highlights a strong opportunity for closer collaboration between school and library networks when it comes to Internet access. A key pattern identified via this research is the fact that many schools and libraries are technically connected, yet their connectivity is often limited by low speeds, unstable service and other constrains that make access insufficient for daily use. If the goal of GIGA is to offer a snapshot of both needs and possibilities around the connectivity of institutions engaged in education, the data collected here demonstrates the feasibility of incorporating library data into the GIGA portal.

While the first paragraph of this conclusion outlines some of the challenges that libraries face in adapting to the digital transformation, the GIGA data also points to practices within the school network that could be valuable for libraries to adopt. These include engaging in public-private partnerships, whether through subsidized programmes, access to software and modernized equipment by private companies or others. Another potentially promising option would be to establish relationships with other local organizations and ICT Ministries to explore potential access to funding such as the Universal Service Access Funds (USAFs)[23].

The qualitative feedback gathered from library staff also underscores the essential role libraries play in reaching populations that are often underserved or excluded. Despite serving a wide

range of users, many libraries emphasized that they routinely support farmers and other community members for the development of entrepreneurial activities via digital access. This suggests that some libraries may also be local enablers of economic activity within certain communities where other forms of support are limited.

The data collection process itself also revealed important realities. Some unconnected libraries could only be surveyed through in-person visits or by using offline tools. While some of these libraries are in remote areas with limited coverage, some others are not and it is the lack of funds and other systemic barriers that stops them from being connected.

Similarly, some libraries in the participant countries have or are currently affected by conflict, which makes the situation more complex as many library buildings have been damaged or destroyed. Even where Internet access exists, the physical deterioration of facilities often makes them barely functional. These are missed opportunities that deserve urgent attention as they directly affect the ability of these communities to access education, services, and other types of support.

Chile's contribution to the study also points to what future phases of the LBC may look like, looking beyond connectivity, services and infrastructure and taking a more strategic view on how to enhance digital transformation in public and community libraries. As the LBC evolves, there is clear value in expanding beyond the current scope to explore more strategic dimensions: the presence of digitalization plans, the capacity to access grants and funding, and the strength of digital-related partnerships with organizations and local/national governments to advance this vision.

While the challenges are significant, the commitment of libraries to serve their communities remains solid. Strengthening their digital capacity is not only a matter of public infrastructure, it is also a long-term investment so libraries can continue to act as vital anchor institutions in an increasingly digital world.

IFLA expresses its gratitude to all participating libraries for their valuable contributions and willingness to share information. Following the publication of the report, IFLA will reach out to participants to seek their consent to publish more specific data via the LBC website. This is in line with our goal of integrating these insights with data from the Library Map of the World.

We also acknowledge the important role played by our three regional coordinators and appreciate their leadership and commitment throughout this process: Alim Garga, President of the Professional Association for Library and Information Professionals in Cameroon (ABADCAM) and Director of the Cameroon National Assembly Library, Dr. Farah Sbeity, Academic, Library & Information Consultant and Damilare Oyedele, Co-Founder and Chief Executive of Library Aid Africa.

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