# Development and Access to Information





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**The Technology & Social Change Group** (**TASCHA**) at the University of Washington Information School explores the design, use, and effects of information and communication technologies in communities facing social and economic challenges. With experience in over 50 countries, TASCHA brings together a multidisciplinary network of researchers, practitioners, and policy experts to advance knowledge, create public resources, and improve policy and program design.

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## **Chapter 2:**

## Libraries as Agents for Sustainable Development

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## 2.1 Introduction

In August 2014, the international library community issued the Lyon Declaration on Access to Information and Development to advocate for the inclusion of access to information in the UN Sustainable Development Goals:

We call upon the Member States of the United Nations to make an international commitment to use the post-2015 development agenda to ensure that everyone has access to, and is able to understand, use and share the information that is necessary to promote sustainable development and democratic societies.<sup>1</sup>

As the declaration demonstrates, librarians are aware of their broader public mission and their potential to deliver progress on development goals. Libraries are, by definition, institutions dedicated to shaping and improving access to information in the communities they serve. They draw upon their understanding of the local environment and their relationships with community leaders, local partners, library users, and non-users to develop a picture of community needs and provide the types of services that will best support their users.

On a technical level, libraries are part of the physical infrastructure necessary to ensure everyone can obtain the kinds of information they need. On a human level, libraries work to ensure that their communities have the ability to find, use, create, and share information to their greatest benefit by providing resources, opportunities for the cultivation of expertise, and social spaces for people to discuss, test, and apply ideas. For instance, many libraries provide access to government services (online or offline), act as laboratories for civic innovation, and assist patrons who are learning to use new technologies. This work has impacts across the entire sustainable development agenda, including maternal and neonatal health, entrepreneurship and business development, and agricultural development.

This chapter examines the role of libraries in contributing to the Sustainable Development Goals. It reviews the various ways libraries advance access to information, as defined in the introduction of this report, and how libraries tackle some of the access challenges identified in Chapter 1. The chapter begins with a look at the physical and digital infrastructure libraries provide, a necessary foundation for people to access both analog and digital content and services. It then turns to a discussion of the ways in which libraries build capabilities, including building the informational skills needed for meaningful application in diverse areas of life, such as education, health, and jobs. Next, it considers the role of libraries in promoting civic engagement by facilitating dialogue and other activities that strengthen civic life. Finally, it covers the library's role in building community partnerships. In the process, the chapter highlights exemplar public library programs and services around the world.2

The focus of this chapter is public libraries, as institutions that are embedded in communities and provide free access to information to all members of society. While the data and examples here are largely drawn from public libraries, future reports may showcase other types of libraries that provide valuable services to their target audiences – including libraries in schools, universities, government agencies, and businesses.

Of course, libraries around the world have very different capacities, both within and across countries. Recalling the DA2I framework, their operating environments differ considerably in regard to existing technical and communications infrastructure, legal and policy structures, and socioeconomic conditions. While some may be well-resourced, many others are understaffed, underfunded, and under-championed by public officials. Some have earned a reputation for innovation and providing cutting-edge programs, while others remain focused on continued delivery of traditional, well-honed services. Yet even in the face capacity constraints, libraries are accomplishing important work in their communities, and their efforts and achievements deserve recognition and repetition.

## 2.2 A global infrastructure

Libraries exist in nearly every country. Although reliable data is difficult to obtain, there are an estimated 1.4 million libraries across more than 200 countries. The majority of these libraries have been established in primary and secondary schools. Public libraries, which serve a broader section of society, number around 300,000, with approximately two-thirds located in less-developed countries. Another 100,000 or so libraries worldwide are composed of academic libraries, national libraries, and special libraries (Online Computer Library Center, 2016).

The value of this infrastructure is not to be underestimated, particularly when 4 billion people remain unconnected to the internet. One study that examined publicly available computers in five less-developed countries found that nearly half (48 percent) of people who used computers in public libraries, internet cafes, or other community internet points reported that the computer and internet connectivity being offered was their only means of access (Sey et al., 2013).

Yet this connectivity infrastructure does more than serve people whose households are unconnected. Studies have shown that countries with higher proportions of the population using computers at public libraries also have higher rates of home internet access. For instance, in a survey of 17 European Union countries, the proportion of people who had used a computer in the public library in Finland and Denmark (both 19 percent of the population) was more than double that of the next highest countries (Lithuania and Latvia, both at 9 percent), while Finland and Denmark also enjoy some of the highest home internet access rates in Europe (84 percent and 90 percent, respectively) (Quick et.al, 2013). In the above mentioned study surveying people in five less-developed and emerging countries, the figures were equally revealing. A substantial number of surveyed users of public libraries and other community

internet points have internet at home – and in many cases well in excess of their country's average rate of home internet access. In Brazil, for example, 41 percent of people who used a public internet point also had internet access at home, compared to a national average for home internet access of 24 percent at the time of the study (2009). Similar patterns were seen in the Philippines, Ghana, and Bangladesh (Sey et al., 2013).

When speaking of public libraries as a type of information access infrastructure, it is important to remember that libraries are more than the buildings they occupy. First, the geographical footprint of a public library is often much larger than the physical footprint of the building. For instance, many public libraries have mobile libraries – buses and other vehicles that penetrate into rural and remote communities, offering books, services, and in some cases, internet access. In Namibia, a country with one of the world's lowest rates of population density, mobile libraries travel hundreds of kilometers from the country's regional libraries to loan out books, provide Wi-Fi access, and give visitors an opportunity to use a computer and printer.

Second, a library's footprint can also extend beyond the walls of the library through its digital services. Libraries of all types subscribe to digital resources – including e-books, specialized databases, and e-learning tools – that users can access from their home, school, work, or other places outside the library.

Third, a library can also be conceived of as a social space, where community members meet, participate in programs together, and learn from each other. From children's story times to cultural events, libraries offer a wide variety of programs that leverage their physical spaces as part of a community's social infrastructure.

## Box 2.1: Libraries in Indonesia expanding access to information infrastructure

PerpuSeru is a public library program that has brought the benefits of information to Indonesia, a country where in 2015 only 22 percent of the population had accessed the internet (ITU, 2015). A partnership of the Coca-Cola Foundation of Indonesia, the National Library of Indonesia, the Ministry of Home Affairs, Telkom, Microsoft, and local governments across the country, the program launched in 2011 in a pilot phase by installing computers and internet and providing training to library staff in a small number of public libraries. After expanding the program to several hundred libraries since that time, it now reaches hundreds of thousands of Indonesians with a goal of reaching 1,000 public libraries by 2025. It is estimated that by reaching that goal, public libraries will provide access to information to 20 million Indonesians who had lacked it.

Source: Global Libraries Program (Bill & Melinda Gates Foundation), personal communication, March 22, 2017.

## 2.3 Advancing inclusive sustainable development

Physical access to the internet, books, and other information resources alone will not drive social and economic inclusion. Citizens must be able to engage with available resources, make full use of the information they encounter, learn from each other, and generate new ideas and solutions. As described in the Lyon Declaration, full access to information supports sustainable development by enabling people to:

- Exercise their civil, political, economic, social, and cultural rights.
- Be economically active, productive, and innovative.
- Learn and apply new skills.
- Enrich cultural identity and expression.
- Take part in decision-making and participate in an active and engaged civil society.
- Create community-based solutions to development challenges.
- Ensure accountability, transparency, good governance, participation, and empowerment.
- Measure progress on public and private commitments on sustainable development.

The remainder of this chapter focuses on three of the unique ways libraries contribute toward achieving the targets set forth in the SDGs while also delivering effective access to information. These include:

- A. Libraries cultivating capabilities by developing information and digital literacy strategies and skills, allowing individuals to understand information in its context and apply and reuse it effectively;
- Libraries promoting civic engagement by facilitating dialogue among community members to strengthen civic life and engagement; and
- C. Libraries partnering for community development by building partnerships to aid in leveraging community assets for local development.

#### Libraries cultivating capabilities

Libraries have long played a role as enablers in individuals' paths for lifelong learning, while also fostering skill development in areas such as basic literacy and critical thinking. Yet today's learners must acquire a broader skillset to navigate the information ecosystem, including a growing list of overlapping literacies: media and information literacy, data literacy, digital literacy, and web literacy, among others. Functional gaps in any of these areas can hinder lifelong learning, skill development, and the growth of other

## Box 2.2: Why libraries when a mobile phone brings the internet to your pocket?

The past several years have witnessed an explosion in mobile phone use, and today sales of smartphones eclipse those of both personal computers and feature phones in some countries. Even in Africa, smartphone sales have steadily increased, reaching an average 30 percent market penetration in the continent, with variations across countries. Why then, when the capacity exists to access the internet in your pocket, are public libraries still needed? Research shows numerous reasons. Cost, for one, is a barrier since data plans are still prohibitively expensive for many people, and serve to curtail internet use. Another reason is activity type. A study in South Africa found that "overall, mobile phones and public access computers are no substitutes for one another: each corresponds to distinct activities and information behaviors, leading to different social, academic, or professional practices." (Walton & Donner, 2012). Researching and writing homework assignments, for instance, offers a particularly obvious example, but the study also noted many other activities where the smartphone owners preferred to use a computer. It is no surprise, therefore, that many users of computers at public libraries also have smartphones.

At the same time, more and more people are having their first internet experience via a smartphone. Nearly the entire population of Myanmar is a prime example of this, going from .2 percent mobile phone penetration in 2010 to more than 75 percent in 2015, according to statistics from the ITU (2016). Recognizing this situation, the Myanmar Book Aid & Preservation Foundation, in partnership with the Technology & Social Change Group at the University of Washington, developed a mobile information literacy curriculum that more than 100 public libraries are now delivering across the country. The training helps people learn ICT skills, build critical thinking skills, participate and engage online, and discover resources outside of Facebook, the dominant destination for most Burmese (Clark, 2015).

capabilities, limiting the range of opportunities available to an individual and the broader community.

The following three examples highlight various ways libraries have developed people's skills while working toward the types of outcomes represented in the SDGs: health and well-being, entrepreneurship, and educational attainment.

- In Burkina Faso, the Girls' Mobile Health Clubs found in four village libraries expand access to quality health information while also providing support to the participants to increase their information literacy and technology skills. While library staff provide training in information literacy skills, local health clinics ensure that the health information is current and relevant, and the youth build shared information resources for their communities with the assistance of library staff ("Four Rural Libraries Create 'Mobile Health Clubs' for Teenage Girls," n.d.).
- In Indonesia, public libraries have offered microentrepreneurship training to more than 84,000 women and youth over the past six years. Training participants have researched a variety of ideas for small or household-based businesses, including starting or expanding initiatives related to food processing, growing markets for traditional fabric crafts, and improving methods for crop and livestock production (Global Libraries Program [Bill & Melinda Gates Foundation], personal communication, March 22, 2017).
- In Ghana, the Volta Regional Library began using a mobile library in 2012 to improve educational opportunities for students attending schools with limited resources. The program provides hands-on computer classes, addressing a subject area in which rural schools have had high failure rates in national exams. An evaluation showed that this intervention contributed to an increase of almost

## Box 2.3. Libraries supporting gender equality

Many countries around the world are noticing a similar phenomenon: Women and girls are less likely to have access to ICTs than their male counterparts, and when they do have access, they use the internet less often than men. Women are also underrepresented in the ICT professions, a growing sector that is projected to provide many jobs and good salaries. This divide also extends to many of the public places people go to access computers and the internet, with men generally using these spaces in greater proportions than women (Sey & Fellows, 2009). The digital divide between women and men is troubling not only because it reveals that many women lack basic access to information, but also because this divide exacerbates existing socioeconomic inequities, such as lower incomes and higher unemployment for women globally.

One promising exception is public libraries, where studies indicate there may be more of a gender balance, in part because libraries are seen as more welcoming to women and girls than internet cafes, and in part because many libraries provide targeted programming. In Chile, for instance, it was found that 47 percent of public library users were female, compared to only 28 percent for internet cafes (Sey et al., 2013). In Indonesia, women make up nearly two-thirds of the users at public libraries in the PerpuSeru program, while constituting a minority of internet users nationally (Global Libraries Program [Bill & Melinda Gates Foundation], personal correspondence, March 22, 2017).

The potential for positive impact is especially high for women and girls who participate in library programs designed to strengthen their digital literacy skills while supporting their livelihoods. Of the many examples available, two are highlighted below (Beyond Access, 2012).

In Myanmar, public libraries are addressing the gender gap with the TechAge Girls program. A partnership between IREX, Myanmar Book Aid and Preservation Foundation, Ooredoo, and the Ministry of Information, the program aims to develop leadership skills while providing technology training, and requires each participant to lead a community development project (Reich, 2017).

In Uganda, the National Library's digital skills training program is offered in local languages and designed for female farmers. In addition to building women's digital skills, the program helps them find agricultural information, such as weather forecasts and crop prices, and sell their products online (Beyond Access, 2012).

Such library programs are a start. However, stronger commitments from the public and private sectors may still be required for women to truly reap equal benefits from equal participation in the digital revolution.

(For more discussion on the interplay between access to information and gender, see Chapter 5 for Nancy Hafkin's essay and Chapter 1 for data on the digital divide.)

50 percent in the pass rate (rising to 65 percent from 45 percent) in information and communication technology (ICT) exams among third-grade students when compared to previous years. Based on these positive results, in 2014 additional funding supported the expansion of the program to three additional regions in Ghana. The project reached more than 3,800 students at 25 schools by the end of 2016 ("Hands on Computer Classes for Struggling Students," n.d.).

Access to information, in its fullest sense, includes the production and sharing of information and multimedia, as well as the creation of physical objects. This allows for skill-building and hands-on application of knowledge. Many libraries have introduced makerspaces, robotics classes, and other programs that stimulate creativity by providing opportunities to tinker. In this way, libraries support individuals' growth from passive consumers to active producers, as shown in the example below.

• In Germany, the Cologne Public Library renovated a portion of the main library to build a makerspace that provides access to technologies such as a 3D printer, advanced software and hardware, and additional print and physical resources used in creative pursuits. As a public institution open to all, the Cologne library is also partnering with community members to provide training through formal and informal means, further facilitating local knowledge sharing through creative activities ("Music, media, makerspace – the new services of the City Library of Cologne," n.d.).

### Libraries promoting civic engagement

Libraries are well-positioned to provide opportunities for public dialogue and civic participation. With strong local roots, they are typically regarded as safe and trusted institutions in their communities, characteristics that can prove valuable when tackling challenging issues. Public libraries are often publicly funded as well, setting them up as nonpartisan intermediaries between the will of the people and the vested interests of local governments. As such, civic engagement programs in public libraries can help to strengthen civic life when they facilitate citizens working together to make a difference in their communities. The following two examples show how library programs have helped to foster a renewed sense of national identity in Colombia and advance more effective local governance in Chile.

• In Colombia, public libraries have taken an active role in reconciliation as the country tries to end hostilities with rebel forces and normalize previously militarized zones. The program, "Comparte Tu Rollo" (loosely translated as "Tell Your Story"), is a partnership between the National Library and HistoryPin, a nonprofit organization. In the program, libraries work with community members to talk about their local history, share stories of the past, and upload digital collections of photographs

of their communities. In the initial stages, the National Library discovered a tremendous desire among citizens to engage in sharing personal and community stories, building a shared history, and understanding similarities and differences with other Colombians in various regions in the country. The need was greatest in regions where there had been little or no formal federal government presence. Building on Tell Your Story, the National Library is planning future programs, including facilitated community dialogues based on a curated set of media; skills development for citizens to create media that highlight issues of importance to the community; and a design thinking methodology for community members to choose a big question they want to solve and then conduct research (using physical and digital resources), debate, discuss and agree on a solution. Another partner in this effort is Libraries without Borders. The ultimate aim of these programs is to promote peaceful and inclusive societies throughout Colombia, leveraging the country's 1,250 public libraries as platforms for civic engagement (National Library of Colombia, personal communication, March 31, 2017).

Chile offers another compelling example. Chile's public libraries have long played a role in providing access to information for its citizens, stemming back to 2002 when the BiblioRedes program brought internet access and training to more than 400 public libraries. Over the years, the country has witnessed public libraries benefiting its communities with ongoing services related to health, education, entrepreneurship, and, in times of natural disaster, emergency services. Based on this successful history, the Fundación Democracia y Desarrollo recognized that public libraries would be natural partners for its work focused on building connections between Chileans and local governments and solving local problems using facilitated dialogues. The resulting program, "Civic Engagement & Public Libraries: Fostering the Relation between Citizens & Local Governments," features a methodology that facilitates the local community in selecting a topic and developing a solution through a set of dialogues held at the library. In this way, the libraries served as civic educators, conversation starters, community bridges, and even visionaries in helping communities solve local challenges (Global Libraries Program [Bill & Melinda Gates Foundation], personal communication, multiple dates).

## Libraries partnering for community development

Most public libraries recognize that partnering with other organizations is a very effective way to leverage their respective strengths and resources to achieve far-reaching impact. This is particularly the case in an operating environment where resources are limited, for the library or partner organizations. Either as single libraries or as part of a regional or national system,

libraries can serve as platforms for partners to magnify the reach and impact of their programs and services while remaining responsive to local characteristics and needs. To any partnership, libraries can bring information resources and expertise, a broad-based audience of library users, and in-depth knowledge of a local community. Throughout this chapter, many of the examples provided have illustrated the immense value of community partnerships. Two other examples worth noting include programs to address youth unemployment in South Africa and health issues and food insecurity in the United States.

- In South Africa, a partnership has emerged between the National Library of South Africa and private industry aimed at expanding ICT-related employment opportunities for youth. The program includes training in digital skills and a graduate internship program for youth to gain practical experience. The collaboration also contributes to the skills development initiatives of the National Development Agenda (National Library of South Africa, personal correspondence, March 28, 2017).
- In the United States, the Kansas City Public
  Library responded to poor health indicators in the
  communities served in an economically depressed
  area of the city by partnering with local health-care
  providers and other organizations to deliver fitness
  and health management classes and expand access
  to healthy foods (Berry, 2017).

### 2.4 Conclusion

The above examples – a small sample of the work of public libraries globally – show how proactive, community-centered public libraries are stepping into areas where there are information gaps and unexplored potential in local communities.

This can be as simple as expanding access through improved infrastructure, such as launching free Wi-Fi hotspots and loaning laptops, or deploying a mobile library to take access to the point of need. It can also be one of the many expertise- or skill-development training programs for women, girls, and youth focused on specific domains to ensure improved literacy, equality, health, and economic development. This can also be seen in outreach programs that target groups such as workers in the agricultural or small-business sectors to help them improve their yields, find new markets, or increase sales through more effective business practices.

Additionally, partnerships have helped libraries increase their outreach to specific segments of the community, in order to address information needs in unique ways. These activities build on the inherent capabilities of the library: its technology infrastructure, knowledgeable and engaged staff, the trust of the community, and its knowledge of the local environment, especially as it relates to access to information and needs.

However, the work of libraries is clearly affected by the environment in which they operate. When they lack broad-based support, they are less able to fulfill their mission of providing free information access to all members of society. Consequently, current users, potential users, and their broader communities miss out on the opportunities needed to build their capacities and pursue their individual and collective interests.

Libraries need the support of public partners, both in implementing or scaling programs and in shaping the policy environment. Good information access policies, in areas such as copyright and content licensing, can have dramatic impacts on the type and range of services that public libraries can provide when it comes to access to information. Likewise, special attention to libraries' physical and infrastructural needs, whether in the form of reliable power supplies (through backup generators or solar panels, for example), use of universal service funds to support high-speed internet connections, or well-designed, user-friendly facilities, are also integral.

Librarians are aware of their broader public mission and potential to deliver development goals on behalf of the wider community. Proactively identifying and delivering needed access to information can help propel dramatic changes such as improved agricultural yields, increased awareness and adoption of healthy behaviors or practices, development of effective and sustainable employment for people to improve their economic standing, and many other benefits. Traditional tools, such as mobile libraries, and newer ones, such as digital technology, allow them to increase their footprint.

Libraries welcome the opportunity to cooperate with other actors working in the development realm to go further still. For governments and development agencies, including libraries in such partnerships offers vast opportunities to reach further, and achieve more.

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#### **End Notes**

<sup>1</sup> For details on the Lyon Declaration, visit <a href="http://www.lyondeclaration.org">http://www.lyondeclaration.org</a>.

<sup>2</sup>The chapter does not include the same level of quantitative analysis provided in Chapter 1, nor does it introduce library-specific DA2I baseline indicators. This is because, at present, any reliable, standardized, global data on libraries is virtually nonexistent. Fortunately, a number of regional and global data efforts are underway, which may yield better library data for analytical purposes in future DA2I reports.