



# POLICY OPTIONS FOR CONNECTING AND ENABLING THE NEXT BILLION

## SUMMARY

The main policy options proposed by the Dynamic Coalition on Public Access in Libraries (DC-PAL) address the issues of *access to Internet infrastructure* and *access to knowledge on how to use the Internet infrastructure*. While the stated goal of physically connecting the next billion can be achieved by using libraries as community hubs – both for information and communication technology (ICT) hardware and to provide wireless Internet connection (Wi-Fi) – libraries also contribute greatly to enabling the new users to benefit from the Internet, through the skills and expertise of the librarians and information professionals who work there. These people are key resources for teaching media and information literacy to new users.

## DEFINING “CONNECTING AND ENABLING THE NEXT BILLION”

*Connecting and Enabling the Next Billion* seeks to enable citizens to take part fully in the global and local information society. We live in an increasingly globalised world, and it is reasonable that all citizens should be able to participate. Access to an open Internet is a simple means of achieving this since it provides information and knowledge as well as a tool for communicating citizen feedback to policy-makers.

As public access already is provided by libraries across the world, they should be seen as obvious partners in connecting the next billion.

To participate fully in a digital world, people need to have meaningful access. For this, they need not only the capability to consume and interpret various media types from a wide array of sources, but also the tools and skills to produce content themselves. While online companies invest heavily in mobile-friendly formats, it is still difficult to create a two-page document with a simple graphic element on a smart phone, meaning everyday actions such as doing homework or sending in a CV and job application are hard to accomplish. Online forms are often not formatted for use on phones and many tablets. Access to the right hardware remains essential.

## FACTORS TO CONSIDER FOR LOCAL POLICY MAKERS

Public access to the Internet in the form of a shared community access point, in particular at a public library, requires the least infrastructure investment to serve the greatest number of users. Therefore, an effective way of achieving connectivity for the next billion is to use libraries as community hubs to provide physical *access* to the Internet (e.g. through Wi-Fi and terminals), *skills* on how to use ICTs, *opportunities* to use the technology in a meaningful way, and *assistance* on how to critically evaluate the accessed information.

For libraries to provide this service it is however necessary that policy makers are aware of the technical and human resources required, and take an active part in financing infrastructure and library staffing.

Findings of the Library perception study in six African countries (Ethiopia, Ghana, Kenya, Tanzania, Uganda and Zimbabwe) show that most people believe in libraries’ potential to contribute to community development through services and programmes that go beyond passive provision of books, particularly:

- Services focused on health, agriculture, employment and business,
- Connecting citizens to government resources and tools,

- Education, learning development for both children and adults,
- Providing Internet access and training to build computer skills.<sup>1</sup>

What a community access point may lack in ubiquity and mobility, it makes up for as being most affordable, as a low- or no-fee basic service and as a fixed facility with potential for adding enabling support services and equipment.

For example, the United States federal Broadband Technology Opportunities Program (BTOP) launched in 2009, sought to connect community hubs like libraries, community centres, schools, clinics, etc. as "intermediate end points". It has proven an effective twofold strategy by providing and/or increasing connectivity for large populations at priority locations and stimulating further public and private investments by creating convenient access points in wired and wireless broadband network build-out. Recent changes and additional investments in the Universal Service Fund (USF) programmes continue to expand this model.

Despite many USF programmes only partially realising their potential, they still provide a common structural and institutional financing mechanism as well as a powerful rationale to connect libraries and so enable public access. National telecommunications regulators and national finance ministries can and should be encouraged to upgrade and enhance these programmes to achieve universal access, via a public access strategy.

Increasing the amount of licence-free spectrum for Wi-Fi is a companion policy that supports lowest-cost public access. All spectrum originates as public property, the public airwaves. Selling it all off or giving it away only to have to buy some of it back as services, would be like a community selling all of its public land and then using the proceeds to lease some back to create public parks. Policy-makers should look to identify and make spectrum available in the interests of public access.

To summarise this section, we want to underline that consideration of libraries as providers of access to ICTs needs to be integrated into all government policies and programmes. ICT development is a shared responsibility across ministries and departments, as the public's ability to access the Internet affects their ability to benefit from all government-provided social services intended to increase public welfare.

## **BARRIERS BETWEEN INTERNET ACCESS AND INTERNET USAGE**

A noted barrier for using provided connectivity is lack of digital literacy skills, i.e. a general knowledge of how to use ICT hardware as well as understanding what effect ICT will have on everyday life in terms of provided services (such as online banking, weather forecasts, news, etc.)

If the growth of Internet adoption is slowing down in some areas, notably as broadband services extend to more remote, less densely populated areas where the increasing costs of building connections are not matched by potential returns on investment for private companies, it is very important to define the barriers or limitations preventing people who *do* have Internet access from being enabled or empowered through such connectivity.

It *must* be taken into account that mobile phones are not a sufficient connection in these areas. Firstly, not enough people that have them, and secondly, phones do not provide sufficient access to do such things as start a business or look for a job.

The digital divide was recognised as early as 1985, in an International Telecommunication Union (ITU) report on worldwide telecommunication,<sup>2</sup> and as David Souter puts it: *"We should recognise that new technologies will keep changing the nature of digital divides, making gaps between ICT-rich and ICT-poor very hard to bridge. The other side of the digital divide is not static; it's moving every day as new technology's deployed and fresher innovations are adopted in wealthier societies. ICT strategies need to recognise that the bridge they're building may never be completed – and that that's why it's important to keep building."*<sup>3</sup>

<sup>1</sup> EIFL (2011). Perceptions of Public Libraries in Africa: Full Report. EIFL / TNS RMS East Africa. Available at: <http://www.eifl.net/perception-study>

<sup>2</sup> Maitland, D. et al (1985) *The Missing Link* Available at: [http://www.itu.int/dms\\_pub/itu-s/oth/02/0B/S020B0000014E02PDFE.PDF](http://www.itu.int/dms_pub/itu-s/oth/02/0B/S020B0000014E02PDFE.PDF)

<sup>3</sup> Souter, David (2016) "Inside the Information Society", <http://www.apc.org/en/blog/inside-information-society-how-digital-divide-has>.

The digital divide will not cease to exist, but the gap can be narrowed, with the help of libraries. One example of increasing the digital literacy of citizens – resulting in digital inclusion – is Indonesia, where 82% of public library users increased their use of technology as a result of library services.<sup>4</sup>

## **LIBRARIES, ICTS AND THE SDGS**

First and foremost, access to information has been recognised in the United Nations Sustainable Development Goals (SDGs) as a target under Goal 16.10: *Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements*. Increasing access to ICTs will be crucial to ensuring public access to information.

The Beyond Access initiative and the Electronic Information for Libraries (EIFL) Public Library Innovation Programme show that libraries are partnering with development practitioners and donor agencies to deliver policy objectives in the areas of literacy, education, employment, agriculture and health.<sup>5</sup> This is a good example of the work libraries can undertake to support development projects.

The vision for the UN 2030 Agenda includes universal literacy,<sup>6</sup> and worldwide 320,000 public libraries (73 percent of them in developing and transitioning countries) and more than a million parliamentary, national, university, research, school, and special libraries ensure that information and the skills to use it are available to everyone, making them critical institutions for all in the digital age.<sup>7</sup>

### **SDG 1: REDUCING POVERTY**

In Slovenia, the Ljubljana City Library hosts an Employment Information Service (EIS) which helps around 1,200 people a year (many of whom are homeless or receiving social benefits) to develop their CVs and find work. As many homeless patrons of the library suffer from drug abuse, the library works closely with the Centre for the Prevention and Treatment of Drug Addiction at the University Hospital of Psychiatry in Ljubljana to support rehabilitation, reintegration and social inclusion.<sup>8</sup>

In Sri Lanka, the eLibrary Nenasala Programme is a government-sponsored initiative to increase digital literacy and access to technology among the nation's poorest residents, often living in remote rural areas. The 300 centres in all parts of the country are open to everyone and are the most robust form of access to infrastructure in many remote and impoverished parts of the country.<sup>9</sup>

### **SDG 2: PROMOTE SUSTAINABLE AGRICULTURE**

We would suggest that progress is being made in terms of inclusivity, particularly when it comes to getting people in rural areas online, or people belonging to vulnerable and marginalised groups. Libraries make strong attempts to provide public access to ICTs in these contexts, and evidence of positive movement can be found in terms of who has access to the Internet, whether through fixed or mobile technology, and the effective use they make of it.

In Romania for example, public library staff worked with local government to help 100,000 farmers use new ICT services to apply for agricultural subsidies.<sup>10</sup> In Uganda, five community libraries have used netbook computers and Wi-Fi

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<sup>4</sup> *Global Libraries Atlas* (2015). Available at: <https://www.glatlas.org>.

<sup>5</sup> IFLA (2014). Contribution to the CSTD ten-year review of the implementation of WSIS outcomes. Available at: [http://unctad.org/Sections/un\\_cstd/docs/cstd\\_wsis10\\_ifla\\_en.pdf](http://unctad.org/Sections/un_cstd/docs/cstd_wsis10_ifla_en.pdf)

<sup>6</sup> UN (2015). "Transforming our world: the 2030 Agenda for Sustainable Development" Available at: <https://sustainabledevelopment.un.org/post2015/transformingourworld>.

<sup>7</sup> IFLA (2016). *Access and Opportunity for All: How Libraries contribute to the United Nations 2030 Agenda*. Available at: <http://www.ifla.org/publications/node/10546>.

<sup>8</sup> Ljubljana City Library (2016). *The Employment Information Service*. <http://eng.mkli.si/index.php/special-services/item/1140-the-employment-information-service>

<sup>9</sup> Global Libraries (2014). *Access to Learning Award (ATLA)*. Available at: <http://www.gatesfoundation.org/What-We-Do/Global-Development/Global-Libraries/Access-to-Learning-Award-ATLA>.

<sup>10</sup> IREX (2015), "Creating sustainable impact: What we've learned from Romanian Libraries," available at <https://www.irex.org/insight/creating-sustainable-impact-what-weve-learned-romanian-libraries>.

connection to the Internet to train 700 farmers and other community members to start using technology and access information on new crops and farming methods.<sup>11</sup>

### **SDG 3: ENSURE HEALTHY LIVES AND PROMOTE WELLBEING**

In Botswana, 87% of library visitors say their health improved as a result of health information they found using public library services.<sup>12</sup> In Australia, a report released in 2014 found that hospitals, government departments, associations and other organisations involved in healthcare get a \$5 return for every \$1 they invest in libraries.<sup>13</sup>

The government of Kyrgyzstan has launched an intensive national tuberculosis (TB) prevention and control programme. The Kyrgyz Libraries Information Consortium's (KLIC) "No to TB!" service works in partnership with civil society organisations like Project HOPE and the Red Crescent Society to mobilise public libraries to support government goals. Following a pilot grant for three libraries from the EIFL Public Library Innovation Programme, "No to TB!" initiatives were set up in 190 rural libraries with training for 800 people on how to raise awareness of TB, as well as public debates attended by 5,600 people.<sup>14</sup>

The Uganda Health Information Digest published by Makerere University Library re-packages scholarly information in print format for health workers who cannot access the information online, so that they can nonetheless benefit from what is available on the Internet. The digest includes abstracts on tropical disease and health issues. It is distributed to over 1,500 health units including hospitals, health centres, dispensaries, health-related non-governmental organisations (NGOs), district medical offices, all district health and social services committees, and Members of Parliament. The digest is one of the few sources of up-to-date information in remote areas during outbreaks of diseases such as Hepatitis.<sup>15</sup>

### **SDG 4: QUALITY EDUCATION AND LIFELONG LEARNING**

In Botswana, public libraries are supporting some of the government's National Vision 2016 objectives, including introducing ICT access, improving the computer skills of library users, and enabling users to be successful in business, education, and employment.<sup>16</sup>

In New York City, nineteen library branches have specialised adult learning centres that offer classes in pre-GED,<sup>17</sup> English for Speakers of Other Languages (ESOL), adult literacy, citizenship, and ICT skills.<sup>18</sup>

### **SDG 5: EMPOWERING WOMEN AND GIRLS**

Today, we have a more disaggregated view of digital divides, with growing attention, for example, to the the gender digital divide which is apparent in many countries. We know that digital divides between social groups, including the gender digital divide, are closely associated with differences in income and educational attainment.<sup>19</sup>

The National Library of Uganda has provided ICT training specifically designed for female farmers, ensuring that they can access weather forecasts, crop prices, and support to set up online markets.<sup>20</sup>)

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<sup>11</sup> Solar power and ICT connects farmer in four regions of Uganda (2013). Available at: <http://www.eifl.net/eifl-in-action/solar-power-and-ict-connects-farmers-four-regions-uganda>

<sup>12</sup> Global Libraries Atlas (2015), available at <https://www.glatlas.org>.

<sup>13</sup> ALIA (2014) *Australian special libraries' return on investment*. Available at: <https://www.alia.org.au/roispecials>.

<sup>14</sup> EIFL (2014) *Kyrgyz public libraries mobilize hundreds of people to fight TB*. Available at: <http://www.eifl.net/resources/kyrgyz-public-libraries-mobilize-hundreds-people-fight-tb>.

<sup>15</sup> Musoke, Maria G. N. (2014) *Enhancing access to current literature by health workers in rural Uganda and community health problem solving*. In: IFLA WLIC 2014, 16-22 August 2014, Lyon, France.

<sup>16</sup> IFLA (2013), "The Role of Public Libraries in the Attainment of Botswana's Vision 2016," available at <http://library.ifla.org/258/1/201-radijeng-en.pdf>.

<sup>17</sup> GED is a high school equivalency test.

<sup>18</sup> Center for an Urban Future (2013) "Branches of Opportunity," available at [https://nycfuture.org/pdf/Branches\\_of\\_Opportunity.pdf](https://nycfuture.org/pdf/Branches_of_Opportunity.pdf).

<sup>19</sup> Souter, David (2016) "Inside the Information Society", <http://www.apc.org/en/blog/inside-information-society-how-digital-divide-has>.

<sup>20</sup> (This contribution can of course also be related to the sustainable agriculture in SDG 2. Beyond Access (2012), "Empowering Women and Girls Through ICT at Libraries," available at [http://beyondaccess.net/wp-content/uploads/2013/07/Beyond-Access\\_Girl-sandICT-Issue-Brief.pdf](http://beyondaccess.net/wp-content/uploads/2013/07/Beyond-Access_Girl-sandICT-Issue-Brief.pdf).

In Guatemala, through the Rija'tzuul Na'ooj library's business centre, which offers free Internet access, technology and business skills training and space to meet, women have learnt to advertise their products on social media, prepare their accounts, and include the cost of their labour and raw materials in the prices they set for their fabric.<sup>21</sup>

## **SDG 8: ECONOMIC GROWTH AND PRODUCTIVE EMPLOYMENT**

In Ukraine, one in three public library visitors used technology provided there for business communications, and 62% of those who used library services to apply for a job received an offer.<sup>22</sup> In New York City, the Science, Industry and Business Library, Queens Public Library, and Brooklyn's Business and Career Library (B&CL) run popular business plan competitions that offer guidance to participants, targeting current and prospective business owners from underserved communities.<sup>23</sup> In the European Union, 1.5 million people used public library computers to apply for jobs in 2012, and more than a quarter of a million of them secured jobs this way.<sup>24</sup> In Croatia, Rijeka City Library opened a lively makerspace, equipped with laptop computers with 3D design software, 3D printers, a 3D scanner for 3D printing workshops, and Raspberry Pi mini-computers – all tools that allow young people to learn and work on creative projects, and advance their knowledge of computer technology.<sup>25</sup>

## **SDG 9: INDUSTRY, INNOVATION, AND INFRASTRUCTURE**

Libraries are at the heart of research and academic life. They provide access to high speed Internet, research infrastructure and skilled professionals. In many countries, public and educational libraries are the major or only providers of Internet access at low or no cost, and so are a critical means of increasing connectivity.<sup>26</sup> One example of the economic impact of libraries can be seen in Latvia, where for every dollar invested in public libraries from 2008—2010, nearly \$2 in value (direct and indirect) was created. The return on investment of computers and Internet use in public libraries was even higher, returning more than \$3 for every \$1 invested.<sup>27</sup>

## **SDG 13: CLIMATE ACTION**

Cyberiada, a branch library of a public library in Elbląg, Poland, partnered with environmental experts and ecologists to design an interactive education programme on ecology and the environment. The programme enabled over 2,000 children to learn about environmentally friendly lifestyles.<sup>28</sup>

## **SDG 16: PEACE, JUSTICE AND STRONG INSTITUTIONS**

It must be the obligation of a government to ensure access to public information and services (e.g. government forms) at all levels. As many such services move to an online environment, commonly referred to as eGovernment, there must be support and advice for citizens on the digital transition. eGovernment has many benefits in terms of reducing costs (mainly for materials and administrative staff) and increasing productivity, but will only succeed only if citizens are enabled to use them. The sometimes-offered government response to the access gap – "Go to the library. They'll help you" – is not an option unless libraries have adequate resources in terms of staff and equipment.

An example of how libraries can contribute to peace and justice can be found in Colombia. There, preparations are being made to connect unconnected regions in the country as a complement to the peace process that is underway with the Revolutionary Armed Forces of Colombia (FARC). The communities that historically have seen the most violence, and where many of the current issues of the conflict originated, do not have access to the Internet or, in many

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<sup>21</sup> *Rija'tzuul Na'ooj Library empowers talented women weavers in Guatemala* (2013) EIFL Public Library Innovation Award for empowering women and girls, available at: <http://eifl.net/eifl-in-action/empowering-women-and-girls-innovation-award-0>

<sup>22</sup> Global Libraries Atlas (2015), available at <https://www.glatlas.org>.

<sup>23</sup> Center for an Urban Future (2013), "Branches of Opportunity," available at [https://nycfuture.org/pdf/Branches\\_of\\_Opportunity.pdf](https://nycfuture.org/pdf/Branches_of_Opportunity.pdf).

<sup>24</sup> Public Libraries 2020 (2014), "See the numbers," available at <http://www.publiclibraries2020.eu/content/see-numbers>.

<sup>25</sup> Rijeka City Library, Croatia (2015) "3D printing project turns library into youth 'Makerspace'" Available at: <http://www.eifl.net/eifl-in-action/3d-printing-project-turns-library-youth-makerspace>

<sup>26</sup> Alliance for Affordable Internet (2015). *The 2015-16 Affordability Report*, available at: [http://a4ai.org/affordability-report/report/2015/#prioritise\\_public\\_access\\_facilities](http://a4ai.org/affordability-report/report/2015/#prioritise_public_access_facilities)

<sup>27</sup> Trešais tēva dēls (2012). *Economic value and impact of public libraries in Latvia: A Study Report*, available at: <http://www.kis.gov.lv/download/Economic%20value%20and%20impact%20of%20public%20libraries%20in%20Latvia.pdf>

<sup>28</sup> *Public library's environmental education programme inspires young people to action in Poland*: EIFL Innovation Award for Improving People's Lives (2016). Available: <http://www.eifl.net/eifl-in-action/improving-peoples-lives-innovation-award-0>

cases, to voice and data networks. They are totally isolated. They do have libraries but these are widely dispersed. The social organisation MAKAlA (a member of the Beyond Access network) is exploring using TV White Space (TVWS) to bring Internet to these communities.<sup>29</sup> The idea is to use an unused part of the TV spectrum to increase availability and convenience of library Wi-Fi access at new fixed or portable community hotspots.<sup>30</sup> The technology has already been tested in Colombia and is in the process of being provided for in regulation. If successful, the project could be replicated in many other rural and remote parts of the world.

Yet even if it is successful, connectivity without ICT adoption could be counterproductive. As stated above, meaningful access means developing people's capability to consume and understand various common media types from a wide array of sources, but also providing them with the tools and skills necessary to produce and share content. Librarians are key to this process, and must be mobilised as partners to connect and enable the next billion.

## RESOURCES

- [Connecting people for development: Why public access ICTs matter](#) – research report on [The Global Impact Study](#) by TASCHA
- [How Libraries Can Connect the Next Four Billion](#) – factsheet published by IFLA, IREX, and Beyond Access
- [Principles on Public Access in Libraries](#) – principles produced by DC-PAL (Dynamic Coalition on Public Access in Libraries)
- [Public Access: Supporting Digital Inclusion for All](#) – briefing written by IFLA together with APC (Association for Progressive Communications) and TASCHA (Technology & Social Change Group, University of Washington)
- [Statement on the Ten-year Review of Progress Made in the Implementation of the Outcomes of the World Summit on the Information Society](#) – statement by IFLA and others

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<sup>29</sup> MAKAlA. <http://www.makaia.org/>

<sup>30</sup> Gigabit Libraries Network – WhiteSpace Project. <http://giglibraries.net/page-1712342>