

# ICT education and access in public libraries: Library Development Program

Łukasz Kołodziejczyk\* and Małgorzata Szyndkielewska\*\*

Institute of Information and Books Studies, University of Warsaw, Poland

\**luk.kolodziejczyk@gmail.com* and \*\**m.szynkielewska@wp.eu*

## Abstract:

During last years a rapid growth in access to information and communication technologies could be observed in Poland as well as in other European countries. At the same time many investigations show that access to the new technologies, knowledge about available services and IT skills are still not developed well enough. It's noticeable especially in poor and rural areas. Local public libraries in such areas are usually the only places providing ICT support for communities.

The Information Society Development Foundation (ISDF) created by Polish-American Freedom Foundation (partnered with Bill and Melinda Gates Foundation) ordered a set of reports to better understand the level of ICT access and services provided to the people by local public libraries. Majority of libraries are equipped with computers and are connected to the Internet, although the quality of hardware and the Internet bandwidth are not always meeting current standards. The Library Development Program (LDP) is set for the period of 2009-2013 and aims to change the image of making them centers of cultural and social activities. However, to reshape a library into modern information center, attractive for local communities, librarians and libraries have to change. Library will meet user's needs only when librarians will be fluent in the world of digital information, thanks both to their improved skills and access to better information infrastructure. The secondary goal is to build the network of libraries which would last even when the project itself is finished.

The purpose of this paper is to present an analysis of reports in the field of computer and Internet access, on-line services, as well as evaluation of actions taken by ISDF within The LDP as a case study on fighting with digital divide. We describe the key results of investigations commissioned by ISDF, the details of the program, organization of libraries' network and the first recruitment for the program. Polish experience in bridging the digital divide might be useful to the international community of specialist from information field.

The topic was selected because of involvement of our fellow students at the Institute of Information and Book Studies with the Library Development Program – during last year 12 students were volunteering at the Information Society Development Foundation.

## 1. The development of Information Society and its drawbacks

Thanks to Alan Turing's mathematical model of computer the possibility of using machines for processing data was speaking to man's imagination even before the first working computer (ENIAC) was created. In the next 60 years the growth of computer science has been the main factor that implicated an information revolution comparable to the Gutenberg's invention of printing. Firstly computers were used mainly by armies, scientists and quite soon the technology became available to hobbyists. With growing capabilities and decreasing costs of the machines and invention of GUI (*graphical user interface*) the idea of having computers in every household and every workplace started to take shape.

Nowadays, a little more than 30 years after the first personal computer made its début on the market, the Internet has enormous impact on probably every aspect of our World and many occupations exist only because of the computers and the Internet. More and more information is available only on internet websites. Lecturers at universities do not accept hand-written dissertations and sometimes even ask only for electronic version for the ease of reading and storage. It's still possible to live without the new technologies but it seems that a person who does not use them will become a second class citizen. The more our society takes benefits of digital technologies the bigger the gap is between those who have access and skills to use it and those who do not. This gap is called the *digital divide*.

Description of the scale of the problem in Poland, based on various reports, is going to be shortly presented and one of the ways of how it could be solved is to be referred.

## 2. The scale of digital divide in Poland

The term *digital divide* usually refers to a global problem of inequities. One could think that in Europe the differences remind more of a pit than of divide. But is it true? Even within the European Union the problem is easily noticeable. For instance, to measure the relative performance of countries in the wide broadband economy European Commission uses a Broadband Performance Index (BPI). According to Annual Information Society Report from 2009, the best performing country in the BPI ranking is Sweden with its BPI over 0.75, while Poland was ranked as 28<sup>th</sup>, with a performance slightly over 0.20, just before Cyprus which was ranked last. Therefore there is a gap among European countries that can be called divide with no hesitation.

The BPI is structured along six dimensions: broadband rural coverage, degree of competition, broadband speeds, broadband prices, take up of advanced services and socio-economic context, which allows to identify strengths and weaknesses of a broadband economy. The key issues for Poland are broadband low speeds and high prices, which are caused by low levels of competition. There are 40 entities operating on the Polish market which provide Internet access to individual clients. The biggest providers are:

- Telekomunikacja Polska Inc. - operates in all regions of Poland with estimated number of clients over 2 million.
- Dialog Inc. - operates in 7 regions with estimated number of clients over 500 000.
- Netia Inc. - operates in 13 regions and offers its services mostly to business clients.

Poland is among the least developed EU countries in terms of Internet access penetration. However, it should be emphasized that there is an instant progress. As of January 2009, the broadband Internet penetration rate in Poland equaled 12.8%. During the 12-month period (from January 2008) the rate increased by over 4%, while since 2007 almost 8%. And although that only 48% of all households in Poland have nowadays Internet access, it is a growth from 41% in a previous year.

But what about the usage of Internet? Lack of infrastructure leads obviously to lack of possibilities to gain an experience and become computer literate. According to Analysis of the Library Program Planning Context: report from 2008, almost 61% of adult Poles (aged 16-74) have used the computer, yet in rural areas the share is lower – just around 51%. One-third uses computers on an almost daily basis, but in rural areas it is again 10 points less. The disproportions between the society as a whole and rural citizens are even bigger when it comes to Internet use. 52.2% of all adults and 39.3% living in rural areas have used Internet at least once.

According to the Social Diagnosis, the main cause for not having a computer according to respondents' opinions was the lack of money. On the other hand, the lack of Internet access is not caused by financial limitations any more but rather by the lack of need – so say 24.2% of all households and 27.6% of rural households. Other important causes rural citizens indicated are the lack of skills to use the Internet (15.2%) and technical limitations as regards Internet connection (10.1%).

Therefore, what is the plan to bridge this digital divide? First regional policies for development of information society were initiated in 2003-2004, before joining the European Union. Current digital strategy is called the 'Computerization Plan for Poland in 2007-2010'. A new strategy is also being formulated for the coming period of next three years: 'Strategy for Information

Society Development till 2013'. Objectives of those plans are supporting small and medium entrepreneurs intending to provide Internet service in the regions where this kind of business operation is not profitable and financing access to the Internet for people of low incomes. However, because of environmental and economical conditions accomplishing such results as in much smaller and flatter countries, like the Netherlands or Denmark, is highly improbable. That is why it should be emphasized that there is existing, relatively dense network of points, which can be supported in order to counteract with digital exclusion. Connection points, which might become “windows to the World” in underdeveloped areas, providing an access to computers, Internet, as well as an assistance in using these resources – libraries.

### 3. The Library Development Program - foundation and basis

The Information Society Development Foundation (ISDF) created by Polish-American Freedom Foundation (partnered with Bill and Melinda Gates Foundation) in April 2009 began enrollment to Library Development Program (LDP). The main goal of the Program is to use new information technologies to recreate rural and municipal libraries as multifunctional centers for informational, educational and cultural activation of community members. Before the end of 2013, when the program ends, libraries which will be taking part in program should gather abilities and skills that could be used in self-development of local community. The more detailed goals are as follows:

1. Information and knowledge needs of inhabitants will be served better by libraries.
2. Inhabitants will have access and skills to use the benefits of new informational and communication technologies provided by libraries.
3. Libraries and librarians will be seen as important in development of citizens, local communities and the country as a whole by users, local authorities and public opinion.

FRSI believes that today's function of libraries have to go far beyond only gathering and lending books. FRSI's vision of an ideal library can be summed in several points describing functions of library:

1. Promotion of culture and reading:
  - Gathering and lending books are always a vital part of library's work. New technologies can and should be embedded in the process (for example: possibility of browsing OPAC and reserving books by the Internet or telephone).
2. Work with children and youth:

- Library should be open for young people and become natural place of after-school activities associated with culture and entertainment. Librarians should have sufficient interpersonal skills as their role includes education.
3. Access to library's resources:
    - Using new technologies can highly improve access to library's resources. Library should digitize documents, gather resources in digital form (mp3, CD, DVD etc.), provide access to documents digitized by other organizations etc.
  4. Multimedia services and education:
    - If possible library should organize simple courses educating community members with use of multimedia (for instance course of creating web pages for people running their own business). Library should stimulate people to exchange their skills, for instance organize workshops where somebody familiar with using a video camera and basic film-editing will teach others.
  5. ICT for the excluded:
    - Library should take care about people who have specific problems with the use or access to the ICT (elder people, disabled people) and try to support them with at least basic skills. Library should try special solutions as this matter is noticeably more difficult. Good examples can be individual tutors (volunteers) or use of techniques where the problems can be omitted (for example e-learning for disabled people).
  6. Support for local self-organizing:
    - Libraries interiors are often one of a few places in rural areas where community members can create meetings of both formal and informal groups that help integrating community. Librarians should encourage people to create such groups and actively help with organizing them.
  7. E-administration services education:
    - More and more government institutions offer their services online. It is important to popularize it and make it accessible to the community, especially in rural areas where distances to governmental offices are often greater than in cities.
  8. Local information center:
    - Information about the nearest area of the library should be gathered with a lot of attention. Municipal library should be the first place a researcher goes find out about local history, places of interest, services provided by local market.

It's clearly visible that providing libraries with computers, multimedia equipment (printer, scanner, beamer, photographic and video camera etc.) is not sufficient to fulfil this vision. The change can not be done without will and hard work on the side of libraries' employees. It might be considered too much of requirements for the library in rural areas but in fact the potential of public libraries in such areas is huge and, as it would be referred in next chapter, mostly unused. Villages and small towns have a stable network of 6600 libraries employing 9600 well-educated librarians (41% with full tertiary and 21% with post-secondary education).

#### 4. FRSI library and society research

The matter of interest of FRSI was why there is a problem of digital divide in rural areas while the libraries are equipped quite well and the education of librarians seems to be at decent level. The program "Ikonk@" has been run in years 2001-2008 by Ministry of the Interior and Administration and claimed to be successful as many libraries and their branches were supplied with computers and Internet access.

To find out where the problem lies the Foundation conducted a set of reports on how libraries and librarians work in rural communities, especially considering the field of ICT use and education. All reports are freely available in PDF format on FRSI web site.

The issue of equipment turned out to be only half-adequate. In fact almost all libraries and 40% of branches are provided with computers with Internet access. On the other hand the average age of computers was 3 and a half years, the broadband of Internet usually is less than 1 mbit/s and there is a big problem with peripheral equipment – only 42% libraries own scanner and only 3% has beamer.

Courses on ICT education are organized only by 17% of libraries although great majority of librarians are familiar with computers – 96% use them regularly. As it was said before most of librarians are well educated but mainly in matters of traditional librarian skills. Modern management techniques, cooperation with non-governmental organizations and educational skills are not usually included in curricula of Polish universities and post-graduated schools of librarianship. A factor that may be considered optimistic is that most librarians are eager to learn and claim that could spend 2 days a month having trainings.

Relations between librarians and their customers are usually on a very high level. Community's opinion about librarians can be summed up in several adjectives: helpful, trustworthy, well-mannered, qualified, committed to work.

The reports suggest that creating Internet access points in libraries should not be the most important factor in fighting digital divide. More and more community members can afford a

computer and Internet access on their own – 44% rural households own a computer. More important is to improve knowledge about wise and useful activities that can be performed using ICT and instruct people how to actually do that.

## 5. Details of Library Development Program

A complex program has been prepared by FRISI to release the potential of rural libraries, which they are believed to have, and activate librarians working in areas outside big cities. The Program contains of 4 basic components:

1. Technological support
2. System of trainings
3. Building up libraries system's training potential
4. Marketing and public relations

Several forms of technological support is going to be given. Libraries which don't have computers for users' access will get one or two computers, network hardware (to create public wi-fi network inside library) and multifunctional device (printer, scanner and copier in one device). Municipal libraries will also get a beamer. All computers will be provided with a set of software (operating system, office software suite, antivirus software and selected open-source applications). A help desk is going to be provided. It's very important as most of libraries don't employ an IT expert.

Three types of trainings are designed within the Program:

- A. workshops of library management,
- B. specialized trainings within the field of new services of libraries,
- C. ICT focused on use of hardware and software given to the libraries.

Workers enabled with the possibility of taking part in trainings are both managers of libraries and regular, substantial employers.

The crucial, in our opinion, part of the Program is the third component. FRISI aims to create a network of supporting libraries inside the system of public libraries in Poland. On the top of the network there are 18 *regional coordinators*. Some of their responsibilities are listed below: organizing meetings and conferences of libraries from their region, helping in trainings organization, inspecting progress and achievements of libraries taking part in LDP, contact with local media, authorities and libraries on issues of the Program which means for instance promoting the knowledge about LDP and answering questions about it. The other two elements of network are

leading libraries and partner libraries which together create library partnership. Leading library has more benefits and responsibilities than partner library – the most important difference is the amount of trainings library workers are allowed to take part in. On the other hand leading libraries are obliged to organize further trainings for partner libraries. A simple graph of the amounts of trainings offered to both types of libraries is available below:

	Leading library			Partner library
	Librarians - employers of main library and branches	Representative of local community chosen by library	Representative of municipal authorities	
workshops of library management	10 days	10 days	10 days	only principal of municipal library
specialized trainings	2 x 3 days	2 x 3 days	—	—
ICT trainings	min. 3 days	—	—	Librarians - employers of main library and branches

The goal of such system is to let the partnership go far beyond the time of the Program. It is highly possible that during five years of the program highly specialized trainers will be created in leading libraries.

The fourth element is the marketing and public relations. Main goals are: gaining social trust for the LDP, improving the prestige of librarianship, building libraries' image as a informational and cultural centers. This is going to be achieved by national social campaign including television advertisements. Moreover, libraries' community around the Program are going to be integrated and partnerships on local, regional and national levels and cooperation with media are going to be built.

The Program has just moved out of the first phase which is recruiting leading and partner libraries. The first round ended with a number of 612 municipal libraries (153 leading and 459 partner libraries). Those libraries have 1255 branches which gives a total number of 1867 libraries and library branches. FRSI claimed that the number of applications were significantly bigger but not every library has met requirements stated in the Program. The second round of the Program is going to take place in 2010.

The current progress of the Program can be looked up in the web site of the project: <http://www.biblioteki.org> and the web site of Foundation: <http://www.frsi.org.pl>. Both websites are available in Polish and English but English version contains significantly less information and some of FRSI's reports are available only in Polish.

## 6. Conclusions

In the struggle with digital exclusion two things are the most important: connectivity and intelligibility. First one is obvious, without access points there will be no access. Although Poland is still severely affected by infrastructure problems and low coverage rates, with particularly low levels of competition, which causes high prices of broadband connection, there is constant progress in widening access to the Internet.

The second is easy to forget, but unintelligible service is a useless service. The Library Development Program focuses not only on a role of library in information society as an access point, but as a place that encourages the use of the Internet, the acquisition of skills and their continuous learning. A place which will not only fight with digital divide, but also counteract the emerging Second Digital Divide. As written in a European Commission report results of researches “suggest that while all internet users, regardless of age or education, use the internet for communication and for access to information, there are sharp differences for the more advanced services”. Those with higher educational levels use the Internet, not only more often, but more intensively, being not afraid of complex functionalities, like for instance eGovernment services. While educational levels are difficult to influence without long-term national policy, these results suggest the need of the increasing awareness on Internet possibilities and benefits in most excluded groups, like elderly and disabled people, as well as reducing psychological and skills barriers. Therefore, there are still new challenges waiting ahead of modern libraries.

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