THE EFFECT OF MOBILE ACCESS ON LIBRARY SERVICES

E. Tsvetkova

University of Library Studies and Information Technologies (BULGARIA)

Abstract

The invention of the internet and the development of contemporary information and communication technologies (ICT) have drastically changed the world. Mobile technologies and devices are ubiquitous and offer access to information and communication opportunities regardless of time and location. The power, functionality and accessibility of mobile devices increase on a daily basis, thus providing more and more opportunities.

The extensive insertion of mobile technologies in everyday life reveals new ways of their effective application in education, science, access to information and, in particular, library activities. It is inadmissible for a contemporary library not to use actively the new communication technologies, not to offer online and mobile access to its services and resources. In order to answer adequately contemporary users’ needs, information institutions must provide easy and convenient access to their resources as well as services.

This paper presents summarised information and analysis of the use of services offered by the Sofia Public Library, Bulgaria. This is the biggest city library in the country with a collection of over 1,200,000 books, 250,000 from which in foreign languages, with more than 51,000 readers, half of whom under 28 years of age, with 500,000 visitors annually. The library provides traditional resources and services as well as digital collections, online and mobile access to the library’s services. The accent of the present research is on remote access to library services and resources and the influence its provision has on the use of library services and resources.

The paper presents data from the automated information system of the library for the last 5 years about the total number of visits, including online ones. The increase in online visits to the library’s site through mobile devices is noted. A comparative analysis of the number of book reservations online and at the library is done. Information about the number of books renewed online is provided.

In summary, the survey’s conclusions aim to prove the vital role of active using of ICT in library activities. In order to adequately satisfy the information needs of the users and to function in accordance with world tendencies, it is crucial that Bulgarian libraries introduce the opportunities of contemporary information technologies, mobile technologies in particular, to the library information sector in the country. Libraries should be an inseparable part of the contemporary world, where technologies become more accessible and communication – more easily realised.

Keywords: Mobile libraries, Digital libraries, Bulgaria, Sofia Public Library, ICT, Mobile technologies.

1 INTRODUCTION

Contemporary library and information sphere is unthinkable without active use of contemporary information and communication technologies. Digital and, in particular, mobile access to library and information resources and services is one of the key factors in relevant and quality fulfillment of various user needs in the conditions of modern global and information society. „Digital literacy is expressed through the acquisition of skills, including traditional reading-related skills, but is also associated with the use of digital technologies.” [1]. At present it is impossible to assure society-centered attitude and unlimited accessibility to library institutions without the application of new managing mechanisms for adaptation to complex economic, political and social phenomena, to the challenges of the digital era [2].

2 NEW ASPECTS OF THE LIBRARY AND INFORMATION SPHERE IN BULGARIA

Notwithstanding the difficulties in the library and information sphere in Bulgaria, an increasing number of libraries in the country quest successfully their place and role in social and educational environment. First digital and even mobile digital libraries emerged in the last decades. Many library
centers are supplied with modern technologies and digitalisation software to preserve collections and optimise library processes. Library managers realise the importance of European programmes and make effective use of the opportunities they provide for the institutions. This attitude conveys that the role of library education, professional expertise and motivation are highly valued in information specialists [3]. Currently existing university programmes are being enhanced as the accent is on the significance of students’ and educators’ mobility, of the perception of good foreign library practices and professional experience. Lifelong learning is considered indispensable, therefore knowledge and skills of library specialists are constantly developed and improved [4]. National and international scientific forums as well as working meetings and conferences, popularising current tendencies and policies in the information sphere, provide an opportunity for exchange of experience and knowledge. In spite of all these efforts and changes, which some of the libraries in Bulgaria made in the last decades, active measures are still needed in order for information provision in the country to meet contemporary European and world standards.

The creation of digital library collections, accessible in electronic version through the newest forms of ICT, i.e., mobile phones and tablets, is, undoubtedly, one of the positive tendencies in the development of the country's library and information system. Every digital library can be used through mobile devices and, consequently, regarded as mobile on the grounds of this kind of access. Digital libraries respond to modern users’ need for quick and easy access to information.

Digitalisation, online access to cultural heritage and its long-term preservation are the main subject of the strategic plans of the European Union. The number of Bulgarian libraries, offering digital collections of their funds, increases all the time. Mobile digital libraries provide access to a wide range of information resources regardless of time and location. In addition, they are an effective means of popularisation of national cultural heritage abroad thanks to the opportunities of twenty-first-century technologies.

3 SOFIA PUBLIC LIBRARY

One of the libraries in Bulgaria, providing electronic collections and mobile access to its resources and services, is the Sofia Public Library, the largest city library in the country.

24th October 1928 is considered the birthdate of the Sofia Public Library. According to an ordinance of the then mayor Vladimir Vazov, a museum was created. It included three sections – the museum itself, a library and an archive. In the summer of 1929, the library was opened in a building on Slaveykov square, where it is still located at present. The fund of the library consisted of 5 311 books.

Currently the library is in possession of a collection of over 1 200 000 books, 250 000 from which in foreign languages. It has more than 51 000 readers, half of whom under 28 years of age, and 500 000 visitors annually. The Sofia Public Library is composed of one central and three affiliate libraries – “Lyulin”, “Studentski grad”, “Serdica”. As part of it, cultural centers are established – American, Russian and Korean. The library's documentary and information archive of the history of the city of Sofia is the richest one. The Sofia Public Library engages in international activity through information exchange, collaborative participation in European programmes’ projects, qualification of library specialists, relations with foundations, cultural institutions and scientific centers.

Exceptionally valuable are the library’s digital platforms, which are constantly being enriched and maintained in up-to-date condition. The Sofia Public Library manages 2 digital platforms:

- Digital platform “Serdica” – free of charge internet resource aimed at the large public. It contains full-text books, articles and periodicals, digital copies of paintings and audio records from the Sofia Public Library’s funds, documents from exhibitions held at the library, collections of papers on various subjects. On the platform can also be found postcards, photos, films, documents, related to the history and development of Sofia, its schools and cultural institutions;
- Digital archive of “Serdica” magazine – “Serdica” is an illustrated magazine of the Sofia Municipality (1937 – 1952). It is the sequel to “Capital Municipality Newspaper”. It was digitalised in 2006 [4].

The Sofia Public Library takes part in two successful projects for provision of digitalised content in partnership with other cultural institutions – galleries, libraries, museums and archives in Bulgaria:

- Project “Digitalisation of cultural heritage – accessible portal to historical memory”, in which participants are Sofia City Art Gallery, Vaska Emanuilova Gallery, Dechko Uzunov Gallery,
Regional History Museum and Sofia City Library. Every one of these institutions provides its valuable exhibits and documents, which are then brought together on the platform;

- Project “Bulgarian literature classics – knowledge for all. Unknown archives and cultural contexts” – realised in collaboration with the National Literary Museum [4].

In addition to the digital access, the Sofia Public Library offers mobile access to its resources. The library is the first in the country to have a traditional mobile library – a bookmobile – since 2017. The Sofia Public Library’s bookmobile provides service to remote neighbourhoods in Sofia, lacking in big libraries and having limited access to book resources; isolated social groups; retirement homes; Romani people’s communities. Furthermore, the bookmobile participates in festivals, local cultural events as well as school and community celebrations. It has over 700 new books of contemporary and classic authors – fiction, non-fiction, children’s literature. Only within a year the mobile library has had more than 2 500 registered new readers and has done 50 visits of remote schools and areas.

Another form of mobile access that the Sofia Public Library provides to its information resources and services is the mobile version of the online catalogue and internet site. The library uses software product I-lib version 4.1 by the companies Softlib and PrimaSoft, which offers modern, adequate for customers’ needs and requirements access to information.

### 4 MOBILE ACCESS TO LIBRARY SERVICES THROUGH SOFTWARE PRODUCT I-LIB VERSION 4.1

I-Lib v. 4.1 is the most recent version of the popular online catalogue i-Lib and designates an entirely new development project on the platform Apache/PHP/SQL. It is specially designed to present on the internet library and documentary databases in the form of a virtual library including a catalogue and digital content (text, image, sound). It provides modern functions:

- search and visualisation of data in cyrillic and/or latin;
- full-text search of information – the search is performed by every word in all fields of the bibliographic description;
- context search – direct search from the result screen by double click on a certain word or phrase;
- availability – information about availability and number of book copies;
- reader’s cart – recording of chosen library items for subsequent service request, saving of items, etc.
- control of the access to resources depending on the user’s profile and place of use;
- access to personal reader’s card with information about borrowed literature and current status of requests;
- possibility for online recording and renewing of borrowed literature;
- possibility for online saving of literature and tracing the status of the application;
- possibility for online application for a set of services and tracing the status of requests (printing, copying, scanning...);
- reporting and accounting of the paid services;
- possibility for the reader to build up personal thematic virtual book collections (virtual shelves);
- possibility for review of comments and ratings of the books in the catalogue and posting of personal comments and rating;
- presentation of topical top lists;
- most read books;
- most read authors;
- list of the newest books, etc.

Library’s readers can use the services regardless of time, location and device type.
In the Sofia Public Library an extensive exploitation was carried out for a month in 2016, which provided interesting insights about the use of the catalogue and the resources which it offers:

- The number of online users was constantly increasing and it reached 3,900 – about 14% of all registered readers;
- 12-15% of them were using the system through mobile devices;
- Functions of saving and renewing literature were actively used;
- Over 50% of users were coming back after they had once consulted the catalogue and its functions;
- The average time of use was 7-8 minutes, which showed that readers did not only get familiar with the catalogue, but also made actual use of library services and resources in the most convenient for them way;
- At some time intervals the catalogue was visited simultaneously by more than 50 customers and the number of catalogue visits per day exceeded significantly the number of visitors to the library itself [6].

These statistics, as well as many international surveys, communicate the conviction that readers expect libraries to provide new type of service – mobile, accessible all the time from everywhere [7]. The new version of the catalogue opens the library to the unlimited internet resources. Technologies integrated in the software permit automatic search of digital content available on the network solely on the basis of bibliographic descriptions.

5 ANALYSIS OF THE USE OF THE SOFIA PUBLIC LIBRARY’S MOBILE SERVICES

5.1 Library site visits through mobile devices in the last 5 years

This paper presents information from the automated information system of the library for the last 5 years about the total number of visits, including online ones. As it can be seen from the data presented in Table 1, there is a notable increase in online visits to the library’s site through mobile devices. In 2014 there are only 2,945 visits through mobile devices. Nevertheless, in the next years a radical increase is observed and, in 2018, the library site has the impressing 73,338 visits.

<table>
<thead>
<tr>
<th>Visits to the library site through mobile devices</th>
<th>2014</th>
<th>2,945</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td></td>
<td></td>
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<tr>
<td>2015</td>
<td></td>
<td>11,985</td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td>14,773</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td>24,546</td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td>73,338</td>
</tr>
<tr>
<td>TOTAL 2014 - 2018</td>
<td></td>
<td>127,587</td>
</tr>
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</table>

These results show what an important advantage the provision of mobile access to library services is. At present time the use of the internet is natural and online access to information should be ubiquitous. Libraries have to ensure mobile access to their services and resources in order to preserve their role of trustworthy information institutions.

5.2 Book reservations through the online catalogue and at the library

The second analysis presented in this paper is a comparative analysis of the number of book reservations made online and at the library. The data extends over the six-year period 2012 – 2018.

As it is seen in Table 2, the total number of reservations was 3,633 – 1,088 made by filling an application at the library and 2,545 made through the online catalogue. Even at the time, when this service was still being introduced in the library, online reservations outweighed these made at the
library more than twice. In the next years the difference in favour of online reservations persisted and in 2014 the predominance of remote service was clearly noted - more than three quarters of the reservations were made online. In 2018 out of 11 874 reservations 9 874 were made through the online catalogue, i.e., library’s electronic services were used 5 times more than traditional ones.

Table 2. Book reservations through the online catalogue and at the library.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total number of reservations</th>
<th>Through an application at the library</th>
<th>Through the online catalogue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>3 633</td>
<td>1 088</td>
<td>2 545</td>
</tr>
<tr>
<td>2013</td>
<td>4 992</td>
<td>1 421</td>
<td>3 571</td>
</tr>
<tr>
<td>2014</td>
<td>5 804</td>
<td>1 431</td>
<td>4 373</td>
</tr>
<tr>
<td>2015</td>
<td>9 450</td>
<td>1 953</td>
<td>7 112</td>
</tr>
<tr>
<td>2016</td>
<td>9 516</td>
<td>2 741</td>
<td>6 775</td>
</tr>
<tr>
<td>2017</td>
<td>10 289</td>
<td>2 391</td>
<td>7 898</td>
</tr>
<tr>
<td>2018</td>
<td>11 874</td>
<td>2 000</td>
<td>9 874</td>
</tr>
</tbody>
</table>

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These figures confirm that contemporary users prefer remote, personally convenient access to information services and resources. Remote and, in particular, mobile access increases exponentially the effectiveness of library information provision as well as the number and satisfaction of customers. At present it is a prerequisite for quality and efficient work of any library institution.

6 CONCLUSIONS

In conclusion, the use of mobile forms in the readers’ service, especially of mobile digital resources, is the modern means of satisfying user requests and a way for information service in the country to reach contemporary European and world standards. Mobile forms of library provision are realised through the digital collections of public, scientific and university libraries in the country. These collections are a modern and effective form of ensuring online accessible library resources for every person since space, time and other restrictions are overcome. Mobile service should be considered one of the greatest assets of libraries for future development, as digitalisation and electronic services form the basis for the “green library” policy, which supports ecological policies for sustainable development, quality information provision and the Bulgarian society’s progress.

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REFERENCES


