E-learning in the activities of Polish public libraries

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Abstract: The article characterizes the specificity of public library activities and their role in education. The possibilities of using e-learning in the education process were also presented, with particular emphasis on public education. Attention was also paid to the growing importance and interest in this type of education. The paper discusses the possibilities of using e-learning in teaching, with particular emphasis on education conducted as part of the activities of public libraries. The article presents the offer of e-learning courses mainly in provincial and pedagogical libraries. The purpose of the analysis was to verify the scope of e-learning use by libraries, check the availability of training offered and the ease of finding them on library websites. The number of courses offered and their topics were also examined. Moreover, it was taken into account to whom the prepared courses were addressed. The paper presents the current state, possibilities for further development and suggestions of the authors, which are based on the growing technological possibilities, with more common access to the Internet. Research shows that the use of e-learning platforms by provincial public and pedagogical libraries is unfortunately not common. This situation may be dictated by the lack of funds to prepare such projects. This limitation should, however, lose its significance due to the decreasing costs of platform implementation as well as the increasing funds supporting library activities. In addition, the pressure of potential users can motivate the development of e-learning platforms in libraries.

Key words: e-learning, education, public libraries, higher education

1. Introduction

E-learning is becoming more and more popular way of educating oneself in various fields. It is used not only in academies and during employees training, but also on every level of education, at least as a supplement of the main track of classes. Technological development, especially in terms of information technologies, imposes necessity of knowledge update for those who finished their education long time ago. It can be caused by constantly changing professional requirements or be part

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of preparation for running one's own business, especially when it comes to constantly changing law regarding its activity.

Technology influenced the development of the libraries as well. Their invaluable educational role appeared at the beginning of the twentieth century, when public library became "university of the people". Independently of the fact whether particular library has its own formal education programme or not, key function of its employees is to educate groups as well as individuals how to use library tools in the process of research (Burke, 2016, p. 105).

In Poland, function of popularization of knowledge and education in various fields by public libraries is determined by law: "Purpose of public libraries is to fulfill educational, cultural and informational needs of the society and to participate in promulgation of knowledge and culture" (Journal of Laws 2019, pos. 1479, Act of 27 of June 1997 on libraries).

Public libraries, apart from their basic functions consisting of data's collection, compilation and sharing, fulfill their mission as centres of information and culture, which can be seen in particular in minor cities. As an addition, pedagogical libraries serve the need of education and upbringing, including education of teachers.

Changes in the society and common access to the Internet influenced how libraries are fulfilling their tasks. They added online resources, which can be accessed at any time as part of their services. They are often accompanied by short online courses, demonstrating how to access and use those services. E-learning courses are one of the forms of those online courses.

2. E-learning in educational process

Not all interactive resources, even in the form of courses, can be named as e-learning. Various definitions differ from one another when it comes to technology used, as well as the role of the teacher in the process. Pollard and Hillage (2001) define e-learning as "delivery of possibility to learn based on information technologies, Internet and WWW sites and its management aiming at support of learning process of individuals." Such definition could be interpreted in a way that any educational content delivered via Internet is an e-learning. Remaining question is how to organize such courses and their formalization in the aspect of achieving their educational purposes.

General definition of e-learning is given by Mhouti, Erradi i Nasseh (2018, p. 896):

> E-learning system is an application or a platform created for elasticity of learning process, which aims at implementation of learning process theory consisting of organization of content and resources, conduct of courses and training programmes, tracking, recordkeeping and management tasks.

Useful introduction to the terminology used in regards to e-learning is presented by Urdan and Weggen (2000). They are defining e-learning as delivery of educational resources and content via various forms of electronic media, including Internet, intranet, extranet, satellite transmission, audio/video tape, interactive television and compact discs. In their definition, e-learning is education based on technology. They defined "e-learning as a subset of distance learning, as distance learning would include all elements of e-learning plus text-based and correspondence-based learning or courses. However, they see online learning (or web based

learning, WBT) as only one element of e-learning, describing only the Internet, intranet or extranet elements of e-learning. Therefore, online learning is set within e-learning, which in turn is set within distance learning" (see Figure 1).
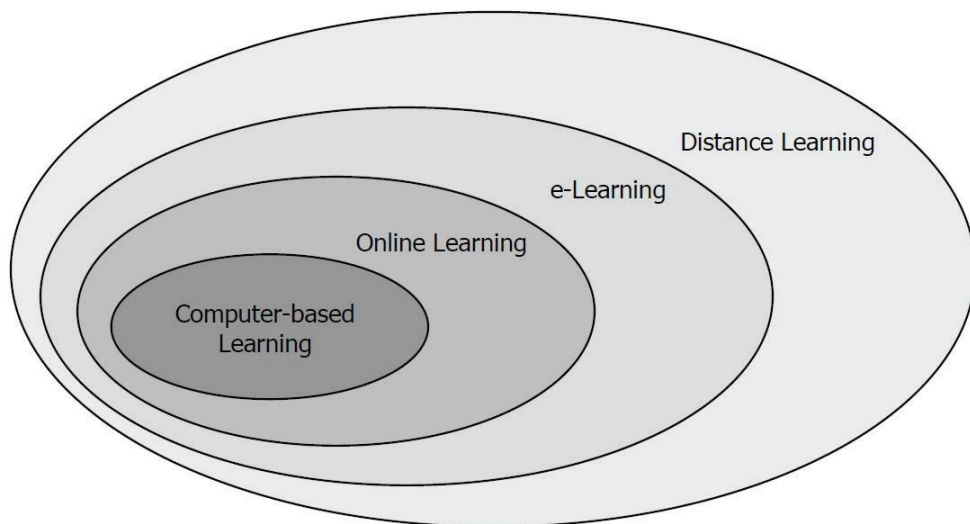

Figure 1. Subsets of distance learning

Development of distance education can be divided into following phases (Hankiewicz 2011):
– correspondence courses;
– education via radio and later the television;
– two-way communication in the form of teleconferences;
– usage of computer networks (e-learning);
– multimedia presentations, simulations and virtual systems;
– mobile technologies (m-learning).

Various sources provide comparisons of e-learning definitions. For example, Leszek Kozioł defines e-learning as "method of gaining knowledge, technique of teaching and way of learning with the use of information technologies" (2013).

Usage of e-learning in the teaching process has its advantages, but also drawbacks. Among the benefits of using e-learning, the practical ones deserve special attention:
– e-learning materials can be available at the most convenient time, divided into short fragments;
– adaptability to student's needs;
– low costs in comparison to traditional way of teaching;
– contents of the courses can be easily updated from one central point;
– shorter learning time due to individual approach and broad selection of available materials;
– limitation of shyness factor and fear of failure—people can learn in a relatively anonymous way;

– integrity and comparability of various courses;
– introduction of interactive courses, also those with learning through play in mind;
– easy progress tracking and assessment tests conducting;
– raising people's IT skills.

It seems obvious e-learning limits direct contact with the teacher and ability to learn in the group. Michał Kozioł points out that e-learning increases one's screen time in comparison with traditional methods (2013).

In addition, potential difficulties when using e-learning may include:
– dependence on technology—users need access to hardware, software and Internet to fully use benefits of such education;
– not suitable for some types of training—particularly for soft skills, which are based on interpersonal relationships, team building, communication and presentation skills;
– impersonality of such courses;
– such courses require a high level of self-discipline and motivation;
– high entry costs when it comes to IT infrastructure;
– often requires the support of trained employees, when it comes to explanation how the platform works, and additional support during learning process.

Some may say that e-learning is only suitable for highly motivated people that understand how to make the most out of educational materials. They need to show some proficiency in the use of Internet (Hills, 2016, p. 6).

3. Analysis of e-learning use in public libraries

Purpose of the analysis was to verify the scope of e-learning use in public libraries, check availability of trainings offer and their accessibility with the use of libraries websites. Number of courses and their topics as well as their target audience were taken into consideration.

Only those public and pedagogical libraries were selected for the study which are seen as central in relation to others in a given voivodeship.

The study is based on methodology proposed by Ewa Jadwiga Kurkowska, which can be described as "analyzing the offer available on the Internet with the assumption that if the library conducts e-learning based training it would be reflected on its website as the Internet is the most popular way of providing information in the modern world" (2012). In addition, the study was extended with verification of target audience and software used of available courses.

4. Research results and conclusions

Out of sixteen voivodeship libraries, only one had an e-learning platform and offered courses through it. It was Voivodeship Public Library and Culture Animation Center in Poznań. The library has completed the project "Construction of integrated and distributed catalogue of regional bibliography of Greater Poland using an e-learning platform". The project was implemented and financed under the programme of the Ministry of Culture and National Heritage "PATRONAGE 2010", which led to the creation of eWBPiCAK e-learning platform (Figure 2). Originally, the system was supposed to be used for online training for librarians, but was extended to serve as a platform for e-learning courses for library's users as well.
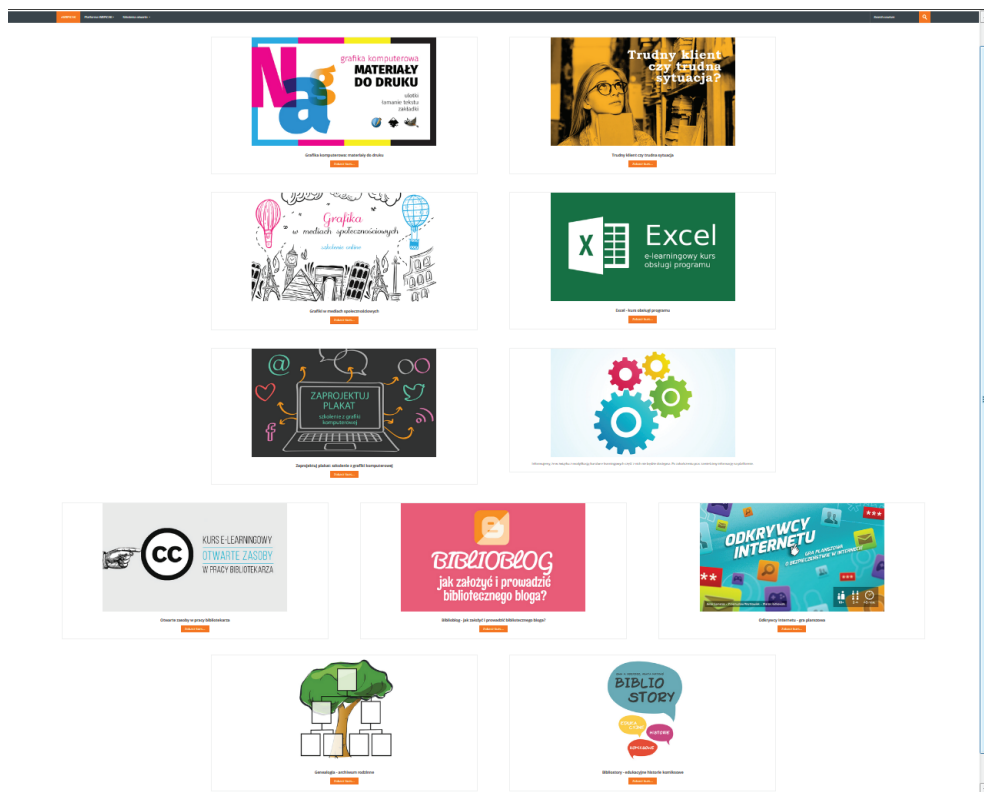
Figure 2. Screenshot from eWBPiCAK e-learning platform

One of the libraries had in its offer e-learning foreign languages courses, but they were available only locally, inside its building and couldn't be accessed from the website (Silesian Library in Katowice).

Four libraries out of sixteen offered their users some online courses, including online library catalogue access training, ability to sign-up online (Voivodeship and City Public Library in Rzeszów), virtual tour (Voivodeship Public Library in Kraków) and interactive map. User guides for all services were provided as PDF documents or short multimedia presentations. Trainings were publicly available and easy to find on library's website. Such form of training cannot be categorized as e-learning, rather than attempts to provide some resources online.

Situation seems to differ when it comes to e-learning resources provided by voivodeship pedagogical libraries. Links to external e-learning platforms such as Moodle were provided on websites of eight out of sixteen libraries. CEN Pedagogical Library in Białystok provides e-learning system based on Moodle platform, which is integrated into the website.

E-learning platforms "can be divided into commercial solutions with closed codebase and open source ones with publicly accessible source code" (Skrzypek, 2015, p. 249). Research shows that public libraries usually choose open source platforms such as Moodle (Modular Object-Oriented Dynamic Learning Environment).

Moodle platform features include (Tabot, Oyibo and Hamada, 2013, p. 18):
– tasks defining;
– discussion board;
– file download;
– grading system;
– internal messages;
– online calendar;
– online messages and announcements;
– online quizzes;
– Wiki.

Moodle platform is world's most popular learning management system, which offers *MoodleCloud* service for e-learning courses hosting and *Moodle Mobile App*, providing easy access to Moodle platform from mobile devices, example of which is depicted in Figure 3.
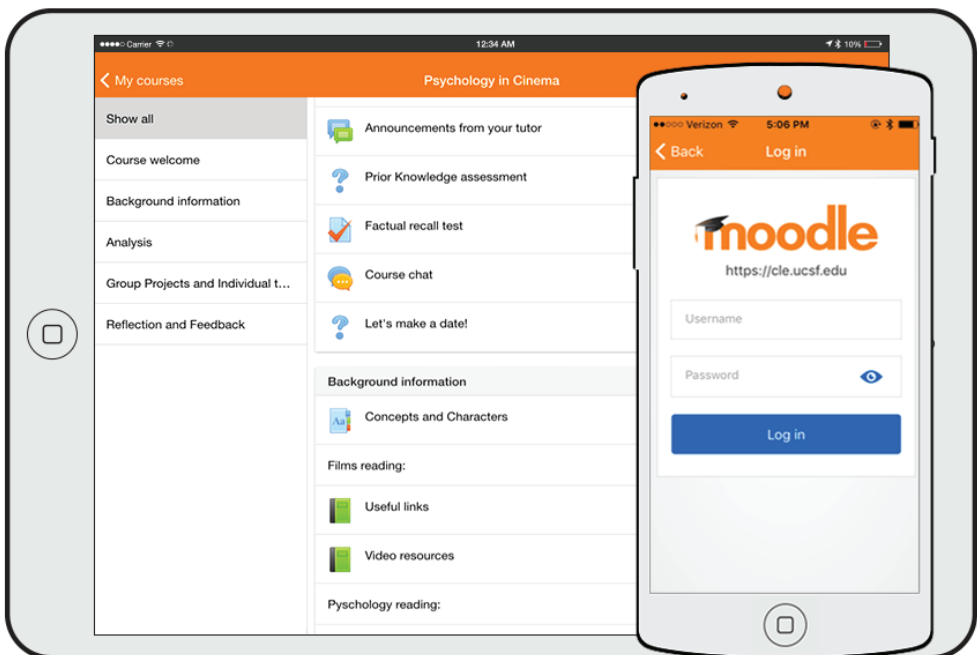

Figure 3. Moodle Mobile App of University of California San Francisco Library

S o u r c e: UCSF Library, 2019.

An example from a library based in the United States was used, as none of analyzed Polish libraries using Moodle platform does not provide mobile access to it.

In one case among analyzed pedagogical libraries websites e-learning platform was inactive (Pedagogical Voivodeship Library in Gdańsk), while Moodle platform is replaced by educational system based on Wordpress called WEBowadbp in Lower Silesian Pedagogical Library in Wrocław. Although Moodle platform integrates both LMS (Learning Management System) and CMS (Content Management System), it's not intuitive (in comparison to the competition) interface is the main factor of the recent shift to alternative content management systems such as WordPress (Tangient LLC, 2010). Constantly changing needs of educational platform's users play also a huge role in such transition. The choice of platform by the organization depends on (Plebańska and Kula, 2011, p. 63):
– educational needs of the organization implementing the solution;
– number of users;
– target audience;
– didactic processes implemented on the platform;
– administrative processes implemented on the platform;
– hardware and network infrastructure,
– experience with e-learning platform implementation and maintenance.

In three cases e-learning platform is available for signed-in users. Example of user creation form from Pedagogical Voivodeship Library in Warsaw website is given in Figure 4.

Figure 4. New account creation form for e-learning platform
of the Provincial Pedagogical Library in Warsaw

S o u r c e: PBW, 2019.

E-learning platform offered by Pedagogical Voivodeship Library in Rzeszów is available even for guest accounts and the one offered by Lower Silesian Pedagogical Library in Wrocław does not require any authentication at all.

Analyzed e-learning courses can be divided into two categories. The first one is for all potential users, the other is for teachers and librarians. First category includes such courses as: blogging (offered by Lower Silesian Pedagogical Library in Wrocław), photo editing course (offered by Pedagogical Voivodeship Library in Katowice) or information and media course for children and teenagers (offered by Voivodeship Public Library and Culture Animation Center in Poznań).

Courses for teachers and librarians are focused on:

– didactic competences such as the use of online resources in education process including online catalogues access and bibliography creation;
– resources used to make classes more interesting including lesson plans, tests, puzzles, colouring books or educational games, perfect example of such resources are those provided by Lower Silesian Pedagogical Library in Wrocław;
– raising competencies of librarians by providing Excel or computer graphics training (offered by Voivodeship Public Library and Culture Animation Center in Poznań).

One of the types of e-learning is "blended-learning", which is combination of online courses and classes held in the library. Such courses are available at Pedagogical Library in Białystok. They are mostly in Polish with exception of one, conducted in Ukrainian.

Basic purpose of e-learning course is, as mentioned earlier, to develop competences of the user, which can only be achieved if training is properly prepared and conducted. Requirements for e-learning courses under development relate to:

– didactic purposes—determine the skills that a course participant should acquire;
– course description—brief summary of the significant learning experiences for a course, schedule or starting date;
– course requirements—skills and knowledge as well as all the hardware or software needed to participate in the course;
– final assessment—what elements make up the final grade and what are the criteria of such assessment;
– contact information—ways in which teacher and participant can communicate with each other.

A benchmark example of e-learning courses can be those offered by Voivodeship Public Library and Culture Animation Center in Poznań. Each of them is provided with set of information including schedule, agenda, target audience, goals, training techniques and contact information (see Table 1). Such preparation is rare to find as most of the libraries provide only basic information such as short description.

Table 1. Example of a perfect e-learning course description

Schedule:
      – from 2 to 30 September 2019 (4 weeks).
Where:
      – course conducted on **WBPiCAK e-learning platform**.

Target audience: Employees of public libraries in the Greater Poland Voivodeship.

Agenda:
      1. Spreadsheets basics:
          – ribbon commands and workspace
          – mouse pointer
          – spreadsheet operations.
      2. We create our own sheet, meaning:
          – formatting—appearance settings
          – data input.
      3. Formulas and functions, meaning:
          – what is the formula and how it is created
          – basic mathematical functions
          – selected functions with the use of conditions
          – selected statistical functions.
      4. Table operations
          – panes freezing
          – filtering and sorting
          – charts
          – printing.

Goals of the training:
Participants:
          – get to know basic features of Excel spreadsheet,
          – are able to create own sheets, charts and prints,
          – are able to modify sheets for data analysis.

Conditions for completing the course: To complete the course and receive a certificate, participants must score 80% of the points.
Methodologies: – individual computer work.
Requirements: – basic knowledge of computer and Internet skills (Adobe Reader, Internet browser, e-mail).
Teacher: Magdalena Rusnok, Instructor of the Methodological and Instruction Department WBPiCAK

S o u r c e: WBPiCAK, 2019.

It should also be noted that the ease of access to courses presented on the website results (as the authors have presented in an earlier publication) from the ease of searching available on the homepage (Hankiewicz and Hankiewicz, 2014, p. 27). In analyzed cases websites' layouts were readable and it was not hard to find where e-learning resources are placed.

5. Conclusion

Public libraries, which fulfill their mission being information, education and self-development centres for communities they operate within and, in the case of pedagogical ones, assisting in teachers education, should benefit from the use of modern technologies. E-learning courses should become an integral part of libraries' services and address their users' needs.

However, results of the study clearly show that usage of e-learning platform is not a common practice among voivodeship public and pedagogical libraries. E-learning platforms are used in half of the analyzed pedagogical libraries. While in the group of pedagogical libraries surveyed, half of them use e-learning platforms to conduct various types of courses, only one in the voivodeship library group does the same. As the platform was created with the support of European Union, it seems that external funding is crucial in the process of creation new e-learning systems. They can come from European Union as well as from central or local government units. Development of online resources should be closely tied with training programmes for librarians covering creation process of such systems. With constantly decreasing costs of implementing e-learning platforms it will also be easier to get funding for this purpose. Even in those libraries that didn't have any e-learning platform, some of the resources could be accessed online, which can lead to conclusion that the awareness of importance of online presence is constantly rising among librarians. In this case, proper training covering creation, implementation and day to day usage of e-learning platforms is of high importance. Recognition of local community needs in regards to access to information, knowledge and culture and ways of fulfilling them should be a large part of such courses. Close collaboration between libraries experienced in the process of e-learning platforms and those which want to introduce such systems would be invaluable in this case. Raising qualifications by librarians will result in the active promotion of library services and activities in the local community. Increasing attractiveness and availability of offered e-learning courses can positively influence perception of libraries as an important place in the process of social education.

Dynamic situation in researched field requires further analysis to check whether awareness regarding usage of e-learning platforms as a tool to build knowledge-based society raises among librarians.

References

Burke, J. (2016). *Neal-Schuman library technology companion: A basic guide for library staff*. 5th ed. Chicago: Neal-Schuman. ISBN 9780838913826.

Hankiewicz, K. (2012). Ocena oferty e-learningowej poznańskich uczelni publicznych. *Zeszyty Naukowe Uniwersytetu Szczecińskiego. Ekonomiczne Problemy Usług*, *88* (703), 156–164.

Hankiewicz, K., Hankiewicz, M. (2014). Użyteczność serwisów internetowych bibliotek jako cecha determinująca sprawność korzystania z usług bibliotecznych. *Zeszyty Naukowe Uniwersytetu Szczecińskiego. Ekonomiczne Problemy Usług*, *113* (vol. 2), 21–30.

Hills, H. (2016). *Individual preferences in e-learning*. Abingdon, Oxon: Routledge. ISBN 9780566084560.

Kozioł, L. (2013). Determinanty rozwoju e-learningu korporacyjnego. *Zeszyty Naukowe Uniwersytetu Przyrodniczo-Humanistycznego w Siedlcach*. Seria: Administracja i Zarządzanie, *98*, 61–72.

Kozioł, M. (2013). Wykorzystanie e-learningu w procesie szkolenia pracowników małych i średnich przedsiębiorstw. *Zeszyty Naukowe Małopolskiej Wyższej Szkoły Ekonomicznej w Tarnowie*, *22* (1), 113–122.

Kurkowska, E. J. (2012). Platformy e-learningowe w działalności dydaktycznej bibliotek publicznych uczelni akademickich. *E-mentor*, *4* (46).

Mhouti, A. E., Erradi, M., Nasseh, A. (2018). Using cloud computing services in e-learning process: Benefits and challenges. *Education and Information Technologies*, *23* (2), 893–909. DOI 10.1007/s10639-017-9642-x.

PBW. (2019). Official website of the Pedagogiczna Biblioteka Wojewódzka im. Komisji Edukacji Narodowej w Warszawie [= Pedagogical Voivodeship Library in Warsaw; online, accessed: 2019-07-12]. Retrieved from: http://www.pbw.waw.pl/.

Plebańska, M., Kula I. (2011). *E-learning. Treści, narzędzia, praktyka*. Warszawa: ALMAMER Szkoła Wyższa. ISBN 9788362644117.

Pollard, E., Hillage, J. (2001). Explaining e-learning, IES Report nr 376. Brighton: The Institute for Employment Studies. ISBN 1851843051.

Tabot, A., Oyibo, K., Hamada, M. (2013). E-learning evolution: Past, present and future. In: M. Hamada (ed.). *E-learning: New technology, applications and future trends* (pp. 1–32). New York: Nova Science Publishers. ISBN 9781626189614.

Tangient, L. L. C. (2010). *Moodle pros and cons* [online, accessed: 2015-04-04]. Retrieved from: http://www.blenderwiki.wikispaces.com/Moodle+Pros+and+Cons.

UCSF Library. (2019). Official website of University of California San Francisco Library [online, accessed: 2019-07-20]. Retrieved from: https://www.library.ucsf.edu/.

Urdan, T. A., Weggen, C. (2000). *Corporate e-learning: Exploring a new frontier* [online, accessed: 2019-07-20]. WR Hambrecht and Co. Retrieved from: http://cclp.mior.ca/Reference%20Shelf/PDF_OISE/Corporate%20e-learning.pdf.

WBPiCAK. (2019). Official website of the Wojewódzka Biblioteka Publiczna i Centrum Animacji Kultury w Poznaniu [= Voivodeship Public Library and Culture Animation Center in Poznań; online, accessed: 2019-07-04]. Retrieved from: http://wbp.poznan.ekursy.eu.

E-learning w działalności polskich bibliotek publicznych

Abstrakt: W artykule scharakteryzowano specyfikę działalności bibliotek publicznych i ich rolę w zakresie edukacji. Przedstawiono również możliwości zastosowania e-learningu w procesie kształcenia, ze szczególnym uwzględnieniem edukacji powszechnej. Zwrócono też uwagę na rosnące znaczenie i wzrost zainteresowania takim sposobem kształcenia. Praca pokazuje możliwości zastosowania e-learningu w nauczaniu ze szczególnym uwzględnieniem edukacji prowadzonej w ramach działalności bibliotek publicznych. Artykuł prezentuje ofertę kursów e-learningowych głównie w wojewódzkich bibliotekach publicznych i wojewódzkich bibliotekach pedagogicznych. Celem analizy było zweryfikowanie zakresu wykorzystania e-learningu przez biblioteki, sprawdzenie ogólnodostępności oferowanych szkoleń oraz łatwości odnalezienia ich w internetowych serwisach bibliotek. Badano ilość oferowanych kursów oraz ich tematykę. Wzięto też pod uwagę, do kogo skierowane były przygotowane kursy. W pracy przedstawiono dotychczasową praktykę, możliwości dalszego rozwoju i propozycje autorów, które opierają się na rosnących możliwościach technologicznych, przy coraz powszechniejszym dostępie do internetu. Przeprowadzone badania pokazują, że korzystanie z platform e-learningowych przez wojewódzkie biblioteki publiczne i pedagogiczne nie jest niestety powszechne. Taka sytuacja może być podyktowana brakiem środków na przygotowanie takiego projektu. Bariera ta powinna jednak tracić na znaczeniu ze względu na malejące koszty wdrożenia platform z jednej strony, jak i rosnące środki wspierające działania bibliotek z drugiej strony. Ponadto presja potencjalnych użytkowników może wpłynąć motywująco na rozwój platform e-learningowych prowadzonych przez biblioteki.

Słowa kluczowe: e-learning, edukacja, biblioteki publiczne, szkolnictwo wyższe