# E-books and new dimension of reading

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ABSTRACT: Technology development contributed to everyday growth of e-books. Access to e-books is provided by editors and distributors of electronic editions, for free or in return for payment. In Serbia there are a couple of editors that are publishing e-books and the increase of digital libraries that provide access to e-books is also notable. E-books can be read on computers, laptops, tablets and smart phones, but e-book readers are the most suitable for longer reading. Easy access, availability 24 hours a day, efficiency in terms of cost and space and other advantages of e-books have contributed to the increase of the reading public.

**KEYWORDS:** digitization, e-book, e-publishing, e-book readers, reading

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### 1 Introduction

During its many centuries of life, book has changed its physical appearing, but not its purpose. It has always served as an instrument of documenting, keeping and transferring knowledge and information. According to UNESCO's definition book is "non-periodical printed publication having 49 or more pages which do not include cover". In Encyclopedia Britannica it is specified that a book is an instrument of communication, whereby the book is observed as a written or printed message of certain length, meant for public usage and recorded on material that is durable enough to provide its easy transfer. <sup>2</sup>

Today, books are mostly present in printed form, but their appearance in digital form is also very common. E-books are mostly used by new generation, but elder

<sup>&</sup>lt;sup>1</sup> Business Dictionary: http://www.businessdictionary.com/definition/book.html, accessed 14 April 2016.

<sup>&</sup>lt;sup>2</sup> Encyclopedia Britannica, accessed 21 March 2016, http://www.britannica.com/EBchecked/topic/73295/book.

users, especially those who are familiar with usage of computers and new IT, show interest in reading e-books too.

Some of the questions that will be discussed in this paper are: how can we have access to e-books, what are the differences in reading electronic and printed forms of books and what are advantages and disadvantages of e-books compared to the printed editions. Besides that, themes such as e-publishing and digital libraries in Serbia and over the world will be discussed, as well as devices for reading e-books and changes made in the reading process itself.

## 2 Term and emergence of e-books

Electronic books include monograph publications that exist at the same time on paper and in digital form or only in digital form. Development of technology contributed to everyday increase of electronic books. E-books are mostly distributed on compact disks or over the web, and they could be read on computers, mobile devices or so-called e-book readers. The first idea that followed development of e-books was that readers could leave comments on text and communicate with authors (Васильевић, 2006). Though, as the author of above-mentioned paper quotes, the idea was not adopted, e-books continued to exist having the same function as printed books — as medium for transfer of knowledge and information, but now in a faster and easier way. The development of e-books changed reading process itself and positive aspects of those changes were recognized in literature and confirmed in practice, which caused increase of e-books popularity.

In the English language there are two terms related to e-books that explain their emergence: "born-digital" and "made-digital". Term "born-digital" is used for books that are originally made in digital form. In March 2000 the first book in e-form only was published: novel "Riding the Bullet" by American author Stephen King (Трифуновић, 2005). The second term, "made-digital", refers to books which are converted from printed to electronic form. Digitization or "converting a book from printed into machine-readable format, using special hardware and software solutions" (Вранеш and Марковић, 2008) involves a complex set of tasks that include material selection, digitization of printed publication, processing and marking text so it could be searchable and preserving book in a medium or on server in a specific format. Common formats for electronic documents like ASCII, HTML and PDF can also be used for e-books, but there are specialized e-book formats such as ePub, Mobi, Nook, etc.

## 3 How to get e-books?

## 3.1 Digital libraries and publishing of electronic books

Books in digital form can be found as a part of digitization project, in digital libraries around the world. Digital library is a collection of digital objects of certified quality that are, through using of new technologies, made or collected and organized according to international principles and made available for users (IFLA/UNESCO, 2010). Considerable number of publications in digital libraries are in open access which implies that "every user who has right of access to the Internet has right to read, download, print and use digital content that is in open access, with only obligation to quote it properly" (Филипи-Матутиновић, 2013). It is practice around the world that author agrees to open access to his work by signing license. OA (Open Access) databases allow free access to full text e-books, and some of them are: Project Gutenberg, Google Books, Europeana, Open Library, Internet Archive, Digital Public Library of America, Daily Lit, Classic Reader and National Academic Press.

Publishers and distributors of electronic editions also provide access to e-books, for free or in return for payment. E-books can be purchased through subscription or through license, whether it is one book or a collection. The most known commercial providers are: Questia, netLibrary, ebrary, Oxford Reference Online, Springer, Elsevier, ScienceDirect, EBSCO and Emerald.

The level of availability and terms of access depend on providers and copyright. Publishing electronic books copyright has to be respected, as well as in the case of classic printed edition. Companies that are specialized in publishing e-books often publish editions that are no longer under copyright. If that is not the case, publishing e-books is defined by copyright law of country in which publication is being published. Most countries protect foreign authors and copyright holders, if they are from a country which is signatory of an international agreement in copyright issue. One of such agreements is Berne Convention, global arrangement about copyright protection on the Internet, according to which national laws of each country provide an automatic protection of copyright works, pursuant to the law of the contracting party. Serbia is one of the contracting parties of the Berne Convention, and further information on copyright in Serbia can be found in Copyright and medium-sized law.

#### 3.2 E-books worldwide

The first project that provided access to electronic books was Project Gutenberg, with mission to encourage creation and development of electronic books.<sup>3</sup> Michael

<sup>&</sup>lt;sup>3</sup> Project Gutenberg: http://www.gutenberg.org/, accessed 23 March 2016.

Hart was initiator of this project and in 1971 he started to digitize texts that were no longer under copyright and to upload it on servers and later on the Internet. Over time, number of digitized books increased and now there are more than 50,000 digitized books on project's website. All books that are included into Project Gutenberg are in full text and completely searchable. On the home page of Project Gutenberg's website is stated that usage of digitized books is in accordance with the Copyright law of the United States and users from other countries are obliged to check copyright law in their own country before the download and distribution of books.

Project of digitization of European cultural heritage was named Europeana<sup>4</sup> and was launched with an idea to provide free access to digitized content, protection of cultural heritage and exchange of ideas and information. Portal Europeana provides access to 24 million digital documents, among which are electronic books. Numbers of partners and amount of accessible contents increase every day.

Google books<sup>5</sup> provide searching and access to books in electronic form. Visibility of obtained search result and its availability depends on the copyright. If copyright has expired or given to company Google books and the book is uploaded as a public good, it is possible to download the whole book. In other cases, authors or copyright holders define the level of book availability. Within this project there is service Google Books Library Project which as a search result gives bibliographic data and if the book is under copyright links to internet bookstores where book can be bought and libraries where it can be lent.

Open Library<sup>6</sup> is a database that contains links to more than million e-books. Certain number of books is in open access, and there is also an option for lending books from the online library.

Databases that were mentioned contain various electronic books, so besides works of classic and modern literature books from different scientific fields can be found. In that way, by putting digital content online, users from all over the world have quick and easy access to literature that they need for study, research or reading for fun.

#### 3.3 E-books in Serbia

Today a great number of Serbian institutions of culture and education have their own digital library or digital repository online and provide access to books in electronic form (IFLA/UNESCO, 2010). These databases are mostly formed by digitization of library's collections or by putting electronic editions of this institution online and can be accessed free of charge.

<sup>&</sup>lt;sup>4</sup> Europeana, http://www.europeana.eu/portal/, accessed 14 April 2016.

<sup>&</sup>lt;sup>5</sup> Google books, https://books.google.com/, accessed 11 April 2016.

<sup>&</sup>lt;sup>6</sup> Open Library, https://openlibrary.org/, accessed 11 April 2016.

The first undertaking launched with aim to provide access to books in digital form in Serbia was Project Rastko, as a Serbian version of Project Gutenberg. Project Rastko is a sort of an online library formed of books from scientific fields and art that belong to Serbian or similar cultures, with the aim to make cultural heritage accessible to national and international public. On website of the project is stated that this project is "non-profit, non-governmental and voluntary and is realized through voluntary activity of individuals and institutions that are engaged in research, development and preservation of Serbian culture" and also that digitization of books was conducted pursuant to copyright regulations. Idea of project establishment originated in 1994 and in September 1997 project started with public work. Digital library Rastko today contains a large number of books in electronic form, in open access and with fully searchable text. It is stated on the project's website that extent of usage of author's content is determined by permits of copyright holders, defined by written agreement compatible with national and international copyright law regulations. Over time, Project Rastko has been expanded and today it includes other countries that digitize and put online electronic publications that refer to Serbia or Serbian culture or are directly related to it. In that way the whole project is enriched and popularized outside of Serbia. As a part of the project there are: Project Rastko Timisoara: the library of Serbian culture in Romania, Project Rastko Budapest-Szentendre: the library of culture and tradition of Serbs in Hungary. Project Rastko Kiev-Lviv: the library of Ukrainian-Serbian cultural relations. Project Rastko Bulgaria: the library of Bulgarian-Serbian cultural relationship, and others.

The Digital library of Faculty of Philology, University in Belgrade,<sup>8</sup> has been created by digitizing Faculty's editions, and currently consists of more than 107,000 pages of digitized material of monograph and periodical publications. Library was formed as support of distance learning and is intended for students, teachers and researches and its content is searchable by author, title, professional and subject classification and by every word in text.

The Digital National library of Serbia<sup>9</sup> consists of a few books collections, periodicals, photo documents and other materials from the fund of the National library of Serbia, with the aim to provide open access to knowledge and information. Ser-

<sup>&</sup>lt;sup>7</sup> Project Rastko: the library of Serbian culture, http://www.rastko.rs, accessed 22 March 2016.

<sup>&</sup>lt;sup>8</sup> Digital library of the Faculty of Philology, http://www.fil.bg.ac.rs/lang/sr/biblioteke/digitalna-biblioteka/, accessed 21 March 2016.

<sup>&</sup>lt;sup>9</sup> Digital National Library of Serbia, http://www.digitalna.nb.rs/, accessed 21 March 2016.

bian children's digital library is a part of this library, with 127 books for children that were digitized as part of the project International children's digital library. <sup>10</sup>

Project Anthology of Serbian literature<sup>11</sup> has the aim to provide easy access to the most famous works of Serbian literature for all interested readers around the word. All books were digitized according to the copyright regulations. Book selection was conducted by the Faculty of Teacher Training and digitized by Microsoft Center for Software Development in Belgrade. Among 130 free accessible books there are works of Radoje Domanović, Laza Kostić, Desanka Maksimović, Jovan Sterija Popović and other Serbian authors. Thanks to the electronic version of these titles which are used as school reading faster and simultaneous access to the publication is provided for a large number of users and the problem of insufficient number of copies of the book is solved.

Access to electronic contents provided by some of the commercial providers in Serbia is enabled by Serbian Library Consortium for Coordinated Acquisition (KoBSON) that was formed in 2002 as one of the first initiatives for providing access to scientific information in digital form. <sup>12</sup> KoBSON was initially focused on purchase of electronic periodicals and later introduced the possibility of access to books in electronic form. Access to electronic publication via KoBSON has its restrictions: it can be only accessed through academic network, from institutions that were founded by the Government of Republic of Serbia and that are under the jurisdiction of the Ministry of Culture or, in particular circumstances, from home. In 2016 thanks to KoBSON users from Serbia can access almost 160,000 electronic books from different scientific areas provided by Springer, EBSCO eBook, Google Books, Pub Med, ScienceDirect, Cleveland Medicine Index, DOAB and Hein on Line.

Although the e-book publishing market in Serbia is still not developed enough, there is some progress concerning that issue so today we have a couple of publishers that publish books in electronic form. One of the first publishers of e-books only in Serbia was NM Libris, founded in 2013. It functioned as follows: part of the books was accessible for free to everybody, and by creating a user account and paying membership fee user was able to access and download all the books that were put on the website. Besides that, users could create and organize their own library. At present, website of this publishing house is out of function for unknown reasons.

The publishing house Booka joined to the Serbian publishers of e-books with two books: "Below deck" by Vladimir Arsenijević and "39 songs" by Nebojša Kri-

International Children's Digital Library, http://en.childrenslibrary.org/, accessed 22 April 2016.

Project Anthology of Serbian Literature, http://www.antologijasrpskeknjizevnosti. rs/, accessed 23 March 2016.

<sup>&</sup>lt;sup>12</sup> Serbian Library Consortium for Coordinated Acquisition, http://kobson.nb.rs/kobson/, accessed 21 March 2016.

vokuća, which are uploaded on couple of websites specialized for selling e-books. Booka announced publishing of other books in digital form. <sup>13</sup> On the 15<sup>th</sup> of May 2014 publisher Arhipelag announced launching of e-publishing in series e-Arhipelag, saying that book is "a text that we read and it is much more important than form in which that text comes to the readers". <sup>14</sup> For now, eight e-books have been published and it was planned to keep publishing other titles. Company Media Art Content DOO from Novi Sad also publishes e-books that can be bought via international commercial distributors. <sup>15</sup>

Besides mentioned ones, there are other publishers in Serbia that expand its publishing from printed to electronic editions; however, e-publishing in Serbia is not fully established. For example, an attempt of search of co-operative catalogue of Virtual library of Serbia using basic and advanced search, looking for information about books published in digital form is not applicable. It is not possible to collect needed data that way, because in basic and advanced search in Virtual library of Serbia catalogue there is no option of searching only books in e-form. The only possibility is the search within expert search during which is needed to make special complex query. By searching co-operative catalogue with a query EA="\*"/mon we get 10.648 books in e-form, among which publications in foreign languages, PhD theses and digitized old books. Trying to get information about e-publishing in Serbia for past 15 years, we may narrow the search and use query (EA="\*"/mon and LA=(scc or srp) and PY=20\*) not TI=doktorsk\*. In that way we get 1,690 results, i.e. monographs in electronic form published in Serbian language from 2,000 until now. Results of this search include, besides e-books, catalogues, guidebooks and other documents in e-form, and links given with every result lead to publications that are on web. By this search it is possible to gain insight into state of publishing activities in Serbia and monitor its development.

## 4 Devices for reading e-books

E-books have some requirements concerning hardware and software in order to be used. In paper "Electronic publications and libraries – an overview" while speaking of e-books author states that there is "always present some kind of resistance to this kind of publications, as the technology is still not at the level that could

Publishing House Booka, http://www.booka.in/knjige/ebooks, accessed 21 March 2016.

Publishing House Arhipelag, http://www.arhipelag.rs/arhipelag-magazin/gojko-bozovic-magazin-3/, accessed 22 March 2016.

Media Art Content LTD, http://www.elektronske-knjige.org/, accessed 21 March 2016.

provide longer and more comfortable reading" (Васильевић, 2006). With technology improvement, situation has changed. E-books can be read on computers, laptops, tablets or smart phones and those devices can be used for shorter reading. For longer reading it is recommended to use devices that are at the first place conceived to be readers of electronic books. With increasingly advanced electronic readers, reading e-books is not very different from reading printed edition. Those devices provide keeping a large number of books, which can be carried out and shared with others in every moment. E-books and readers are mostly used by researchers and scientific workers, who have become aware of advantages of this kind of reading and research work (Nehring, 2013). For the people who spend most of their time travelling, it is more convenient to put books they need in an e-book reader than to carry around several printed books.

Depending on manufacturers and models, e-book readers have different characteristics. There are simple models that allow transfer of e-books from computers. forming a personal library, searching text and making notes. E-book readers are connected to specialized stores via Internet, in which users can buy books, usually for a lower price that printed version. Besides simple ones, there are advanced ebook readers that have characteristics like tablets or smart phones. These kinds of devices have additional applications among which some are not intended for reading (i.e. application for listening radio or playing games). It has been shown in practice that these advanced devices are not the best choice for reading e-books because, focusing on additional characteristics, they have lost quality when it comes to what they should be in the first place – medium that will provide reading book in e-form as simple as possible. Devices that users have rated as the most suitable for longer reading support the so-called e-ink technology. This technology gives the impression of reading from paper, so during reading eyes are not getting tired as it happens while reading from monitor or tablet. Also, this screen allows reading in the dark and in daylight, with anti-reflective coating and anti-flicker technology. Advantage of the e-ink technology is better battery capacity, which is not the case with devices that do not use this technology. There are devices with regular screen and those with touch screen display.

Today e-book readers have various forms and characteristics, so users can choose the most suitable one among diverse models. Regarding the supply of devices for e-books reading in Serbia, certain models with different specifications and various prices can be found, but the offer is far from diverse. The other possibility is buying an e-book reader in a store abroad. As an alternative to purchase of e-book reader there is a possibility of reading from computer, tablet or a smart phone. There are a large number of applications that provide reading from mentioned devices and also

make manipulation with books and text among them possible. <sup>16</sup> These applications make reading from a computer easier, but for the most comfortable reading of books in electronic form e-book reader is more suitable.

## 5 Advantages and disadvantages of e-books and the new approach to reading

Scientists and researchers seek for a quick and easy access to information and e-books provide exactly that. New generations expect to find all needed literature online (Adema, 2012). Accessibility 24 hours a day is one of the advantages of electronic editions opposite to the printed ones. Publications in electronic form that are uploaded online become immediately available to everybody. Unlimited number of users can read one e-book at the same time, not having to be physically present in a library. In that way, problem of not having enough number of copies of a book is solved.

Users choose to read e-books because these editions do not need a lot of storage place. With appearance of mobile devices for reading, or so-called e-book readers, reading gains new dimension. Now it is possible to take a large amount of books with you. Besides, the text in e-form is searchable, <sup>17</sup> letter size and font can be edited according to personal taste and hyperlinks can lead from one page to another (Трифуновић, 2005). Text marks can be made in e-books and some of e-book readers have built-in electronic dictionaries.

E-books can be quickly exchanged, copied and transferred from one device to another. One of the advantages of e-books is its economy and environmental friend-liness, as they do not use paper at all. Digitization of printed editions provides preservation and protection of old and rare books and other publications from frequent and intensive usage. Besides, electronic editions of old and rare books sometimes are the only way to present national and international cultural heritage to public.

Disadvantages attributed to e-books refer more to devices for e-books reading, than to e-books themselves. One of those disadvantages is the inability of comfortable reading during longer period of time. Reading books from computer is difficult because of disturbing factors such as other running applications, windows and similar things that draw attention from reading process itself (Pettigrew, 2015). By moving from computer monitor to e-book readers, where disturbing factors are removed or at least reduced, these disadvantages are slowly disappearing.

 $<sup>\</sup>overline{^{16}}$  Some of these applications are: Wattpad, Amazon Kindle, FBReader and Kobo eBooks.

<sup>&</sup>lt;sup>17</sup> The most used format for e-books encoding that enables the full-text search is the international format TEI (Text Encoding Initiative).

Depending on manufacturers and models e-book readers support only some of the formats and that can be considered as a limitation for using e-books. However, various applications that read different e-book formats can be found on the Internet, so this disadvantage is practically insignificant. Applications such as Calibre<sup>18</sup> and Sumatra PDF<sup>19</sup> that are very simple for use and possibility of converting e-book in different formats help users to create their own digital library and manipulate with books in it. Batteries for e-book readers have a large capacity so they can be used for many hours.

Appearance and usage of e-books influenced reading process itself. Many authors claim that e-books can be effectively used for promotion of reading (Weber and Cavanaugh, 2006) and information literacy for children of school age (Schiemann, 2016). Thanks to the Internet the books are nowadays available more than ever and it is considered that this can contribute to the "production" of readers who will read different types of publications (Pettigrew, 2015) and the increase of overall reading public.

Although e-books were originally designed as a direct link between authors and readers, they contributed to the development of other types of interaction. Innovations in technology helped the development of so-called interactive electronic books that provide high level of interaction among user, text in electronic form and digital environment (Bozkurt and Bozkaya, 2015). In addition to creation notes in text, e-book readers provide the opportunity of fast content sharing through the Internet and social networks, exchange of thoughts and ideas and reflections on it. That is how immediate exchange of information on the read text is accomplished, and thanks to the following the content created by others the readers are allowed to find арргоргiate literature for reading and research in the simplest way possible (Софронијевић, 2015).

Books in electronic form contributed to the connection between reader and text that is being read. Authors define electronic books as "adjustable" and as its characteristics they state possibility of text size adjustment, underlining text, writing notes, interactive dictionaries and software for reading out loud. <sup>20</sup> Large memory of e-book readers provides users the possibility to take their own library always with them, instead of being limited to only couple of books that they can use at every moment. Thanks to the advanced technology that devices for reading e-books use,

<sup>&</sup>lt;sup>18</sup> Calibre e-book menagement: http://calibre-ebook.com/, accessed 22 March 2016.

<sup>&</sup>lt;sup>19</sup> Sumatra PDF, http://www.sumatrapdfreader.org/free-pdf-reader.html, accessed 22 March 2016.

<sup>&</sup>lt;sup>20</sup> Software for reading e-books out loud are adjusted to English language. Some software also allows reading out loud in Serbian, but it is still not at satisfactory level: words are not clearly pronounced and it can hardly be followed.

they have become practical for everyday reading, because they can be used in various conditions.

### 6 Conclusion

Given the fact that we live in a time where technology is present in almost every part of life, its influence in activities such as reading was expected. Digital environment contributed to the change in reading process by enabling connections in networks of knowledge and information, reciprocal communication among readers and closer relationship with text that is being read. Growth of e-books, its acceptable price, easier and simpler access and more advanced electronic devices for reading, will contribute to its ever-bigger distribution and usage. Advantages such as simpler access, 24 hours a day availability and efficiency in terms of cost and space, will influence the growth of number of people who read e-books, which will also increase growth of reading public altogether.

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