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The Internet Book Circulation Model – Preliminary Assumptions and Research Methodology*

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ABSTRACT: The category of book circulation has been adopted for the needs of book science and information science. Unfortunately, attempts to create book circulation focusing on presenting the circulation of new digital forms of books have not been undertaken. Due to technological convergence, the Internet has begun to absorb areas of communication previously reserved for older media. This phenomenon also includes books and their circulation. The purpose of this article is to present a justification for the need of a conceptual model of internet book circulation. In other words, article presents preliminary assumptions and research methodology of a project aimed at creating in the future a model of digital-network book circulation, the one that is taking place on the Internet and, more precisely, on the hypertext digital-network space of the World Wide Web.

KEYWORDS: books circulation, digital book culture, Internet, World Wide Web.

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Introduction

In the twenty-first century books are involved in the context of the digital-network environment¹. The most popular service on the Internet is the World Wide Web, which means that most Internet users use it via the WWW. So today books circulate socially on the Web and in this Web environment the whole model of internet book circulation takes place. The Internet, thanks to technological convergence, is fulfilling communication areas previously reserved for former media, such as books, and includes their circulation. The integration of books and the Internet, and in particular the World Wide Web, has resulted in a number of changes at each stage of book circulation.

The rules of writing and reading have changed; a text intended for materialization in the form of a book can be prepared jointly through the network (cf. collaborative writing); the notion of authorship has expanded; new digital forms of books have been created; in the process of producing books, new achievements in digital and network technologies are being used; at the same time, the process of producing books has speeded up; the model of bibliological communication² has been supplemented by new models such as digital bibliological communication and network bibliological communication³. New actors have appeared in bibliological communication, such as institutions whose goal is to publicize books by their own authors and without technical editors (cf. phenomenon of self-publishing). In some cases some actors have been excluded, like traditional publishers. Designers have begun to create and innovate e-book readers and tablets in order to better fulfill the functions formerly reserved for paper books by improving display parameters. Self-publishing phenomenon have become widespread. New

¹ The term *digital-network environment* points to the internet network, meaning the Internet. I also use the *digital-network* expression in order to point at digital sources available in the internet network.

² Cf. J.W. Zawisza, *Propozycja schematu komunikacji bibliologicznej*, "Studia o Książce" 1980, iss. 10, pp. 39–58.

³ Cf. S. D. Kotuła, *Komunikacja bibliologiczna wobec World Wide Web*, Lublin 2013; see also S. D. Kotuła, *Bibliological communication and the World Wide Web*, "Zeszyty Prasoznawcze" 2014, vol. 57, no. 4, pp. 661–677.

book distribution channels have appeared which at the same time provide a much faster way to distribute books, for example by file-sharing services, digital libraries and digital repositories, and applications for purchasing electronic books directly through e-book readers. The production and distribution costs of books has decreased. The mass digitization of literature (writings) has begun. And finally, the phenomenon of grassroots and informal digitization has been developed.

Integration of books with the Web has led to the emergence of the phenomenon of the digital book culture⁴, which is another emanation of book culture following the manuscript era and print era, but this time it is in a digital-network environment. Among the phenomena that make up digital book culture, it is necessary to indicate the convergence of the Internet and Web with books as well as the legacy of the cultural heritage of books in the Web environment. In other words, the central issue are books in the form of electronic books and digitized books and the processes associated with them. All this is taking place in the digital-network environment, and it constitutes a model for the Web communication. I mean the use of the page formula and the text in the form of hypertext⁵. The World Wide Web consists of pages is in itself a symbol of the digital book culture. It was developed based on the book culture, and applies the way of presenting information in the form of pages, meaning flat rectangular surfaces. Thereby it refers quite clearly to the legacy of book culture. Web pages are rich in various types of contents, messages, texts (which in fact are hypertexts), containing letters as well as multimedia messages.

Purpose of the work and hypotheses

In book science, attempts were made by Jerzy W. Zawisza and Robert Darnton to create a model of the circulation of books for traditional paper books. The communique, meaning the message in these cases, was

⁴ A detailed description of the phenomenon of digital book culture was presented in the article: S. D. Kotuła, *Digital book culture*, "Toruńskie Studia Bibliologiczne" 2015, no. 1, pp. 107–122.

⁵ Cf. S. D. Kotuła, *Dziedzictwo kultury książki a środowisko cyfrowe World Wide Web*, "Przegląd Biblioteczny" 2013, vol. 81, no. 1, s. 7–9.



a manuscript and/or printed book. Today, however, books are also created and distributed in digital forms, for example as electronic books. Placing electronic books into social circulation is different than putting them into social circulation in the traditional way. The whole process of preparing a book's contents for publication in the form of a paper book is quite different for the publication in the form of an electronic book. A number of different applications that can facilitate this process are commercially available. There are already special entities that, through the Internet, facilitate the implementation of the editorial process. Such books are not designed to be printed, but written to be read on display screens and computer monitors, tablets and e-book readers.

These digital books exist in the form of appropriate file formats, which have some limitations, for example some file formats are designed for reading on only certain devices. They include risks, such as the difficulty of reading the text in the future (I mean the technical maladjustment), and the rules of distribution, meaning illegal copying and distribution. Due to the fact that the current market provides a whole range of different e-book readers and tablets, the method of distributing these types of books is also different. Some books are included directly with the mobile device, while others are purchased via the Internet from bookstores and publishers on Web sites or borrowed from dedicated platforms (for example Legimi). The production costs of printed books are also different from that of e-books.

These phenomena result in the need of a model of book circulation describing the mentioned phenomenon. In the article I only present preliminary assumptions and research methodology aimed at creating in the future that kind of a model. It will be a model of the social circulation of books that takes place in a network environment, meaning the Internet, and more specifically in the hypertext environment of the digital network of the World Wide Web.

For the needs of bibliography and information science, we have adopted and accepted the field of research of the book circulation, and since no other attempts to construct book circulation models covering digital forms of books have been undertaken so far, it seems reasonable to undertake this task. This allows us to make the following hypotheses:



Hypothesis I: book circulation takes place on the Internet, which is different from traditional printed and manuscript book circulation and governed by its own rights; it consists of its own relevant elements, processes and entities that are not present in this arrangement outside of the Internet.

Hypothesis II: it is possible to create a model of internet book circulation by drawing on models showing the circulation of traditionally printed paper books and manuscripts.

Hypothesis III: to create the internet book circulation model, we can use the model of traditionally printed books and manuscripts circulation functioning in the discourse of book history. This includes the area of bibliography and information science models of digital bibliological communication and network bibliological communication as well as the models of the digital and network text cycle.

Theoretical background

So far, an internet book circulation model has not been developed. However, currently there are functioning models showing circulation of traditional printed books and manuscripts. One of the first models was created in 1980 by a book scientist, Jerzy W. Zawisza⁶. His proposal illustrates this communication using the statements of the author, the creation of a work, its materialization and reproduction in the scriptorium or printing house, the distribution of books and its use by readers. Therefore, it is a universal model since it concerns both manuscripts and printed books. In addition, it is open, which means that one can add other elements that can be necessary today. However, according to Zawisza, too many additional elements can impact model's transparency.

Another model was created in 1982 by the book historian Robert Darnton⁷. The model was an attempt to show the life cycle of a book.

⁶ Cf. J. W. Zawisza, *Propozycja schematu komunikacji...*

⁷ Cf. R. Darnton, *What is the history of books?*, "Daedalus" 1982, Summer, pp. 65–82; see also R. Darnton, *The case for books*, New York 2009, p. 182.



The model consists of such elements as “author”, “publisher”, “printers”, “suppliers”, “shippers”, “bookseller”, “readers”, “binder”. A very important part of such social communication is the context in which communication occurs. The context occupies a central position in this model. Thus, a key element of the presented scheme set in the center of the model is the economic and social situation. In other words, communication through books is influenced by social, economic, political and intellectual factors, i.e. the historical moment. At present how, I suppose, among these factors information technologies appeared. This entire act of communication takes place at a specific moment in history and can use all available forms of communication.

Another book-centric model was proposed in the early 90s by book historians Thomas R. Adams and Nicolas Barker⁸. In their view, the book publishing process involves four entities, i.e. the author, sponsor, manufacturer and distributor. They all have to fulfill certain tasks, including: preparing the text and putting it into the appropriate form; disseminating information about the text; obtaining financial returns on the investment; and ensuring the survival of this text by making many copies of it. The decision to publish a book is one of the first steps in creating a new book, and this decision is often influenced by external factors not necessarily related to the text.

In 2013, another model based on Zawisza’s model was presented, concerning digital bibliological communication⁹. Bibliological communication is the process of placing a book into social circulation, and the book is understood as a tool of communication, a method of recording information, a way to present information and a method of locating a literary or scientific work. Digital bibliological communication is concerned with the use of digital information technologies to achieve the processes of bibliological communication. It primarily concerns the stage of book production when a work is put into an electronic form. One should notice the fact that the process of preparing such a publication is identical in many aspects to that of a printed book, meaning that selected enti-

⁸ Cf. T. R. Adams, N. Barker, *A new model for the study of the book*. In: *A potencie of life. Books in society*, ed. N. Barker, London 1993, pp. 5–43.

⁹ Cf. S. D. Kotuła, *Komunikacja bibliologiczna wobec...*; S. D. Kotuła, *Bibliological communication and...*



ties engaged in bibliological communication evaluate and correct the work. The text is checked in terms of language and contents, and then it is given an appropriate form that ensures its readability. However, the method of materializing the text is different. An electronic book is placed onto digital media and/or the network space. Such an object can be promoted outside the network, for example into library circulation and/or through the Internet on websites promoting e-books and social media where people exchange opinions about them. Electronic books are also specific according to their form, for example, they can be dedicated to specific book readers. The reception of electronic books requires digital information technologies i.e. specific software and hardware. In this case, an e-book is a medium.

In the second variant of digital bibliological communication, a book (more precisely, a digitized copy of a book) is a medium, and the essence of its digital bibliological communication is to use information technologies to implement and intensify bibliological processes. Books that are digitized include those that were transferred into the public domain and whose authors agreed to transfer their text into digital form. Sometimes this is done in an unauthorized way. Distribution of books by digitizing them is extremely common if we take into account the number of digitalization projects as well as the scale of illegal and informal grassroots digitization. This results in putting digitized books into circulation in an unauthorized way.

Information technologies are also used at the reception stage. If a book is available in a digital form, it is recorded on appropriate digital media. If a book is in an electronic form (e-book) or digitized form (digitized book), it is available on the Internet. Every book that is available in a digital form can be published on the Internet. Digitized books, primarily those placed on the Internet, are ready for immediate use. Any book that is available on the Internet is globally accessible and this affects its easy dissemination, therefore, this book is available instantly through the network. However, in the case of books that still function outside of the network, the consumer stage is not possible with the use of network technologies, but it is still possible to obtain it with the use of digital technologies. The fact of providing information about a book via the Internet increases a book's consumption, since network services enable a larger number of potential readers to obtain information about a book.



However, if we take into account a book available in the network, it is worth to notice that every book in this context has a greater chance to participate in the communication, thanks to appropriate information technologies. Network technologies may bring books closer to Internet users, showing some of its pages, paragraphs, sentences or even words. Moreover, information technologies allow associating a book with other books similar to each other in some ways. Information technologies, be they digital and/or network, constitute one of the areas of digital bibliological communication. The key aspect of this type of communication is to strengthen bibliological processes with the use of different information technologies.

In addition, there are researchers who engage certain aspects of above mentioned phenomena, and here we can point out models created by the book historian Adriaan van der Weel. He revised Darnton's concept, and thus drew attention to the role of the Internet and Internet Service Providers, as well as the self-publishing process in the circulation of books¹⁰. Another was a model made by media and e-book specialist Terje Hillesund who focused on digital text cycles¹¹.

In Polish and English scientific literature in the field of book science, activity in developing models embracing internet book circulation, meaning the internet life of digital forms of books, is not appearing. Models made by Zawisza, Darnton, Adams and Barker were dedicated to the discourse on book history, including manuscripts and printed books. With the emergence of new actors in the 90s, i.e. information technologies such as the WWW, which began to take part in book circulation or rather new digital forms of books, researchers did not make attempts to submit proposals for a relevant model. The complexity of the Internet and hypertexts on the World Wide Web significantly impedes constructing such models. In addition, the fact that the digital environment is based on binary codes resulted in focusing on digital texts. Researchers

¹⁰ Cf. A. Van der Weel, *The communications circuit revised* [online] [access: July 31, 2016]. Available on the Internet: <http://www.let.leidenuniv.nl/English/B&P/Eltext/CCRev.html>.

¹¹ Cf. T. Hillesund, *Reading books in the digital age subsequent to Amazon, Google and the long tail*. "First Monday" [online]. 2007, Vol. 12, no. 9 [access: July 31, 2016]. Available in Internet: <http://firstmonday.org/ojs/index.php/fm/article/view/2012/1887>.

started to present models of the functioning of digital texts in the Internet environment rather than digital books containing digital texts.

The rationale for undertaking this research problem is that this project fills the breach in the theory, helping to enrich and expand the field of research on book science.

Research methodology

Analyzing the models listed above, I will choose the elements, entities, actors, processes and vectors that are currently being used in internet book circulation. Furthermore, I will enrich the proposed model with the results of the empirical research conducted on the Internet from 2014 until the end of 2015 in terms of the social phases of book circulation in the Internet environment. I will also take into account modern information technologies and trends determining and influencing the course of their circulation.

The models that I'm going to use were created by applying different research perspectives. Each of these perspectives draws attention to various aspects of research on books, but generally speaking, the subject of research are books. This particularly includes the processes of writing a text (intended for materialization in the form of a book), the production and dissemination of books and their reception (reading, acceptance, use). A book is a result of the bibliological process of production (publishing), and this includes the social impact of a book, which is a bibliological work (the functional method, bibliological-functional). Thus, I will make an attempt to integrate these perspectives into a single model showing the internet life of books. Indeed, it seems that only the synergetic approach through this specific circulation can take into account all the factors, vectors, processes and entities or actors that actually allow it to participate in this circulation.

After the manuscript and typography eras, writings have now moved to the digital-network environment¹². The digital transmission

¹² Cf. K. Migoń, *Uniwersum piśmiennictwa, jego właściwości, granice i sposoby istnienia*. In: *Uniwersum piśmiennictwa wobec komunikacji elektronicznej*, ed. K. Migoń, M. Skalska-Złat, Wrocław 2009, p. 19.



of texts is another emanation of the history of books, hence, in book science and information science, we must reflect on the need to identify and characterize the ways in which digital books reach the audience. We have to identify how the entire process of their digital-network social circulation is proceeding.

Conclusions

Each year rises a number of digitization initiatives focused on transforming humanity's written heritage into digital forms, while at the same time ensuring that anybody can have access to digital versions of those books via the Internet. Thus, large quantities of digitized books circulate through the Internet. On the other hand, year by year, it seems that more and more electronic books are being published. This leads to an increase of the promotional and advertising campaign aimed at promoting books in electronic form. Special e-book readers for electronic books and tablets promote books and reading in general. The consequences of these phenomena are: a rapidly changing book market (including the electronic book market), and the evolution of the forms of books. The latter is causing changes in methods of book distribution and the distribution of new forms of books. In the light of the increasing range of activities carried out on books in the Internet, it seems necessary to present proposals for appropriating the model that explains these and other phenomena, entities and processes in the new model according to the current state of matters.

The phenomenon of books should be analyzed primarily in terms of their functionality, including communicability. Books are used in communication in order to enhance it. The Internet, which, incidentally, was designed in the spirit of the book culture, meaning a culture based on printed books and the processes related to book circulation, aims to improve this communication¹³. This model will help us to show what the life of a book looks like in the online environment, the kinds of actors taking part in its circulation, and finally, the phases and processes book circulating on the Internet undergoes.

¹³ Cf. S. D. Kotuła, *Dziedzictwo kultury książki...*, pp. 5–18.

Books are vehicles of culture as well as the foundation of civilized societies. Without books, social experiences are fleeting. Books help build lasting social systems. Today, the burden of communication through books is beginning to move increasingly onto the Internet, which raises a number of risks. For example, electronic book carriers are not durable and it is easy to remove their contents. This also creates new opportunities, like the phenomenon of the Internet self-publishing of books that for financial reasons cannot be published in the traditional model. Recognition of the specificity of the internet life of books, the processes taking place and executed on the Internet and the entities involved in this allows us to study the modern history of book circulation.

The model may also be found useful in library activities. Thanks to it, among others, we can point to: digital objects, which can be considered to be books; the ways these books circulate on the Internet; entities that bring them into circulation; the ways and paths through which these books are put into circulation; information technologies used in the implementation of processes involved in their circulation; and the ways in which books reach recipients.

In my opinion, the usefulness of internet book circulation is so obvious that this model allows us to solve a number of scientific problems. Creating the internet book circulation model can probably help us to define a new field of research in book science and information science (which has been presently overlooked in scientific reflection). It can introduce a new theoretical perspective for scientific discussion. It also can indicate and describe the components that make it up, its entities and processes. Besides, it can indicate what the object of this circulation is, either an electronic book, a digitized book, a networked book and possibly other new forms of digital books. It also can explain what determines the nature of their circulation and which entities and kinds of actors are key drivers affecting internet book circulation. It can show which area of the Internet is involved in this circulation and answer the question of who the audience of internet book circulation is and points to Internet users. It can give an explanation of the channels and ways books circulate on the Internet and finally, it can explain what quality control mechanisms are used and the censorship applied to internet book circulation.



Thanks to the internet book circulation model, we can probably show the paths books take to move between the entities involved in their circulation. This model can help us to understand the essence of the course and the essence of the processes associated with it, as well as improve research in the field of “the book online”. Moreover, the model can probably be useful for studying the modern history of the circulation of books.

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The Internet Book Circulation Model – Preliminary Assumptions and Research Methodology [Praca nad modelem internetowego obiegu książki]

STRESZCZENIE: Bibliologia i informatologia przyjęła do swojego repertuaru badawczego kategorię obiegu książki. Nie podejmuje się jednak badań obejmujących i/lub skoncentrowanych na przedstawianiu obiegu książek w postaci cyfrowej. Pojawienie się w krajobrazie mediów Internetu doprowadziło do tego, że – na mocy konwergencji technologicznej – obszary (kanały) komunikacyjne wcześniej zarezerwowane dla dawnych mediów zaczęły być wchłaniane przez Internet. Zjawisko to nie ominęło również książki i jej obiegu. Celem niniejszego artykułu jest uzasadnienie konieczności stworzenia w przyszłości konceptualnego modelu internetowego obiegu książki. Innymi słowy, modelu obiegu książki odbywającego się w Internecie, a ściślej w hipertekstowym środowisku cyfrowo-sieciowym World Wide Web.

SŁOWA KLUCZOWE: cyfrowa kultura książki, Internet, obieg książki, World Wide Web.

