Design of e-books: readers' expectations in a comparative perspective

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Summary

The aim of the paper is to compare graphic elements used for the design of printed and electronic books. The paper focuses on four main graphic elements: book cover, typography, colour and image. Ten books published in printed and electronic form in Croatia between 2010 and 2012 were used as a research sample. The research methods used are visual content analysis and interviews.

The research results indicate that e-books imitate the graphic design of a printed book in many aspects. The graphic elements of an e-book highly depend on the features of e-formats and on e-readers. The main advantages of an e-book are that they are searchable, adaptable, easily linked to other digital documents, transportable, easily accessible and durable. Still, in the second phase of the research, the majority of the interviewed participants stated that reading of an e-book was something new to them. They prefer the interaction with a printed book and its visual appearance.

KEYWORDS: graphic design, p-book, e-book, e-readers, e-book formats.

The aim and purpose of research

The aim of the research is to compare the graphic elements of a p-book and an e-book used on different platforms in different formats. The research focuses on four main graphic elements: book cover, typography, colour and image. The purpose is to identify the changes in the book design caused by the digital revolution.

The research was conducted in two phases. The research methods used are visual content analysis and interviews. Visual content analysis is the process of deriving meaningful descriptors for visual contents (Bell 2001: 10–34). It is a common research method in media and visual studies, a systematic research method which allows inductive and deductive concluding through a variety of measurable categories under certain theoretical assumptions (Strauss 1967).

The research sample consists of ten books published in Croatia between 2010 and 2012 in print and electronic versions in two formats (ePub, PDF); four by Croatian authors and six translations:

1. Arslani, Merita. 2011. *Anđeli* će *samo zaspati*. Zagreb: Naklada Ljevak.

2. Šalković, Hrvoje. 2011. *com.opanci.com.obojci*. Zagreb: Naklada Ljevak.

3. Šalković, Hrvoje. 2011. *Nulti meridijan*. Zagreb: Naklada Ljevak.

4. Horvat, Srećko. 2011. *Ljubav za početnike*. Zagreb: Naklada Ljevak.

5. Suskind, Patrick. 2010. *Parfem – povijest jednog ubojice* [*Perfume: the story of a murdered*]. Zagreb: Znanje.

6. Taylor, Cally. 2010. Nebo može čekati [*Heaven can wait*]. Zagreb: Znanje.

7. Golden, Arthur. 2010. Sjećanje jedne gejše [*Memoirs of a Geisha*]. Zagreb: Znanje.

8. Costello, Jane. 2011. Zamalo vjenčani [*The nearly-weds*]. Zagreb: Znanje.

9. Larsson, Stieg. 2010. Kule u zraku [*Castles in the sky*]. Zagreb: Fraktura.

10. Coelho, Paulo. 2011. *Aleph*. Zagreb: V.B.Z.

During the first phase, graphic elements of a book were compared on the *Kobo* e-reader, the *Samsung Galaxy Tab* tablet device and on a computer screen. During the second phase, ten participants (professors at the Department of Information Science, Faculty of Humanities and Social Sciences, University of Osijek) were interviewed.

Research results

Comparisons of the graphic elements in printed books and e-books in different formats and on various platforms resulted in the following (*Cf*. Figure 1):

- Book covers exist in all formats
- Margins are fixed in p-book and PDF format, and non-fixed in Epub format
- Elements like colour, typography, image, etc. change depending on the platform and screen
- Image resizing, scaling and resolution are also highly dependable on device features
- Text size, text block dimension, margins and other typographic elements viewed on an e-reader in ePub format are editable. It is possible to change text properties and highlight each letter.
- Pagination does not exist in e-reader; an e-book is simply divided into chapters

- Enriched content, like multimedia, does not exist in the books we analyzed. Reader comments were added in an electronic version of one of the books.

In the second phase of the research, respondents were asked twelve questions about their experience with e-books and their attitudes towards their advantages or disadvantages compared with p-books:

1. When deciding which book to buy, how important is the book cover for you?

2. Have you noticed any differences between book cover design today and 20 years ago? If yes, describe the differences.

3. Have you ever bought an electronic book?

4. Have you ever read an electronic book?

5. What was the format of the e-book you read?

6. Do you own an e-reader device?

7. Have you noticed any differences between the visual appearance of p-books and e-books? If yes, what differences have you noticed (format, margins etc.)?

8. Are the images and typography in the e-books you have read fixed or non-fixed elements?

9. Regarding the quality of visual images in e-books, are they in better or lower resolution compared to p-books?

10. Can any of the previously mentioned elements be considered an advantage of the e-book over the p-book?

11. Does the e-book have another advantage you can think of?

12. Have you encountered any difficulties while reading e-books?

Almost all interviewees agreed that a cover page has an aesthetic function but also gives the book an identity. Cover design is often affects the buying decision. Some interviewees pointed out that cover design affects their buying decision more when they are buying the book as a present or with picture books.

Considering the changes in the book cover graphic design within the past 20 years, more images are present today than before. The front page is often "overdesigned" because of commercialisation.

All interviewees have read electronic books, mostly in PDF format, but only half of them had ever bought one.

Three out of ten respondents own an e-reader device (Kobo and Kindle); two of them own a tablet device (Samsung Galaxy Tab, IPad).

Respondents who read e-books in a format other than PDF, answered that text block, margins and typography depend on reading devices and have lost their fixed dimension.
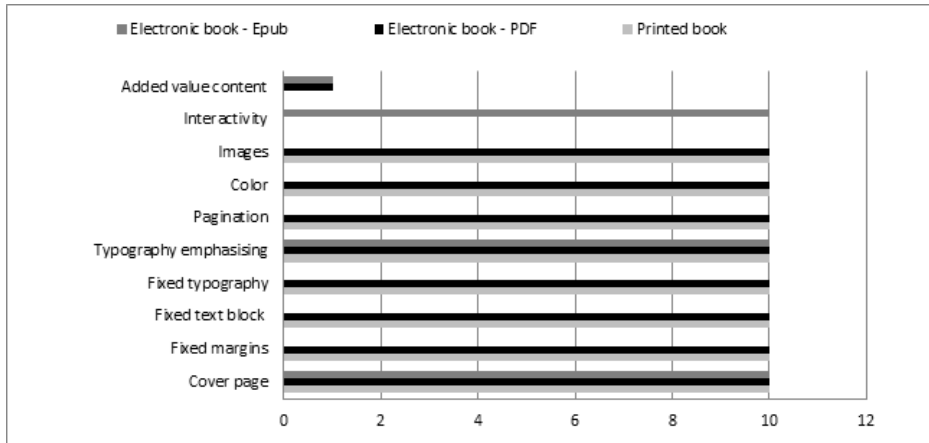
Figure 1: Comparison of graphic elements in p- and e-books

Some respondents are confused and demotivated when reading e-books in ePub format because of pagination absence. E-books are divided into sections or chapters and not accessible in a non-linear way.

Some of the answers were:

> Yes, cover page is in greyscale and in low resolution. Page size and margins are smaller than in p-book, of course, but that doesn't bother me. The really annoying thing is the absence of pagination. Because pages are counting only inside individual chapters I never know which page I am on. It's demotivating and confusing.

> The e-reader device is a key factor in the visual presentation of all graphic elements of an e-book. A Kindle device doesn't have pagination but sections. I don't see margins in an e-book, only white spaces around text. I usually associate the term 'margin' with a p-book and actual paper format of the page. For me, the key difference between a p-book and an e-book is the possibility of interaction between a text and readers. I find interaction in printed books to be better. "

> I notice that pagination in Kindle is expressed through the percentage of the text you've read.

Respondents agree that the display of images and typography depends on e-reader device features. One answer was: "Images in e-books are in greyscale, but the quality is good. Image resolution is a fixed element of e-book. Kindle usually presents the cover page in a 600x800 px in jpg format."

The respondents pointed out the following advantages of the e-book over the p-book:

- Link to dictionary or thesaurus
- Multiple books accessible on one device – easily accessible and transportable
- Fast access

- Usage is not limited by time or space
- Possibility of correction
- Multimedia features
- Link to other documents or web pages
- Searchability
- Absence of physical paper.
- Some of the disadvantages of e-books compared to p-books are:
- The printed books have a special tangible dimension
- Most people are still inexperienced with this new media
- Lack of text marking option
- Inability to borrow an e-book to a friend
- Long loading time
- Use of electric power.
- While reading e-books, respondents were experiencing problems such as:
- DRM problem
- Poor content adjustment for different reading devices
- Poor abilities for text interaction (underline, notes, etc.).

Conclusion

The research results indicate that e-books imitate the graphic design of a printed book, since their technology is still being developed. The emergence of new technologies changes the way people interact with books. E-books will change significantly before they become as familiar to readers as p-books are.

According to the research results, e-books in Croatia exist mostly in PDF format. Since PDF format is a prepress outcome of every graphic production process, the e-book already exists in digital format, whether it is downloadable or not. The graphic elements of an e-book highly depend on the features of e-formats and e-readers.

The advantages of e-books are that they are searchable, adoptable, easily linked to other digital documents, transportable, easily accessible and durable. Still, the majority of the respondents pointed out that reading an e-book was something new to them. They prefer the interaction with the printed book and its visual appearance.

References

Amos, I. 2011. *E-Reading Application Showdown, Part 2: Typography*. Accessed November 18, 2013. http://www.digitalbookworld.com/2011/e-reading-application-showdown-part-2-typography/.

Bell, P. 2001. *The Handbook of Visual Analysis*. Eds. T. Van Leeuwen and C. Jewitt, 10-34. London: SAGE Publications.

Bringhurst, R. 2004. *The Elements of Typographic Style. Version 3.0.* Point Roberts, Wash. : Hartley & Marks Publishers.

Carden, T. J. M. 2008. *E-Books Are Not Books. Proceedings of the 2008 ACM workshop on Research advances in large digital book repositories*. BooksOnline'08. 30.

eBook formats. Accessed November 11, 2013. http://ebookarchitects.com/learn-about-ebooks/formats/.

E-book. *Merriam-Webster Dictionary*. Accessed November 6, 2013. http://www.merriam-webster.com/dictionary/e-book.

E-book. *Oxford Dictionaries*. Accessed November 7, 2013. http://www.oxforddictionaries.com/definition/english/e--book.

Encyclopedia of Library and Information Science. 2005. Second Edition. First Update Supplement. Ed. Miriam A. Drake. New York; Basel: Taylor & Francis Group.

ePib. Accessed November 9, 2013. http://www.ebookxpress.org/ebookxpress/jsp/content_conversion_services/ebook_conversion_services/epib_conversion.jsp.

Haslam, A. 2006. *Book design*. London: Laurence King Publishing.

Hughes, C. A., and T. Cawkell. 2003. "E-books; electronic books". In *Encyclopedia of Library and Information Science*. 2nd ed. Ed. Miriam A. Drake. Vol. 1., 984.; 993. New York; Basel: Taylor & Francis Group.

Ink technology. Accessed November 13, 2013. http://www.eink.com/technology.html.

Kindle Format 8. Accessed October 22, 2012. http://www.amazon.com/gp/feature.html?docId=1000729511.

Lemken, B. 1999. "Ebook - the Missing Link between Paper and Screen." *Proceedings of the ACM CHI 99 Human Factors in Computing Systems Conference*, Pittsburgh, Pennsylvania, May 15-20 1999. Accessed November 13, 2013. http://www.fxpal.com/ConferencesWorkshops/chi99deb/submissions/lemken.pdf

Lupton, E. 2010. *Thinking with Type, 2nd revised and expanded edition: A Critical Guide for Designers, Writers, Editors, & Students*. New York: Princeton Arhitectural Press.

Pearson J., Buchanan G., and H. Thimbleby. 2010. "HCI design principles for ereaders." *Proceeding BooksOnline '10*. Proceedings of the third workshop on Research advances in large digital book repositories and complementary media, 15-24.

Pilato, F. 2004. *Sony LIBRIe – The first ever E-Ink e-Book Reader*. Accessed November 12, 2013. http://www.mobilemag.com/2004/03/25/sony-librie-the-first-ever-e-ink-e-book-reader/.

Press, L. 2000. "From P-books to E-books." *Communications of the ACM* 43(5): 17-21.

Richardson, Jr J. V. and K. Mahmood. 2012. "EBook readers: user satisfaction and usability issues." *Library Hi Tech* 30(1): 170-185. Accessed November 13, 2013. www.emeraldinsight.com/0737-8831.htm.

Rungtai Lin, Yen-Yu Kang, Chen-Hao Fan, and Shao-Yen Wen. 2005. "Designing E-Books for Commuters: An Application of Universal Design." *HCI International*, Las Vegas – Nevada USA, 22-27 July. Accessed November 18, 2013. http://ntua.edu.tw/~dc/files/Designing%20Ebook%20 for%20HCI2005.pdf.

Wilson, R., Landoni M., and F. Gibb. 2002. "Guidelines for Designing Electronic Books." *Proceedings of the Sixth European Conference on Research and Advanced Technology for Digital Libraries* (ECDL 2002), 47-60. Berlin. Accessed September 15, 2012. www.cis.strath.ac.uk/research/.../ papers/strath_cis_publication_27.pdf.

Sažetak

Oblikovanje e-knjiga: očekivanja čitatelja u komparativnoj perspektivi

Cilj je rada usporediti grafičke elemente koji se koriste u oblikovanju tiskanih i elektroničkih knjiga. Rad je usmjeren na istraživanje četiriju grafičkih elemenata: ovitka knjige, tipografije, boje i slikovnih elemenata. Istraživanje je provedeno na uzorku od deset knjiga koje su u tiskanom i elektroničkom obliku objavljene u Hrvatskoj između 2010. i 2012. Korištene su metode vizualne analize sadržaja i intervjui. Rezultati istraživanja ukazuju da e-knjige u mnogo aspekata oponašaju grafičko oblikovanje tiskane knjige. Grafički elementi e-knjige uvelike ovise o karakteristikama e-formata i e-čitača. Glavne prednosti e-knjige su pretraživost, prilagodljivost, mogućnost jednostavnog povezivanja s drugim digitalnim dokumentima, prenosivost, lakoća pristupa i dugotrajnost. Unatoč tome, u drugoj fazi istraživanja, većina intervjuiranih ispitanika izjavila je kako im je čitanje e-knjige novina. Skloniji su interakciji s tiskanom knjigom i njezinim vizualnim oblikovanjem.

KLJUČNE RIJEČI: grafički dizajn, tiskana knjiga, e-knjiga, e-čitači, formati e-knjiga.