E-books on tablets: a study on the opinion of adult readers about your user experience

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Abstract - **By observing the constant changes in the publishing market with the advent of mobile and digital devices. This article seeks to establish a connection between the opinions and suggestions of a group of e-book readers in applications for tablet in order to contribute to the development of the digital publishing market, as well as the user experience of this artifact. The article compares the results of interviews with users and the current possibilities in three market scanning applications with the goal of reaching a number of implications for the digital editorial design focused on the user.**

Keywords: e-book, editorial design, interaction, readers.

I. INTRODUCTION

THIS article has motivated the changes that have occurred in the editorial design market, in the projects of printed books to digital and the perception of the impact that technological advances have generated in the design process and in publishing, motivated also by behavioral changes to consumption and interaction with digital books.

Technological advances have changed the way they interact with the editorial design, it's time to produce or consume. In this context, the focus of this article is in the collection of opinions that these changes have brought the adult reader's interaction with the book today, through a study focused on the digital book on tablets.

The book, to be an important instrument of record of our history and culture, raised the will and interest in e-book as an object of study and analysis by several authors such as: (HORIE, 2012), (FLATSCHART, 2014), (PROCÓPIO, 2010, 2014). These authors write about technological change, market and its impact on the interaction between readers, authors and publishers following a path back to the marketing and technical aspects.

Other researchers have worked in a similar way in order to understand how the interaction happens the player with digital artifacts of information such as books, magazines, newspapers, etc. Such as: (ROCHA *at all* 2012); (GIORNO, 2012); (MAXWELL: LITTLE, 2010); (PAULINO, 2012); (GURSKI, 2013); (MUCHERONI: ANDRÉ, 2013).

However, the authors cited above, do not work specifically with the interaction of readers with the collection of information contained in reader applications of e-books related to the interface and design elements such as layout, typography, grid, image, etc. That is, the systems used for reading books, applications, so little with their opinions about the experience.

The current article just focuses on unexplored aspects related to the views of readers in order to contribute to the improvement of such scanning applications for e-books. Consequently improving the experience.

II. THE MARKET TRENDS AND THE IMPORTANCE OF THIS STUDY

One of the changes mentioned above can be seen through surveys conducted by international consulting management and research (BAIN & COMPANY, 2011) in three distinct markets, the United States, France and South Korea, on the e-book market that is achieve the marks of 20-25%, 15-20% and 20-25% respectively of their markets. American company with a more recent study (KNEWTON, 2013), with information collected from 24 institutions such as universities, educational organizations, government agencies, technology companies and innovation projects that the e-book market in the United States (US) , this penetration is expected to be 19.5% in 2014, 26% in 2015 and 35% in 2016. Thus, it is visible the growth of the e-book share in the global publishing market. Following this growth, there has been day after day, new applications for reading e-books.

One can also cite a survey by consulting and technology firm Gartner Group (Gartner, 2013), the results show that global tablet sales were 195.4 million units, representing an increase of 68% from the 2012. Refer to smartphones, the trend of increase in sales is also confirmed according to information from the Brazilian Association of Electrical and Electronics Industry (ABINEE, 2014), smartphones occupy 67.8% of the mobile phone market, against 32.2% common devices in Brazil, following global trends in sales. Thus, it can be seen a consistent and global growth in the purchase of mobile devices whose main function the aspect of mobility and quick access to various content, such as games, videos, websites, magazines and books.

III. THE READER OF DIGITAL AGE

"In view of the action of new technologies that are coming, what will be the reader profile of the XXI century?" This questioning Ferrero (cited PAULINE, 2009, p. 8) is one of the main questions for producers of printed and digital books today.

Professionals and companies in the publishing industry has to keep up with technological advances and consumption habits of readers, to converge and improve efforts to make the most profitable reading experience possible, regardless of the segment or platform.

Reading a text be it in print or virtual format may require the different reading strategies reader and each format can change the way you read the text. According to Chartier (cited PAULINE, 2009, p. 9), gestures change according to the times and places, objects and read the reactions to read. New attitudes are invented, others are extinguished. Roll the medieval codex, the book printed to electronic text, several major split divided the long history of the ways to read. They bring into play the relationship between the body and the book, the possible uses of writing and the intellectual categories that ensure your understanding.

In this line of thought, readers, whether they are digital natives (SANTAELLA, 2004) or in previous generations, they have for one reason or another the uses of e-books at your disposal, having to deal with these new ways of consume content. Thus, the artifacts for such an experiment have to increasingly take into account the opinion of your target audience.

IV. Aspects of editorial design digital, interaction and interactive

In physical projects, the format establishes the relationship between height and width of the page (Haslam, 2007) and is one of the first questions designed for a print publishing project. But in the digital context, a widely element affected by technology. Thus it is enhanced thinking and study how readers see your reading experience associated with new technologies and possibilities, as well as their reading context. Ie where and when has the habit of reading and how to consume books.

One of the first aspects of the digital environment changes is the form of interaction and perception of content. Making a historical analogy, in antiquity, texts and documents were written and stored in roll format. It was from the fourth century A.D. that came the famous book format today, called codex, which is nothing more than a set of individual sheets, united and protected by a protective cover (Wood, 2007). This change in format, though apparently simple, meant splitting up the contents written in standard transmission units. That is, when the roll has been divided, broke up the flow of speech created and individual elements are grouped to form the book: pages.

To Padovani (2008), the interaction is a process of communication established between the user and the system while performing tasks, which leads us to interactivity, which in turn can be defined as how proactive system configuration allows the user is in the interaction process.

Interactivity and interaction are interlinked, according Filatro (2008), because interactivity is shown as a prerequisite for interaction between user and system, and is considered a system potential quality that manifests itself from the interaction between user and system.

V. Characteristics of research and methodology

The research was applied nature and aimed at generating knowledge for practical applications aimed at specific troubleshooting. Involved truths and local interests. The applied nature is directly linked to the data collection techniques (PRODANOV & FREITAS, 2013).

In his approach to the problem, this research is characterized as qualitative and considered that there is a dynamic relationship between the real world and the subject that is an inseparable link between the objective world and the subjectivity of the subject that cannot be translated into numbers. The interpretation of the phenomena and the attribution of meaning are basic in the qualitative research process. This requires the use of methods and statistical techniques. The natural environment is the direct source for data collection and the researcher is the key instrument (PRODANOV & FREITAS, 2013).

The semi-structured interview combines open and closed questions where the informant has the possibility to discuss the theme (SELLTIZ et allii, 1987).

The major advantage of semi-structured interview is that this technique often produces a better sample of the population of interest. The interview has a very comprehensive response rate, since it is more common for people to accept talk about certain subjects (SELLTIZ et allii, 1987). Another advantage relates to the difficulty that many people have to respond in writing.

These interviews took place individually with questions between open and closed with a group of 30 participants and had an average of 10 minutes.

VI. Results and discussion

The interviews began with social order issues such as gender (53.5% men and 46.5% women), age (18 to 30 18.5% 31-44 50% 44-64 and 13.5%), education (High School 2%, 60% Higher and Postgraduate 38%) and questions to characterize the level of contact with digital books as he read (80% Computer, Tablet and Smartphone 43.5% 56.5%), how many read (1 28% 2-5 52% 6-10 16% and 11 to 20 4%), type of e-book (paid 52% and free 48%), which is better digital 40% and printed 60%), how will be the future of the books market (digital most 40% and equal to 60% digital and physical) and on which reading application prefer (10% Kindle, iBooks 20%, 70% does not matter). Such questions guided the research in order to know the profile of e-book users in scanning applications in tablet and your preferences.

When asked about what kind of book is better, even though many arguments in favor of e-book, most still prefer the printed book, transpiring that generational aspects may still be strong influences when choosing the type to be used.

Another aspect that draws attention is related to the future of publishing, where for most of the participants will be divided between the physical and digital books.

This reflects recent research on the growth in the share of e-books in publishing, as mentioned above. Unlike a few years ago that rumors pointed to the end of the printed book, as well as with the emergence of television front of the radio, television across the internet and other technologies or information propagation of media that has emerged over the past few years.

VII. Conclusion and final considerations

Current research brings important benefits to the development of e-books regarding the process of hearing the voice of users, main actor in this process. The inclusion of users in the development of a product or service is seen in several projects as essential. This procedure involves significant gains to the project because it is based on information obtained from

steps where the user or target audience is the center of questions.

Current research can demonstrate that there are still gaps that developers or companies holding reader applications need to be aware, especially the views of users for its products and services can be increasingly suited to the proposed objectives.

In addition, new forms of service have emerged in the digital publishing market in recent years as the streaming service books. This service consists of the monthly subscription which entitles the user to have access to a particular collection of titles from various genres.

Thus, we conclude that the user should be consulted constantly about their opinions on products and processes.

REFERENCES

[1] Abinee. **Sondagem conjuntural do setor eletroeletrônico - abril/2014.** Disponível em: http://www.abinee.org.br/abinee/decon/decon16.htm - acesso em novembro de 2014.

[2] Austin, T; Doust, R. **Diseño de nuevos medios de comunicación.** Bareclona, Blume, 2008.

[3] Bain & company. **Publishing in the digital era:** a bain & company study for the forum d'avignon, EUA, 2011.

[4] Bakewell, C.; Michaell, V. W: **generation y female consumer decision-making styles.** International journal of retail e distribution manegement, v. 31, n. 2, 2003.

[5] Bonsiepe, Gui. **Design: do material ao digital.** Florianópolis: FIESC/IEL, 1997.

[6] Cybis, W. A.; **engenharia de usabilidade: uma abordagem ergonômica,** Florianópolis: Universidade Federal de Santa Catarina, 2003.

[7] Nunes, Juliane Vargas. **Orientações focadas no desenvolvimento de hipermídias para aprendizagem de língua espanhola na ead.** 2012. 161f. Dissertação (mestrado em design e expressão gráfica) – Universidade Federal de Santa Catarina, Florianópolis, 2012.

[8] Passos, Ravi; Moura, Mônica. **Design da informação na hipermídia.** Infodesign: revista brasileira de design da informação, São Paulo, v. 4, n. 2, p. 19-27, dez. 2007.

[9] Cesar, N. **Os primeiros segredos da direção de arte.** Ed. Senac, 2009.

[10] Chen, C.; Czerwinski, M. **Spatial ability and visual navigation: an empirical study.** The new review of hypermedia and multimedia, 3, p. 67-89, 1997.

[11] Cox, J. W., & J. Hassard. **"triangulation in organizational research: a re-presentation"**, em organization, 12: 1, ab/inform global, pp. 109-133, 2005.

[12] Creswell. J. W: **projeto de pesquisa:** métodos qualitativos, quantitativos e mistos. 2. Ed. Bookman, 2007.
Ferreira, p. **O jornalismo e as tecnologias de informação on-line: do telégrafo à internet móvel.** Revista estudos de jornalismo, Campinas, v. 6, n. 1, pp. 65-77, jan./jun. 2003.

[13] Denzin, N. K. **The research act**, englewood cliffs, n. J., Prentice Hall, 1989.

[14] Freire, E. N. **O design no jornal impresso diário. Do tipográfico ao digital**. Revista galáxia, São Paulo, n. 18, pp. 291-310, dez. 2009.

[15] Freire, F. J; Lemos, J. L: **imperativos de conduta juvenil no século xxi:** a "geração digital" na mídia impressa brasileira. Comunicação, mídia e consumo, v. 05, n. 13, jul., São Paulo, 2008.

[16] Gartner. **Gartner says worldwide pc, tablet and mobile phone shipments to grow 5.9 percent in 2013 as anytime-anywhere-computing drives buyer behavior**, eua, 2013. Disponível em: http://www.gartner.com/newsroom/id/2525515 - acesso em novembro de 2014.

[17] Henderson, S.; Yeow, J. **Ipad in education: a case study of ipad adoption and use in a primary school. In: hawaii international conference on system sciences, 45.**, 2012, grand wailea, maui, hi, usa. Proceedings. Grand wailea, maui, hi, EUA, 2012. P. 78-87.

[18] Horie, R. M. **Arte-finalização e conversão para livros eletrônicos nos formatos epub, mobi e pdf.** Bytes & types srv. E com. Ltda, 3. Ed, 2012.

[19] Jenkins, H. **Cultura da convergência**. 2. Ed. São Paulo: aleph, 2009.

[20] Jonhson, S. **Cultura da interface:** como o computador transforma nossa maneira de criar e comunicar. Jorge Zahar Editor Ltda, 2001.

[21] Kallenbach, J. Et al. **Ereading media use, experience & adoption.** Espoo: Next Media. 2011.

[22] Kelle, U. "sociological explanations between micro and macro and the integration of qualitative and quantitative methods", em forum qualitative sozialforschung/forum: qualitative social research(revista on-line), 2: 1 (43 parágrafos), 2001. Disponível em: http://www.qualitative-research.net/index.php/fqs/index, acesso em janeiro/2015.

[23] Knewton. **The state of digital education infographic**, eua, 2013. Disponível em: http://www.knewton.com/digital-education/ - acesso em novembro de 2014.

[24] Leão, L. **O labirinto da hipermídia: arquitetura e navegação no ciberespaço.** São Paulo: fapesp/ iluminuras, 2005.

[25] Lowdermilk. T. Um guia para o desenvolvimento de aplicativos amigáveis: **design centrado no usuário**, Novatec Editora, 2013.

[26] Mec. **Plano nacional do livro didático**. Disponível em: http://www.fnde.gov.br/programas/livro-didatico/livro-didatico-apresentacao - acesso em novembro de 2014.

[27] Mod, C. **A simpler page**. A list apart. Disponível em: <http://www.alistapart.com/articles/a-simpler-page/> - acesso em novembro de 2014.

[28] Oliveira, S. **Geração y: era das conexões, tempo de relacionamentos.** São Paulo: Clube de autores, 2009.

[29] Filatro, A. **Design instrucional na prática.** São Paulo: Pearson Education do Brasil, 2008.

[30] Padovani, S. **Usabilidade de sistemas de navegação em hipermídia.** In: 3º conahpa, 2008, São Paulo/sp. 3º congresso nacional de ambientes hipermídia para aprendizagem, 2008.

[31] Padua, Mariana C.; Murta, Ângela s.; Oliveira, Silvio B. De. **Design e emoção: estratégias para o design da interface de aplicativos para o ipad.** In: congresso internacional de design da informação, 5., 2011. Anais... Florianópolis: estação das letras e cores editora, 2011. Cd-rom.

[32] Pereira, R. C. F.; almeida, s. O; laux, f. N: **marketing de gerações: construção e teste de escala para avaliação da marca coca-cola por jovens na fase de transição entre as gerações x e y**. Revista eletrônica de administração - read, ed. 52, v. 12, n. 04, jul-ago, 2006.

[33] Preece, J., Rogers, Y. & Sharp, H.: **Interaction Design: beyond human-computer interaction.** New York: John Wiley & Sons, Inc., 2002.

[34] Procópio, E. **O livro na era digital:** o mercado editorial e as mídias digitais. São Paulo: giz editorial, 2010.

[35] Procópio, E. **A revolução dos ebooks:** a indústria dos livros na era digital, São Paulo: Ed. Senai, 2013.

[36] Prodanov C. C; Freitas E. C: **metodologia do trabalho científico:** métodos e técnicas da pesquisa e do trabalho acadêmico. 2. Ed. Novo Hamburgo, 2013.

[37] Robinson, M: **The comprehension shift, hmi of the future – designers of the future.** 2004. In: Mcdonagh, D.; Hekkert, P.; Van Erp, J.; Gyi, D. Design and emotion. London: Taylor & Francis, p. 18.

[38] Saffer, D.:**Designing for interaction: creating smart applications and clever devices.** Berkeley: New Riders, 2007.

[39] Santaella, L. **Navegar no ciberespaço: o perfil cognitivo do leitor imersivo.** São Paulo: Editora Paulus, 2004.

[40] Santaella, L. **Comunicação ubíqua: repercussões na cultura e na educação.** São Paulo: Editora Paulus, 2013.

[41] Selltiz, Claire et allii. **Métodos de pesquisa nas relações sociais**. Trad. Maria Martha Hubner de Oliveira. 2 ed. São Paulo: epu, 1987.

[42] Silva, R. S. **Diagramação o planejamento visual gráfico na comunicação impressa.** Sammus, 1985.

[43] Tashakkori, A., e C. Teddlie. **Mixed methodology. Combining qualitative and quantitative approaches** (applied social research methods series, vol. 46), Londres, Sage, 1998.

[44] Unesco. **Policy guidelines for mobile learning**. França, 2013.