

CARLA GANITO & CÁTIA FERREIRA
carla.ganito@gmail.com; csaferreira@sapo.pt
CECC-FCH, CATHOLIC UNIVERSITY OF PORTUGAL

WOMEN AND DIGITAL READING: THE GENDERING OF DIGITAL READING PRACTICES

ABSTRACT

Technofeminism theory proposes a relation in which technology is, at the same time, cause and consequence of gender relations. Technofeminism allows us to take into account women's agency and offer a more complex account of the gendering process, one that incorporates contradiction. The chapter proposes to use the lenses of Technofeminism to look at digital reading.

Based on the findings of the research project "Digital Reading and the Transformation of Reading Stimulus and of Book Institutions", we aim at analyzing the role women play in the uptake of digital reading. The chapter provides a quantitative analysis of women's digital reading practices collected through the online survey of 16 countries in 2013. The chapter wants to offer new insights to answer how women are defining new developments in the transition from print to digital.

KEYWORDS

Digital reading; technofeminism; women

1. INTRODUCTION

Technofeminism theory proposes a relation in which technology is, at the same time, cause and consequence of gender relations (Wajcman, 2004). Technofeminism allows us to take into consideration women's agency and offer a more complex account of the gendering process, one that incorporates contradiction. The chapter proposes to use the lenses of Technofeminism to look at digital reading. If society is co-produced with technology, the gender effect cannot be ignored in the design, development, innovation and communication of products such as eReaders and

eBooks. The traditional representation of women's use of technology is that they are neither interested nor capable in the field of technology and history keeps repeating as new technologies come to the world. After being initially targeted to young adult male, women are embracing eReaders, tablets, smartphones and eBooks. According to global surveys women are leading on eReaders ownership, closing the gap on tablets, and smartphones are evenly divided between men and women in many regions of the globe.

Based on the research project "Digital Reading and the Transformation of Reading Stimulus and of Book Institutions", we aim at analyzing the role women play in the uptake of digital reading. The paper provides a quantitative analysis of women's digital reading practices collected through the online survey of 16 countries "Digital Reading: Usage, Attitudes and Practices" (2013). The paper wants to offer new insights to answer how women are defining new developments in the transition from print to digital.

The research is not only centered on differences between men and women. Much of the previous research on the gendering of technology has been conducted in comparative terms, women versus men with no provocative insights. This research pretends to take further the analysis by complementing the comparison between men and women with the identification of women's specific experiences, leaving space for the contradictory effects and meanings for different groups of women. So it is not only about differences between men and women, but about the different meaning of digital reading and its trajectory in women's lives.

The chapter is organized in five sections. The first, 'New Practices from a Feminist Lenses', presents the theoretical contextualization of the relationship that is being established between gender and technology, having Technofeminism theory as background. The second, 'Digital Reading', aims at framing the research regarding digital reading practices, setting the major challenges and the framework concerning the study of emergent practices. The third section is devoted to the empirical research methodology and is followed by the presentation of the survey results regarding tendencies by gender in a section entitled 'Gendering Digital Reading'. The fifth, and last, section is focused on the female sample of the study, having the goal of characterizing the main trends concerning digital reading among women. This section is entitled 'Giving Voice to Women'.

2. NEW PRACTICES FROM A FEMINIST LENSES

If society is co-produced with technology, the gender¹ effect cannot be ignored in the design, development, innovation and communication of technological products: “Technology, then, can tell us something we need to know about gender identity. Gender identity can tell us something we need to know about technology” (Cockburn, 1992, p. 42). The emergent Technofeminism theory proposes a relation in which technology is, at the same time, cause and consequence of gender relations (Wajcman, 2004, p. 107). Technofeminism allows us to take into consideration women’s agency and offer a more complex account of the gendering process, one that incorporates contradiction. Judy Wajcman (2007) defined the challenge in the following terms:

The literature on gender and technology has grown to become a broad and diverse field. It foregrounds the need to investigate the ways in which women’s identities, needs and priorities are being reconfigured together with digital technologies. This opens up fresh possibilities for studies that are more attuned to how different groups of women users creatively respond to and assimilate numerous ICTs in diverse real-world locations. (Wajcman, 2007, p. 295)

¹ The distinction between sex (biological characteristics) and gender (socially acquired characteristics) began with second wave feminism. Frequently researchers “use the term gender as a variable in empirical research, although this is simply dichotomized into male or female and thus is really used as a proxy for sex” (Coulthard & Castleman, 2006, p. 31). Nevertheless the interest in finding biological differences still persists both in academic production and in popular culture as evident by the proliferation of books and movies on the subject of what biologically separates women from men. With third wave feminism, scholarship took a critical approach to gender and has acknowledged that gender cannot be reduced to biological sex and that it encapsulates more complexity than the dichotomy of man and women and that there are a wide set of differences that account for gender differentiation, “The theoretical challenge has been to develop a new approach to gender that recognizes these differences but does not reduce them to biology or simple social conditioning” (Coulthard & Castleman, 2006, p. 33). One of the examples of the contemporary approaches to gender is West and Zimmerman’s (1987) distinction between sex, sex category and gender and the proposal of gender as a “doing”. For them sex is “a determination made through the application of socially agreed biological criteria for classifying persons as males or females” (West & Zimmerman, 1987, p. 127). This determination is the outcome of a social process that allows us to find criteria to classify what constitutes a male or a female. Thus, at birth, we are placed into one sex category and from there on we relate to others based on their displays for the according sex category such as hair or clothing. So sex category is a proxy for sex. Gender is the process that enables us to display our sex category. Gender is not something we are but something we do. In the same sense, Butler posits gender as a performance (1990, 2004a, 2004b). It is in this scope that we will use the term gender throughout the chapter, as a concept that has moved from being an assumed natural category to one in which gender is a process, an ongoing unfolding act that is continually shaped and refined: “Gender behavior is not informed by an inner core, biological or otherwise. It is informed by the mundane, everyday need to make sense to oneself and to others” (Coulthard & Castleman, 2006, p. 34).

This research took up Wajcman's challenge to provide an account of women's digital reading practices.

Women's use of technology has historically been presented as dystopic². Women are culturally considered the guardians of nature (Hopkins, 1998). They are the ones that become pregnant; they are the ones that raise children and their use of technology is viewed as a corruption of nature. For the eco-feminists it is even considered a metaphorical rape:

In the philosophical and literary discourse, noted Adorno and Horkheimer, it is common to identify women with nature. These shows up as the repressed subject of the bourgeois male that gives female body two functions: represent a site of exploitation and a potential utopia. The bourgeois subject is always male and women a male projection. The utopia is conceived as a reunification of the body and the bourgeois subject, which would mean reconciliation with "nature". (Silveirinha, 2008, p. 109)

Mary Ann Doane (1999) describes this dystopia as a process of transference by which the anxieties regarding technology are transferred to the feminine. The author provides several examples from the cinema. The first is that of the robot Maria in Fritz Lang's *Metropolis* (1926) and the corruption of motherhood. At the end "the machine is returned to its rightful place in the production, the woman hers in reproduction" (Doane, 1999, p. 25). The notion of technology tainted motherhood is presented in recent films such as *Alien* (1979), *Aliens* (1986) and *Blade Runner* (1982).

The concept of what is considered technology also relegates women's role to a secondary place. The Western imaginary of technology is related to technologies generally used by men from which women are excluded because "contemporary western femininity has involved the constitution of identities organized around [women's] technological incompetence" (Cockburn, 1992, p. 41). Technologies generally used by women are not even considered proper technologies, such as kitchen appliances: "in virtually all cultures whatever is defined as manly, is more highly valued than whatever is thought of as womanly" (Harding, 1986, p. 18). Women's spheres of technological appropriation were simply not part of the picture: "The statistics reveal no technological activities which are strictly feminine. One can, of

² We could trace the association of science to masculinity and nature to femininity during the Enlightenment, where the legacy of Aristotelian philosophy defined women as passive and intellectually inferior to men. The Scientific Revolution that started a process of nature domination implied also a domination of women. The set of values associated with femininity were inferior and less valuable to those associated with masculinity.

course, name activities that are strictly feminine, e.g., nursing and infant care, but they fall outside the range of technological pursuits” (Murdock & Provost, 1973, p. 210 cit. in Stanley, 1998, p. 17).

Men and manly technologies are the norm to which women have to comply – “The discussions about the concept of technology are important because technical artefacts used by mainly women tend to be excluded, reinforcing the connection between men, masculinity and technology” (Berg & Lie, 1995, p. 340). When a technology used by women is acknowledged it is not valued in the same way. As technologies enter everyday life they seem to lose their research interest and women, being the vast majority of the users of mass technology, do not get a place in the picture.

The feminist debate itself has ranged from the view of technologies as part of a patriarchal frame, shaped and mostly used in destructive and oppressive ways, to the view of technology as a liberating tool for women. For Don Ihde (2002), the root for the polarization between utopian and dystopian visions of technology is a contradictory wish: we simultaneously want the power of transformation that technologies bring, and a natural experience, one of total transparency. An impossible synthesis because technologies are not neutral:

The actual or material technology always carries with it only a partial or quasi-transparency, which is the price for the extension of magnification that technologies give. In extending bodily capacities, the technology also transforms them. In that sense, all technologies in use are non-neutral. (Ihde, 2002, p. 504)

Technological artefacts mediate our sensorial relation to reality and by doing it they are transforming our perception. This capacity for transformation is designated by Ihde (2002) as “intentionality”, meaning that technologies have an active part in the relation between us as the world. But these *intentionalities* are not fixed properties of the artefacts; they are shaped in the relation that humans establish with them. In the context of different relations, technologies can have distinctive identities. Ihde calls them “multistabilities”: the same technology can have different stabilities, according to its usage context.

Technology has thus been a controversial issue in feminist thinking. Third-wave feminism operates a rupture with former feminist thought: “Postmodern feminists reject any mode of feminist thought that aims to provide a single explanation for why women are oppressed or *the ten or*

so steps *all* women must take to achieve liberation” (Tong, 2009, p. 270). There is room for more diversity, change and transformation.

Recent feminist studies began to theorize gender not as a prior reality that gets inscribed into technology, but as relational construct, a performance, a doing (Butler, 1990, 1993, 2004a, 2004b; West & Zimmerman, 1987).

The new feminist approaches, coinciding with the emergence of new digital technologies and digital media such as the Internet and mobile phones, also give rise to cyberfeminism and a more optimistic, sometimes fetishist view of technologies. Authors such as Sadie Plant, Sherry Turkle and Donna Haraway contend that digital technologies, and their disembodiment characteristics, transform them into a liberating tool for women.

Digital technologies and new media heralded new possibilities - a new era of empowerment and liberation. Some even contended that these were feminine media and women were particularly equipped for a networked world (Haraway, 1991; Plant, 1997, 2000; Turkle, 1984, 1995). The work of cyberfeminists, especially Donna Haraway, was pioneer in the highlighting of women’s agency and thus became very influential among feminist technoscience scholars.

In *Simians, Cyborgs and Women: The Reinvention of Nature* (1991), Donna Haraway articulates the concept of “cyborg” with feminism. The cyborg is a creature of a post-gender world that ends all dualisms, namely the polarity man and woman, a hybrid of human being and machine through which our sense of connection to our tools is heightened. She proposes that women must embrace technology as feminist politics and defends the need to go beyond the critic of representation and to incorporate the female subject in its multiplicity and subjectivity.

Haraway sees in science and technology the potential to create new meanings and new entities. Provocatively, Haraway proposes the cybernetic organism as an alternative to a pure and deified vision of women, ending all dualisms:

There is nothing about being female that naturally binds women together into a unified category. There is not even such a state as ‘being’ female, itself a highly complex category constructed in contested sexual scientific discourses and other social practices (Haraway, 1991, p. 231).

Although Haraway identifies science as a capitalist product, of a military, colonialist and racist society, dominated by men, she sees in cybertechnology the possibility for feminine emancipation, refuting the

anti-technological stance within most feminist critiques of science and technology as patriarchal tools for oppressing women.

The metaphor is especially powerful in its hybridism. An image of “transgressed boundaries, potent fusions and dangerous possibilities which progressive people might explore as part of much needed political work” (Haraway, 1991, p.154). Thus, many feminist authors in their revisitation of the gender-technology relation have used the cyborg. As an example, Anne Balsamo’s work builds on the cyborg theory to articulate bodies, technology and identity:

Cyborgs are hybrid entities that are neither wholly technological nor completely organic, which means that the cyborg has the potential not only to disrupt persistent dualisms that set the natural body in opposition to the technologically recrafted body, but also to refashion our thinking about the theoretical construction of the body as both a material entity and a discursive process [...] the cyborg provides a framework for studying gender identity as it is technologically crafted simultaneously from the matter of material bodies and cultural fictions. (Balsamo, 1996, p. 11)

Critics charge cyberfeminism of being a different kind of technological determinism, an optimistic one. Empirical work on the level of women’s participation in new media reveals that the situation has not dramatically improved and that old stereotypes are still in place in environments such as virtual worlds. Attributing to new technologies the power to emancipate women also brings back a certain form of essentialism. If we argue that women are better prepared for a network society then we are implying that there is something in their nature that makes them better prepared. And it also opens up the debate of what is “new”. Wajcman advises against the “danger of confusing new developments in theory with new developments in the things that theories are about” (Wajcman, 2004, p. 55). If technology and gender are co-produced, and that has always been the case, there should be nothing exceptional about digital technologies.

The work of Judy Wajcman stands as a bridge between earlier polarized positions of the feminist debate. In *Feminism Confronts Technology* (1991) and *TechnoFeminism* (2004) the author defends a relation in which technology is, at the same time, cause and consequence of gender relations. This chapter will draw substantial contributions from her work. Technofeminism builds on the insights of cyberfeminism and the theories of social shaping of technology and constructivism. It also avoids both technological

determinism and gender essentialism (Wajcman, 2009). It is a more integrated approach that stresses that gendering occurs through the entire life trajectory of an artefact, from design to consumption, while former theories were too focused on a single step of the process.

Technofeminism builds on STS scholarship to allow for agency and fluidity to be taken into account in the analysis of the gendering of technology. Concepts as “interpretative flexibility” (Pinch & Bijker, 1987) and “domestication”³ (Silverstone & Hirsch, 1992) reinforce the idea that technology is not pre-determined and that its trajectory is unpredictable.

Interpretative flexibility refers to the way in which different groups of people, involved with a technology can have very different understandings of that technology, including different understandings of its technical characteristics. Thus users can radically alter the meanings and deployment of technologies. (Wajcman, 2000, p. 450)

Technologies can be subverted, reinterpreted, given unanticipated and unintended uses. The final result is a product of a social and material dialogue. François Bar’s work⁴ on technological appropriation of the mobile phone (Bar, Pisani & Weber, 2007) is particularly relevant in this matter.

The problem with the social construction of technology theory from the perspective of feminism is that technologies acquire a stable meaning when relevant groups accept them, and women are not usually part of those groups, so gender analysis is generally overlooked.

Another useful approach is “actor-network theory” (ANT) developed by Michel Callon, Bruno Latour and John Law (Callon & Rip, 1986; Latour, 1987; Law & Hassard, 1999). ANT enables the researcher to take the material reality into account, and consider the artefact part of the network with its own agency. The artefact also acts according to a script. But this script, once more, is not fixed; different actors can translate it in different ways.

It is ironic that so much of post-modernity is articulated around the feminine when women still have so little voice. A reality sometimes hidden

³ The “domestication” framework is particularly useful to highlight the complexity of processes for incorporating technology into everyday life. Such as the social shaping of technology (STS) it recognizes the agency of users in the adoption of artifacts in their lives. Use is also related to context and to the collectivity, rather than the individual: “The emergence of the domestication Kept represented a shift away from models which assumed the adoption of new innovations to be rational, linear, monocausal and technologically determined. Rather, it presented a theoretical framework research approach, which considered the complexity of everyday life and technology’s place within its dynamics, rituals, rules, routines and patterns” (Berker, Hartmann, Punie & Ward, 2006, p. 1).

⁴ Website for the abaparu project <http://abaporu.net/>.

under the illusion of equal access and sex equality. Adopting a technofeminist perspective will allow the analysis of digital reading to go “beyond the discourse of the digital divide to connections between gender inequality and other forms of inequality, which come into view if we examine the broader political and economic basis of the networks that shape and deploy technical systems” (Wajcman, 2004, p. 121).

With this research we propose to better understand the role women play in the uptake of digital reading and what are women’s digital reading practices.

3. DIGITAL READING

Reading practices are changing with the rise of convergent technologies. The traditional book format established by Gutenberg and his printing method with movable types transformed books into a mobile tool for information and/or entertainment purposes. For a long time this format seemed the ideal one; nevertheless with the increasing relevance of digital contexts, it is being questioned and experiments are being conducted to narrow the existent gap between print books and digital media practices.

This is one of the main challenges of the research. How to map practices that are invisible? How to make questions? What to ask people. We propose that digital reading presents itself as an invisible activity. Reading is still very much associated with the printed book and all other reading activities, namely the ones performed on screens, are seldom considered reading, which pinpoints to a need to develop new survey practices.

Commonly digital reading is regarded as a replacement activity, when in fact it is a cumulative activity. Those that read in paper are also those that read digitally. Digital reading performs as an extension activity of the printed formats. Survey results, point to the fact that those that already have intensive reading habits in paper will also be the ones that will read more digitally and vice-versa. Digital reading functions as an extension of paper:

[...] the more more printed books you have at home, the more the chance you will read in digital, but this is not an absolute truth, from those that stated to have more than 200 books at home, around a third declared that they have not read an eBook in the last year. But if you have not read a printed book then you probably would not have read a digital book either. (Cardoso & Cameira, 2015, p. 268)

In the scope of gender this cumulative effect would be very important to test as women are identified as more avid readers than men, would this still be the case for digital reading or would women be stirred away by the digital device?

Digital reading is also viewed as a generation marker when in fact it should be viewed as a lifestyle activity, bounded by life cycles and social roles. The results will show that education plays a more important role than age when comes to reading eBooks.

Finally, digital reading practices rely on a new form of mobility, new mobile reading devices offer an extended mobility: a mobility that is connected, networked, collaborative, shared, and consequently community and identity are key concepts in digital reading practices. In this regard, Naomi Baron (2013) proposes that: Considerations regarding reading on mobile devices have both commonalities and differences compared with reading on stationary computer screens. All the issues of durability and intrusion from multi-tasking remain. [...] However, careful research needs to determine whether prior reading practices will eventually be shifted to mobile devices or whether the affordances of these devices will end up redefining what we mean by reading. (Baron, 2013, p. 139)

We witness the appropriation of new technological devices for reading practices. eReaders, tablet PCs, mobile phones, and laptops, for instance, have three main characteristics that may be associated with digital reading practices. They foster social collaboration, participation and mobility more than any precedent reading device, even if we compare them with the traditional book. For the first time we can share our opinion of a book that we have just read, not only with the members of our 'traditional' social networks, but expand this sharing through our online networks. Collaborative writing is an emergent phenomenon. And these renewed practices may be close related to concepts like community and identity: communities of readers, authors, fans, or re)mixed ones; and the valorization of reading practices as an identity element.

Digital reading is also related with an augmented dimension of mobility. For the first time we may not only read in any location, but we can read in any location without giving up being connected to our networks. Reading may become a network and collaborative activity through its association with mobile technological reading devices. We now speak of locative media where, besides content, context also plays a major role.

But this new enhanced mobility also means having access to a mobile device, does this hinder women's access?

The research allows us to reach a proposal for a definition of what means to read digitally – it means to accomplish some or all) of these tasks on a regular basis: to read digital books but also to read daily in social media or to use search engine like Google; to read e-mails but also newspapers online (Cardoso, 2015).

Reading in 2014 means to read on paper and digitally, for those who use the Internet, and read only on paper for those who do not use the Internet). It also means to read not only full-length formats, but also shorter ones. Digital reading resorts to all sorts of devices from the computer to dedicated eReaders, but also smartphones. Besides reading on multiple devices, it also means to read on several locations, with different purposes; and to take advantage of reading as an individual, but also social activity (Cardoso, 2015).

These new affordances pose several challenges to women all over the world, challenges that range from access, to skills and time. In order to contribute to a better understanding of what reading and readership now means to women, we will now focus our attention in the empirical study, beginning with a further contextualization of the methodology and of the methods used.

4. METHODOLOGY

The research is based on a quantitative methodology. In the following sections it will be presented and discussed the results of an extensive international quantitative survey of 16 countries, focusing on digital reading practices. The countries surveyed were Australia, Brazil, Canada, China, France, Germany, India, Italy, Mexico, Portugal, Russia, South Africa, Spain, Turkey, United Kingdom, and United States of America.

The survey was one of the data collection methods applied in the context of a two year research project funded by Calouste Gulbenkian Foundation - 'Digital Reading and the Transformation of Reading Stimulus and of Book Institutions'. Due to the extension, diversity, and complexity of the research object, it was considered more appropriate to have multidisciplinary methodological tools. Among which: 1) comparative analysis, benchmarking, and documentary research; and 2) field research – empirical data collection. The field research was based on different data collection methods like interviews, panel discussion with representatives of the Portuguese publishing chain librarians, publishing houses, authors, and content and

soft/hardware providers), focus groups, and the cross country online survey on digital readership practices.

The survey was conducted in January and February 2013 through an online questionnaire with a sample of 5,582 Internet users aged 15 and older. The sample was defined taking into account the Census for each country, as well as the Internet demographics.

The questionnaire had 83 questions organized in thirteen analysis dimensions. Each of these dimensions constituted a part of the questionnaire. The dimensions were: Brief Characterization country, age); Digital Devices and Internet Access; Internet and Social Networking Practices; News and Information Access; Storage of Digital Content; Piracy Culture / Internet Control; Innovation, Creativity, Production, Action; Reading Practices on Paper; Reading Practices on Screen and Library Usage; Newspapers and Magazines Consumption; Paid / Free of Charge Content; Perceptions and Experiences about Reading; Cultural / Leisure Practices; and Sociographic Characterization gender, inhabitation local, household income, education, employment, marital status, household characterization).

In the following section we will present the results of the survey which allow to map the digital reading landscape of the 16 countries focusing on gendered practices.

5. GENDERING DIGITAL READING

Reading affects everything you do.
Those who cultivate the skill shall be given and have abundance;
Those who do not face a much harder path
(Keith Stanovich describing the Mathew Effect)

Reading is a gendered practice. According to the 2009 PISA report “when comparing girls and boys who were similarly proficient in print reading, boys scored an average of six points higher in digital reading. Among these students, boys outperformed girls in digital reading by between 5 and 22 score points” (OCDE, 2014, p. 57). One explanation for this difference was that “boys and girls do not share the same degree of ease in selecting and organising – or navigating – pieces of information found in hypertexts (OCDE, 2014). Could digital reading playing a negative effect on women’s reading practices?

One of the main conclusions of our research survey was that reading matters. When purchasing a device with Internet access the majority of the

respondents, 61%, considers important the ability to read texts – books, magazines or newspapers (Figure 1).

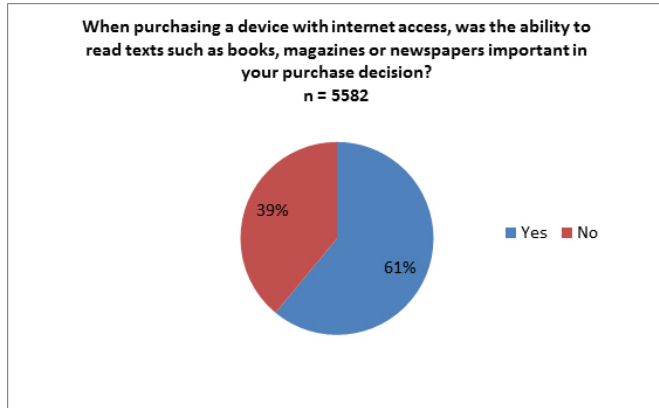


Figure 1: Role played by reading in the purchasing decision of a device

That role (Figure 2) is slightly more important in men's decision (53.4%) than in women's decisions (46.6%). We could argue that women are more avid readers and are thus more entrenched in the print format and thus consider that the new devices are not required to perform a function that they already see satisfied by the print format.

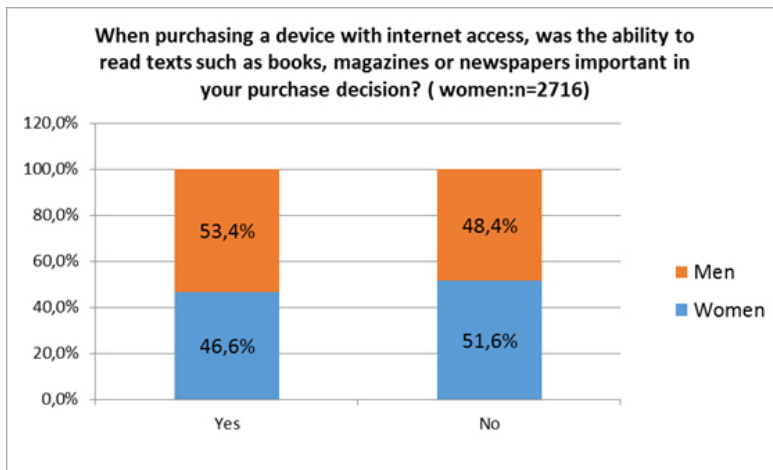


Figure 2: Role played by reading in the purchasing decision of a device broke down by gender

Digital reading is becoming a widespread practice with 58% of the global sample stating that they have had read a book in digital format (Figure 3).

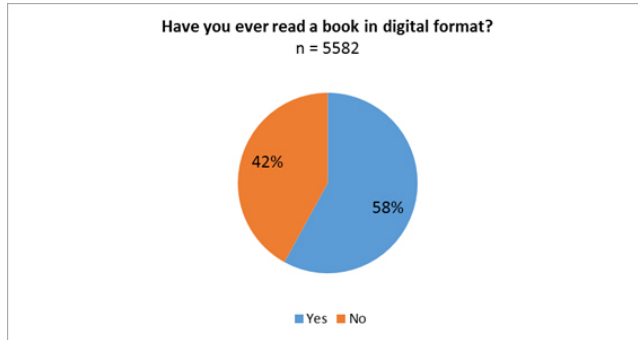


Figure 3: eBook reading

Once again men are slightly more prone than women to have read a book in digital format (Figure 4). Only 47.6% of women versus 52.4% of men state that they have read a book in digital format.

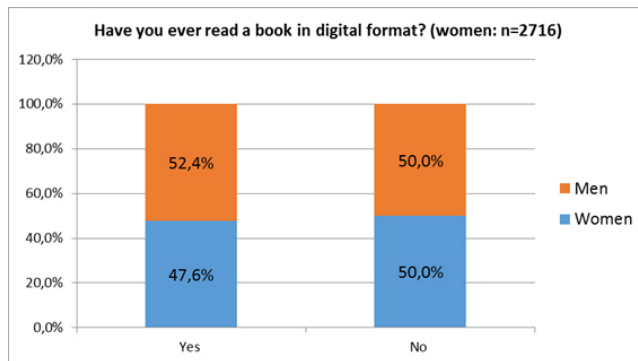


Figure 4: eBook reading by gender

Not only does digital reading play an important role in today's practices, but also it is on the rise. When asked "now that books, magazines, newspapers and other material are available in electronic and digital forms, how long do you spend reading" 29% already says more (Figure 5), while 50% states to spend the same amount of time than before.

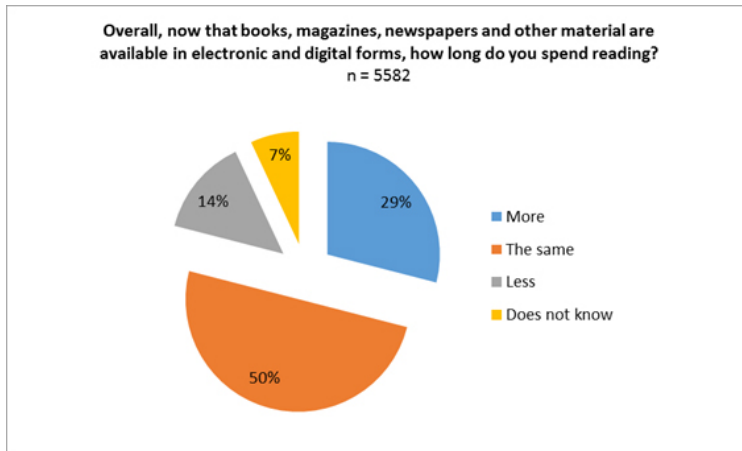


Figure 5: Time spent reading

In regards time spent reading, men also spend slightly more time reading now that reading materials are available in digital format (Figure 6) hinting that digital reading could function as a reading incentive for men.

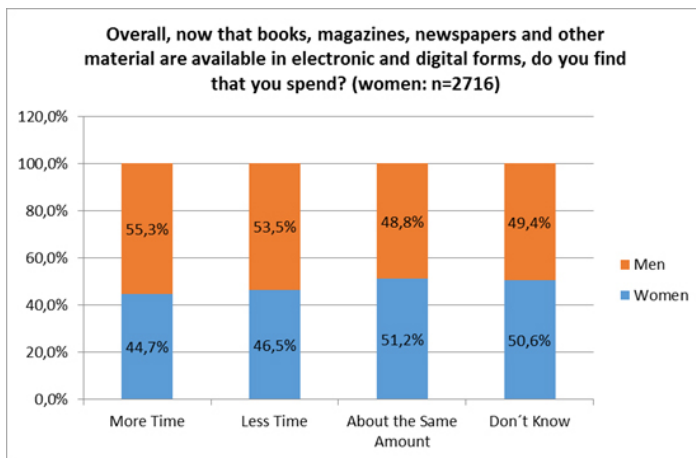


Figure 6: Time spend reading broken down by gender

Regarding future expectations (Figure 7) people expect to read more on a digital medium, with 44% stating that they think they will find themselves reading more on a digital medium.

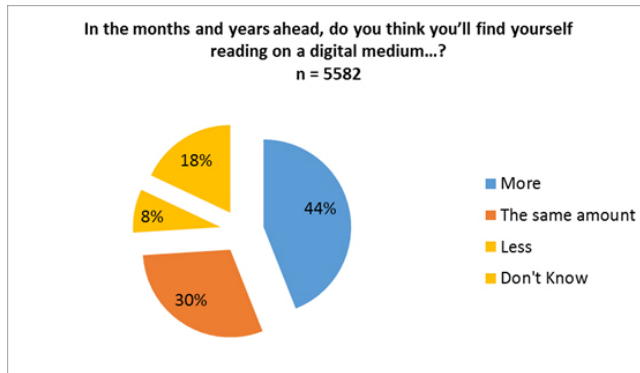


Figure 7: Future expectations regarding digital reading

Once again men have a slight higher expectation of reading more on a digital medium in the months ahead (Figure 8) with 55.2% of men versus 44.8% of women stating that they think they will read more.

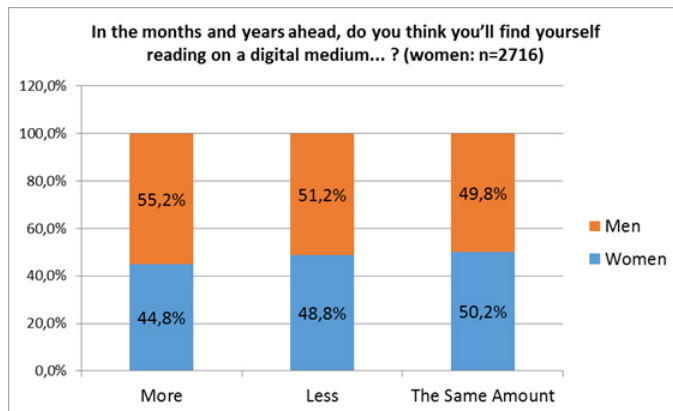


Figure 8: Future expectations regarding digital reading by gender.

Mobility matters, as the survey makes it clear that users value mobility (Figure 9) with laptop computers surpassing the desktop and mobile phones getting very close, 76% for basic mobile devices and 72% for smartphones versus 77% for the desktop computer.

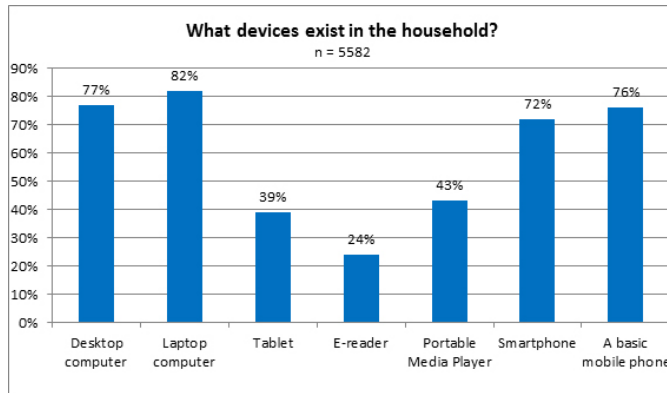


Figure 9: Device ownership in the household

In regards to gender men surpass women in the access to technology in all devices (Figure 10). The gap is particularly wider for tablets but quite narrow for eReaders. Nevertheless the preference for mobile technologies is also notable for women.

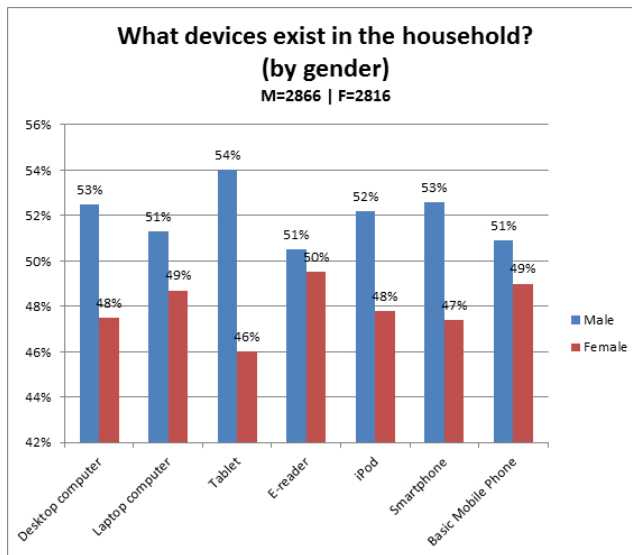


Figure 10: Device ownership in the household by gender

The type of device also matters (Figure 11), eReaders are the preferred device for reading, followed by tablets.

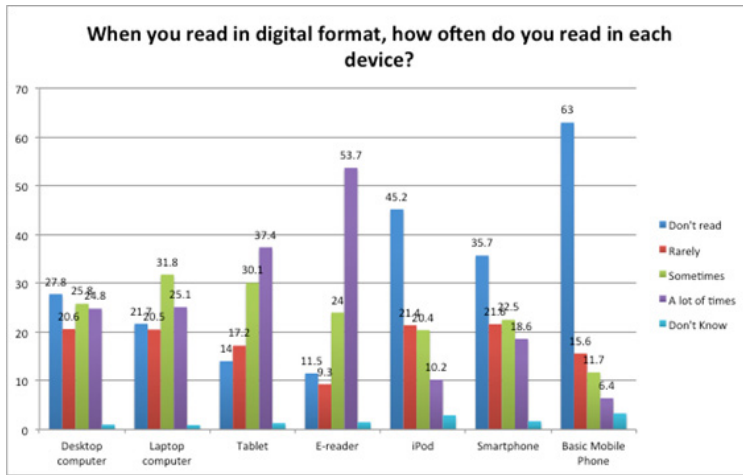


Figure 11: Digital reading by type of device

In the breakdown by gender (Figure 12) mobility seems to matter most for women with men still reading a lot in the desktop computer (59,4% for men versus 40,6% for women).

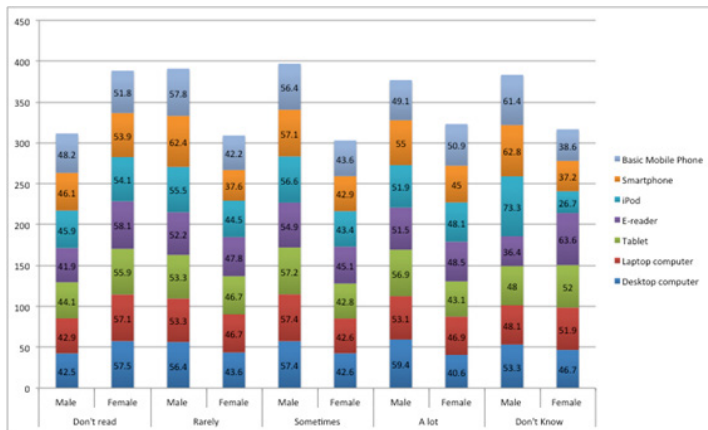


Figure 12: Digital reading by type of device and gender

When faced between printed books or digital books speed and selection are key for digital while convenience is key for the printed book (Figure 13). A special note for the activity of reading with a child where the choice for the printed book is overwhelming which might be attributed to the widespread fear of exposing children to technology.

Women and digital reading: the gendering of digital reading practices

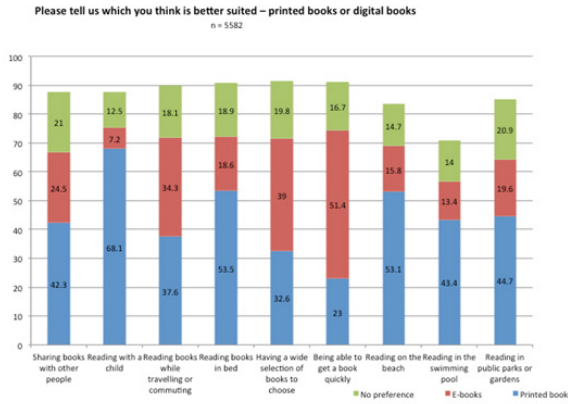


Figure 13: Preference for printed or digital books according to activity

When we look at gender preferences (Figure 14), curiously the gap is particularly wide for reading with a child for which 65.6% of men versus 34.4% of women prefer an eBook. When comparing men and women eBooks are always preferred by men for all activities; the contrary happens for women in the printed book.

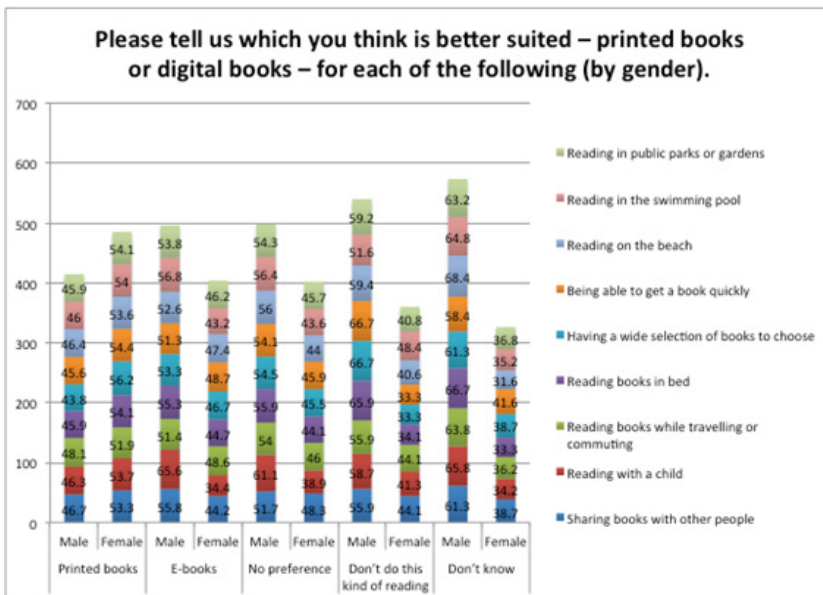


Figure 14: Preference for printed or digital books according to activity by gender

Connection was also one of the main affordances of digital reading. Digital reading is connected reading. According to the survey, the attributes most valued when reading online (Figure 15) where the opportunity to instantly know more about the text's author of the theme, followed by the chance to access other texts and in third place the possibility to save the most relevant parts. Thus we can propose that this connection is more about connecting to information that connecting to people.

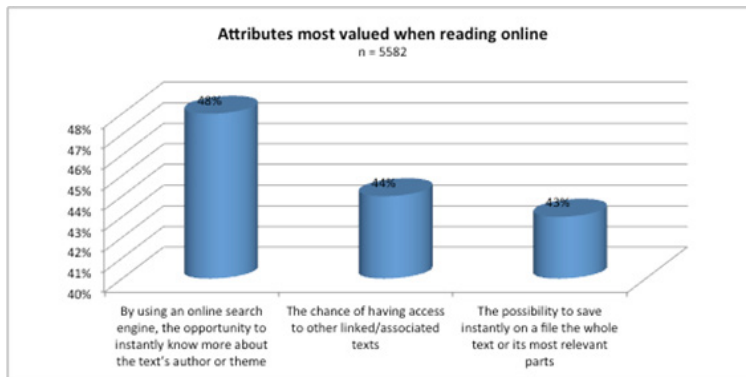


Figure 15: Most valued attributes

When comparing men and women regarding the most valued attributes both genders perform quite closely (Figure 16).

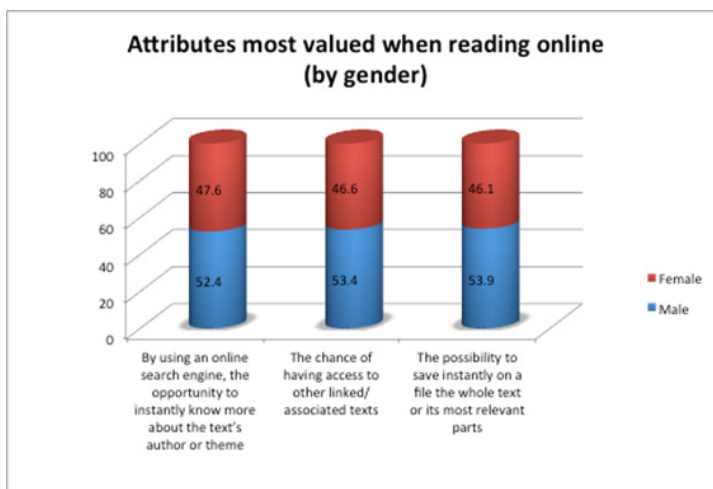


Figure 16: Most valued attributes by gender

As for the less valued attributes (Figure 17) those include comments, sharing and knowing more about other people's activities which reinforces the notion that what is truly important in digital reading is connecting to information and not interacting with others.

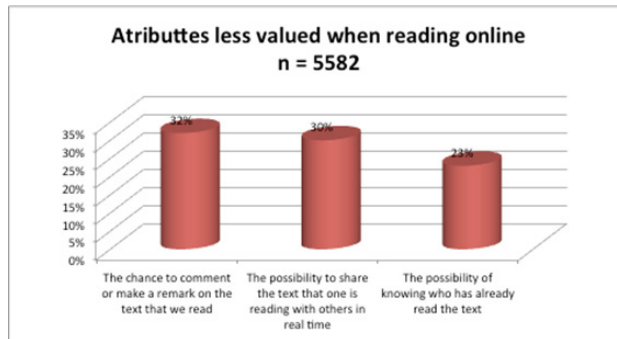


Figure 17: Less valued attributes of online reading

When comparing men and women (Figure 18) connecting to others is less important for men than for women.

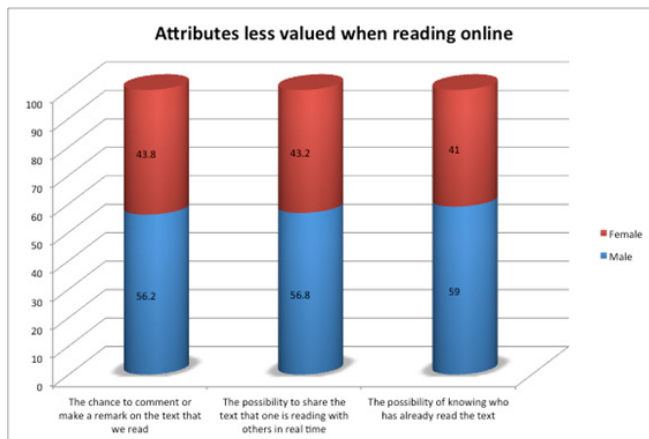


Figure 18: Less valued attributes of online reading by gender

6. GIVING VOICE TO WOMEN

We now focus solely in the female sample and on women's practices and expectations regarding digital reading. When we focus exclusively on

women, we can conclude that the ability to read text weighs in their purchasing decision when purchasing a device with Internet access (Figure 19): 58.2% of women respond affirmatively.

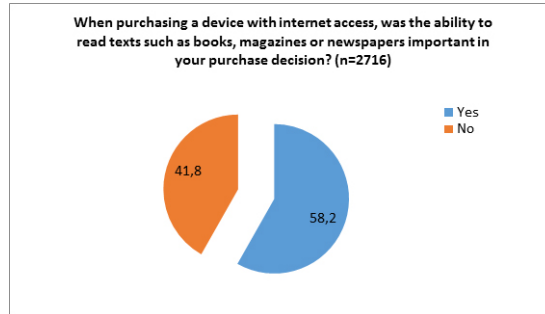


Figure 19: Influence of digital reading in women's purchasing decisions of devices with Internet access

Already a majority of women have read a book in digital format (Figure 20).

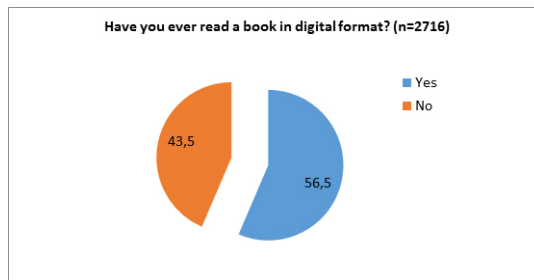


Figure 20: Women's digital book reading

Schooling matters more than age in regards to reading a book in digital format (Figures 21 and 22). As showed by the data, the gap between eBook reading at age 15-24 and those women above 55 is not as wide as the gap between women with primary and secondary education and women attending college or with a college degree.

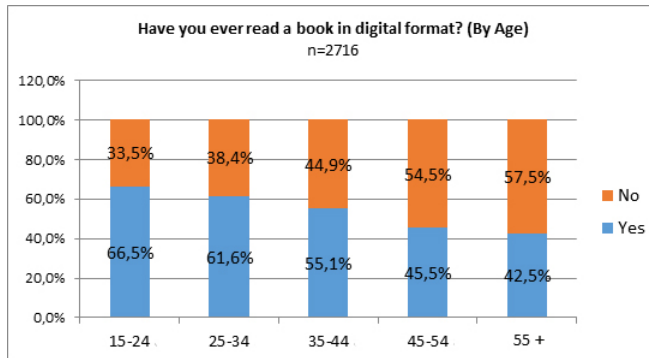


Figure 21: Women's eBook reading by age

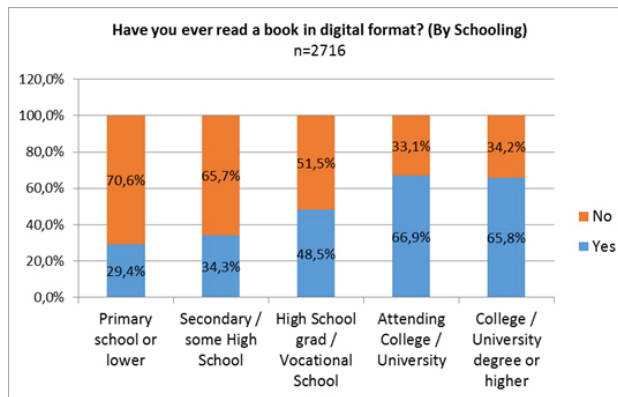


Figure 22: Women's eBook reading by schooling

An analysis by country/ region (Figure 23) shows that in BRICS countries (Brazil, Russia, India, China and South Africa) women are strongly engaged in eBook reading. France and Germany, on the other hand, are the countries where a lower percentage of women have already read a book in digital format.

In countries where access to printed book is more difficult, especially for women, there is a strong interest and uptake of eBooks.

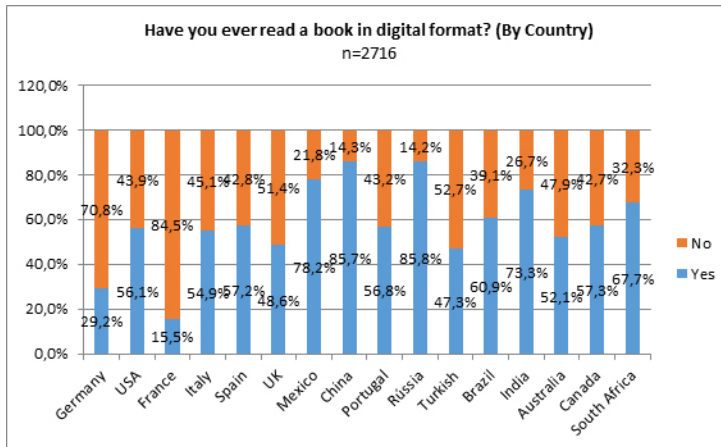


Figure 23. Women's eBook reading by country

7. CONCLUDING REMARKS

We are facing new ways of reading and new readers, because new devices bring with it new affordances. Digital content allows to renegotiate reading practices, and it seems that these new modes of reading are transforming readership, but also the way we engage with our digital devices. The ability of a device with Internet access to read texts is considered an important characteristic and it tends to influence purchase decisions, which evidences the growing importance of digital reading, particularly in contexts of mobility. Future expectations in regard reading are also paradigmatic of the change that is occurring, digital reading practices tend to gain importance and to be more and more complementary to paper ones.

But, what does digital reading mean for women? When comparing men and women we can see that women fall slightly behind in the uptake of digital reading, especially because they have less access to digital devices. It is an opportunity to engage men with reading but it can hinder women's participation. Previous studies⁵ had already shown that boys perform better than girls in digital reading and our results show that men are more interested. Nevertheless the gap can easily be corrected through adequate public policies and publishing strategies that take into consideration women's interests and lifestyles.

⁵ Like the triennial international survey Programme for International Student Assessment (PISA) which aims to test the skills and knowledge of 15-year-old students and evaluate the educational system.

In this chapter we tried to bring forward some of specificities of women digital reading practices by looking at differences between women. When comes to these differences, age matters but schooling matters the most. Also the pace of change is different in each region because the access to digital devices determines the adoption of digital reading practices, and women still have less access. Nevertheless in countries where access to printed books is also harder we witness a strong digital reading uptake from women. We consider that this focus on women's practices needs further development. We can argue that the research highlights that digital reading brings up new affordances and a specific gender-technology relation that needs further research. We need to conduct qualitative studies that could provide a wider perspective of women's lives, how digital reading intertwines with their changing needs across life stages and life roles and how different socio-technical contexts impact their choices and their practices.

It is important to understand what kind of relationship are women building with digital reading and if this relationship is being shaped by the traditional gender-role stereotypes that frame women-technology relations. Focusing on women, addressing women and empowering them means, from this viewpoint, offering them tools, designs, contents, that go further than a re-enactment of the hegemonic discourse.

REFERENCES

- Balsamo, A. (1996). *Technologies of the Gendered Body: Reading Cyborg Women*. Durham, North Carolina: Duke University Press.
- Bar, F.; Pisani, F. & Weber, M. (2007). Mobile Technology Appropriation in a Distant Mirror: Baroque Infiltration, Creolization and Cannibalism. Paper presented at the *Seminario sobre Desarrollo Económico, Desarrollo Social y Comunicaciones Móviles en América Latina* [Online]. Retrieved from http://pdf.aminer.org/000/243/920/just_what_do_the_youth_of_today_want_technology_appropriation.pdf
- Baron, N. (2013). Do mobile technologies reshape speaking, writing, or reading? *Mobile Media and Communication*, 1(1), 134-140.
- Berg, A.-J. & Lie, M. (1995). Feminism and Constructivism: Do Artifacts Have Gender? *Science, Technology & Human Values*, 20(3), 332-351.
- Berker, T.; Hartmann, M.; Punie, Y. & Ward, K.J. (Eds.) (2006). *Domestication of Media and Technology*. Maidenhead: Open University Press.

- Butler, J. (1990). *Gender Trouble: Feminism and the Subversion of Identity*. New York /London: Routledge.
- Butler, J. (1993). *Bodies That Matter*. New York: Routledge.
- Butler, J. (2004a). Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory. In H. Bial (Ed.), *The Performance Studies Reader* (pp. 154-166). London/New York: Routledge.
- Butler, J. (2004b). *Undoing Gender*. Boca Raton, FL: Routledge Taylor & Francis Group.
- Callon, L. & Rip, A. (Eds.). (1986). *Mapping the Dynamics of Science and Technology*. Basingstoke: Macmillan.
- Cardoso, G. (2015). Conclusão: Ler. In G. Cardoso (Org.), *O Livro, o Leitor e a Leitura Digital* (pp. 525-528). Lisbon: Fundação Calouste Gulbenkian.
- Cardoso, G. & Cameira, E. (2015). A Leitura Digital no Contexto Global e Nacional: Resultados de um Inquérito aos Leitores Digitais em 16 Países. In G. Cardoso (Org.), *O Livro, o Leitor e a Leitura Digital* (pp.227-269). Lisbon: Fundação Calouste Gulbenkian.
- Cockburn, C. (1992). The Circuit of Technology: Gender, Identity and Power. In R. Silverstone & E. Hirsch (Eds.), *Consuming Technologies: Media and Information in Domestic Spaces* (pp. 32-48). London/New York: Sage.
- Coulthard, D. & Castleman, T. (Eds.) (2006). *Encyclopedia of Gender and Information Technology* (Vol. 1). Hershey, London, Melbourne and Singapore: Idea Group Reference.
- Doane, M. A. (1999). Technophilia: Technology, Representation, and the Feminine. In J. Wolmark (Ed.), *Cybersexualities. A Reader on Feminist Theory, Cyborgs and Cyberspace* (pp. 20-34). Edinburgh: Edinburgh University Press.
- Haraway, D. (1991). *Simians, Cyborgs and Women. The Reinvention of Nature*. New York: Free Association.
- Harding, S. (1986). *The Science Question in Feminism*. Ithaca /London: Cornell University Press.
- Hopkins, P. D. (Ed.) (1998). *Sex/Machine. Readings in Culture, Gender and Technology*. Bloomington /Indianapolis: Indiana University Press.
- Ihde, D. (2002). A Phenomenology of Technics. In R. C. Scharff & V. Dusek (Eds.), *Philosophy of Technology - The Technological Condition: An Anthology* (pp. 490-507). London: Blackwell Publishing.

- Latour, B. (1987). *Science in Action: How to Follow Scientists and Engineers through Society*. Cambridge: Harvard University Press.
- Law, J. & Hassard, J. (1999). *Actor-Network Theory and After*. Oxford: Blackwell.
- OECD (2014). *Strong Performers and Successful Reformers in Education – Lessons from PISA for Korea*. OECD Publishing. Retrieved from <http://dx.doi.org/10.1787/9789264096660-en>
- Pinch, T. & Bijker, W. E. (1987). The Social Construction of Facts and Artifacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other. In W. E. Bijker; T. P. Hughes & T. Pinch (Eds.), *The Social Construction of Technological Systems* (pp. 17-50). Cambridge: MIT Press.
- Plant, S. (1997). *Zeros+Ones. Digital Women + the New Technoculture*. New York, London/Toronto/Sydney/Auckland: Doubleday.
- Plant, S. (2000). On Thematrix: Cyberfeminist Simulations. In G. Kirkup, L. Janes, K. Woodward & F. Hovenden (Eds.), *The Gendered Cyborg: A Reader* (pp. 265-276). London/New York: Routledge.
- Silveirinha, M. J. (2008). A Representação das Mulheres nos Media. Dos Estereótipos e “Imagens De Mulher” ao “Feminino” no Circuito da Cultura. In J. P. Esteves (Ed.), *Comunicação e Identidades Sociais. Diferença e Reconhecimento em Sociedades Complexas e Culturas Pluralistas* (pp. 103-130). Lisbon: Livros Horizonte.
- Silverstone, R. & Hirsch, E. (Eds.) (1992). *Consuming Technologies: Media and Information in Domestic Spaces*. London/New York: Sage.
- Stanley, A. (1998). Women Hold up Two-Thirds of the Sky: Notes for a Revised History of Technology. In P. D. Hopkins (Ed.), *Sex/Machine. Readings in Culture, Gender and Technology* (pp. 17-32). Bloomington/Indianapolis: Indiana University Press.
- Tong, R. (2009). *Feminist Thought. A More Comprehensive Introduction*. (3rd ed.). Charlotte: University of South Carolina.
- Turkle, S. (1984). *The Second Self: Computers and the Human Spirit*. London: Granada.
- Turkle, S. (1995). *Life on the Screen: Identity in the Age of the Internet*. New York: Simon & Schuster.
- Wajcman, J. (1991). *Feminism Confronts Technology*. Pennsylvania: Pennsylvania State University Press.

- Wajcman, J. (2000). Reflections on Gender and Technology Studies: In What State is the Art?. *Social Studies of Science*, 30(3), 447-464. Retrieved from <http://www.jstor.org/stable/285810>
- Wajcman, J. (2004). *TechnoFeminism*. Cambridge: Polity Press.
- Wajcman, J. (2007). From Women and Technology to Gendered Technoscience. *Information, Communication & Society*, 10(3), 287-298.
- Wajcman, J. (2009). Reflections on Gender and Technology Studies: In What State is the Art? In R. Mansell (Ed.), *The Information Society. Critical Concepts in Sociology* (Vol. 4) (pp. 291-309). London: Routledge.
- West, C. & Zimmerman, D. H. (1987). Doing Gender. *Gender and Society*, 1(2), 125-151.
- West, C. & Fenstermaker, S. (1995). Doing Difference. *Gender and Society*, 9(1), 8-37.