

DIGITAL NATIVES. NEW TECHNOLOGIES IN EVERYDAY LIFE AND FOR ACADEMIC STUDY

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Abstract: In the context of a digital age, access and use of new technologies by digital natives students studying in our schools led to a radical rethink of how high school education uses modern technology to deliver education. In these types of empirical researches it is necessary to find out directly from these digital natives about their actual technology practices in order to understand how they are transforming their social and academic lives and, more importantly, how they are shaping technology to suit their lives and needs. Education researches new dimensions at all its levels, by adopting new technologies in order to deeper support modern possibilities of learning that define the new generations: a high degree of digital capabilities, the capacity to accomplish various tasks, constant connectivity, literacy in multiple media, the need for speed in data transmission, an education for delivery of information, as well as a unique approach towards the learning system. This paper analyzes the characteristics of today's students in connection with the new learning realities that require new technologies for new learning-style. It is meant to focus on the technology access and practice in academic study in high school education and to highlight the difference between technologies and activities undertaken as part of student's everyday life in contrast to their academic study.

Keywords: digital natives, net generation, technology, high school education

1. Introduction

In the context of a digital age and a knowledge society, the development of new information technologies recorded a significant impact on processes of interpersonal, social communication, the economic expansion, political and governmental protocols and not least, the educational process.

Study results presented in the literature (Kennedy et al., 2008; Bullen et al., 2008; Bennett et al., 2008; Nagler and Ebner, 2009; Jones and Cross, 2009; Sonck et al., 2011; Ólafsson et al., 2013) argue that modern technological developments led to the formation of a new generation of young people: digital natives.

They confirm the existence in our institutions of generations of students experienced in terms of technology, generations that grew almost with unlimited access to information and communication technology as part of their everyday life.

Being proposed by Mark Prensky (2001a), the term „digital native” began to represent the young generation born after 1980 generally characterized by literature (Barnes et al, 2007; Prensky, 2004; Oblinger and Oblinger 2005; Dede, 2005) as having features such as a high level of digital skills, multitask abilities, digital literacy, constant connectivity in order to keep in touch with friends in the virtual environment, the need for speed in providing information, a culture enhanced for exchanging informations and an unique attitude to education.

2. Characteristics of Digital natives

Digital natives share a common global culture defined less by age and more by experience in digital technology.

The rapidity with which children and young people gain Internet access through new technologies (smartphones, tablets, miniPC, laptops etc.) is considered a phenomenon without precedent in the history of technological innovation.

Parents, teachers and children acquire digital abilities, learning how to use new technologies with everything they offer and how to find them the best utility in daily activities.

Livingstone in the study *The perspective of European children* says "Stakeholders such as government, schools, the industry of new technologies, organizations dealing with child welfare, seek to maximize online opportunities and minimize risks associated with the use of new technologies and bad thing from Internet" (2011, 12).

In the majority of European countries are being implemented various strategies aimed at promoting participation and digital literacy in schools (Ólafsson et al., 2013; Farrukh et al., 2014).

Also, institutions of private education provide opportunities for learning, participation, creativity, and communicating with NTI.

Students cannot be educated for today world, because this is in a continuous transition, it will not exist when they are grown up and nothing allows us to anticipate how it will be their world. Then it is necessary to learn them how to adapt to it.

Previous research (Livingstone et al., 2011; Livingstone, Haddon, 2009; Livingstone, Helsper, 2010; Guan, Subrahmanyam, 2009; Polyconseil, 2012) argue that because of this ubiquitous digital medium and high volume of interaction with these new information technologies, the young people think and process information very differently from their predecessors.

The supporters of generation of digital natives say that a consequence of the exploitation of the technology is the development of new skills and cognitive learning styles.

These new learning styles are highlighted by features such as” "fluency in the use of multiple types of media; valuing each type of communication, activities, experiences; learning by searching, synthesizing and collective analyzing in the detriment of individual documentation from a single source; active learning based on experiences how include frequent opportunities for reflection; non-linear expression of thought, interconnected; personalized learning experiences for individual needs and preferences." (Oblinger and Oblinger 2005, 48)

There are a considerable number of research studies that describe how today's young people in the schools are studying, having in the middle digital natives, called also Internet generation, Google generation or Generation Y.

All these concepts are used to highlight the significance and importance of modern technology present in the lives of young people (Gibbons, 2007).

3. New Technologies in students life

For some researchers, NTI have a defining character in the life of the young generation, which suggests a fundamental shift in how it communicates, share, create and learn. They argue that this change has profound implications for education at every level: pre-school, primary, secondary or university. (Prensky, 2001a; Rainie, 2006; Gibbons, 2007; Underwood, 2007; Jones and Shao, 2011).

An important aspect highlighted in the literature is that in the context of the modern era not all young people are digital natives, differences being justified cultural and educational, and less by age.

One of the biggest challenges is to understand and correctly identify who is digital native and who is not and what that means. For example, adults are more experienced in terms of technical, due to socio-economic conditions, personal interests than some children.

Furthermore, a way of understanding digital natives is an analysis of how they use technology to meet immediate environment and to initiate action for personal and social change, to take actions in academia and leisure.

Results of previous research (Shah and Abraham, 2010; Brown,2012) argue that the optimal indicators to determine whether someone is a digital native or not are: analyzing generation that fits, experience in handling new technologies and the area of use.

Based on these indicators, and relating to the use of technology, we can define digital natives *as a person born in and after 1980, who comes from an environment rich in technical supports, having access to a wide range of new technologies that use Internet services through modern technology as the primary source for obtaining information, safe technologies, uses multiple devices simultaneously and use the Internet to conduct a series of activities.*

Theoretical studies (Prensky, 2001; Tapscott, 1998; Tapscott, 2008; Thomas, 2011; Buckingham, 2011) which places digital native to the "knower of technology", which has different learning styles and preferences are complemented by evidence from empirical research (Bennett, Maton and Kervan, 2008; Livingstone and Helsper, 2010; Livingstone et al., 2011; Ólafsson et al.,2013) confirming the presence of a sophisticated set of skills and knowledge in relation to modern technology.

The analysis of all names that this generation has known over time, Jones et al. (2010: 723) clarifies in the paper *Net Generation or Digital Natives*, that despite little distinction, terms such as *digital native, Net generation, generation Y, Mileniar* are used as having the same meaning.

Regardless of the starting point in researching generation of digital natives, supporters concluded as common the fact that young people belonging to this generation behave and think differently than older generations, so-called digital immigrants. Mark Prensky (2001a) shows clearly the distinction between these views: "We see the future through the eyes of an cyber immigrant or a native cyber?"

A comparative analysis of recent literature indicates that the following eight assertions about digital natives continue to characterize the young people of Generation Net as: (1) *with*

new ways of knowing and being, (2)being leaders of a digital revolution that transforms society, (3) being originally and inherent technological intelligent, (4) being capable of multi-tasking, (5) being oriented teamwork and collaborative (6) being native speakers of technologies languages, (7) embracing gaming, interaction and simulation, (8) requiring immediate gratification and (9) reflecting and responding to the knowledge economy. (Prensky, 2001; Bennett et al., 2008; Kennedy et al., 2010; Smith, 2012)

Based on indicators such as *age* (Bennett et al., 2008; Jones and Healing, 2010), *experience in handling modern technology and the Internet* (Hargittai and Hinnant 2008; Howard et al., 2001) *and the duration of use* (Polyconseil, 2012), the digital natives can be defined as a person born in and after 1980, who comes from an environment rich in technical supports, having access to a wide range of new technologies that use Internet services through technology modern as the primary source for obtaining information, unsafe technologies, uses multiple devices simultaneously and use the Internet to conduct a series of activities.

We are at a crossroads, and there are two possible ways in which you might choose - one where we could destroy what is important on modern technology and Internet, and how young people use it, and one in which are smart choices and lead to a bright future in the digital age. The stakes of our actions today is very high.

The choices we make now will govern children's future: how they shape their identity, protect their privacy, keep the information secure and safe; how they create, understand and shape the information, underlying the decision in their generation; how they learn, innovate and take responsibility as citizens.

One of these ways seeks to limit creativity of digital natives, self-expression and innovation in the public and private spheres; on the other hand, embrace these things, while minimizing the dangers that come with a new digital era. The student of the future will be an explorer. For this he must be aware of the importance of learning through research, through discovery, of the importance of making connections between different subjects.

There is a reluctance to realize the potential of digital technology and the way digital natives could use it in the future. Parents, teachers, psychologists, all have reason to worrying about the digital environment in which young people spend much of their time. Still not found optimal solutions that protect young people from the obvious dangers, premature exposure.

The dangers, risks, temptations exist, and literature (Livingstone et al., 2011; Olafsson et al., 2013) presents them as cyber bullying website, predators online, addiction Internet, online pornography, kidnapping risk - when they spend hours a day in a digital environment, uncontrolled, addiction to violent video games, access to pornography and images that incite violence and hatred.

Digital's native parents think seriously about both challenges and opportunities of digital culture. Although they are concerned about the risks of exposure in the online space, they see a promise in how digital natives interact with digital information, expressing in social media, create new forms of art and identify new business models. (Ólafsson et al., 2013)

This generation is defined by the word "different". And different means firstly an unprecedented access to technology. And technology is the particularity that makes them unique.

BIBLIOGRAPHY:

1. Bennett, Sue, Maton Karl and Kervin Lisa. 2008. "The "digital natives" debate: A critical review of the evidence."*British Journal of Educational Technology*. 39(5): 775–786.
2. Brown, John Seely. 2012. "Learning in the Digital Age". In *The Internet & the University: Forum for the Future of Higher Education*. Eds. Michael Devlin și Joel Meyerson: 65–91.
3. Buckingham, David. 2011. "Foreword". In *Deconstructing digital natives: Young people, technology and the new literacies*. Ed. Michael Thomas: iv–xi. New York: Routledge.
4. Dede, Chris. 2005a. "Planning for neomillennial learning styles".*Educause Quarterly*. 28(1): 7-12.
5. Farrukh, Adina, Sadwick Rebecca and Villasenor John. 2014. "Youth Internet Safety: Risks, Responses and Research Recommendations."*Center of Technology Innovation at Brookings*: 1-18.
6. Gibbons, Susan. 2007. "Redefining the roles of Information professionals in Higher education to engage the net generation". Paper presented at *Educause*, Australasia. Available: http://www.caudit.edu.au/educauseaustralia07/authors_papers/Gibbons2.pdf

7. Guan, Shu-Sha Angie and Subrahmanyam Kaveri. 2009. "Youth Internet use: risks and opportunities." *Child and adolescent psychiatry*. 22(4): 351 – 356.
8. Hargittai, Eszter and Hinnant Amanda. 2008. "Digital Inequality. Differences in Young Adults' Use of the Internet". *Communication Research*. 35 (5): 602-621.
9. Hargittai, Eszter. 2010. "Digital Natives? Variations in internet skills and uses among members of the Net Generation". *Sociological Inquiry*. 80(1): 92-113.
10. Helsper, Ellen Johanna and Eynon Rebecca. 2010. "Digital natives: where is the evidence?" *British Educational Research Journal*. 36(3): 502-520.
11. Howard, Philip N., Rainie, Lee and Jones Steve. 2001. "Days and Nights on the Internet: The Impact of a Diffusing Technology". *American Behavioral Scientist*. 45: 383–404.
12. Jones, Cristopher and Healing Graham. 2010. "Net generation students: Agency and choice and the new technologies". *Journal of Computer Assisted Learning*. 26(5): 332–343.
13. Jones, Cristopher and Shao Binhui. 2011. *The net generation and digital natives: implications for higher education*. York, UK: Higher Education Academy.
14. Kennedy, Gregor E., Judd, Terry S., Dalgarno, Barney și Waycott Jenny. 2010. "Beyond natives and immigrants: Exploring types of net generation students". *Journal of Computer Assisted Learning*. 26(5): 332–343.
15. Livingstone, Sonia and Haddon Leslie. 2009. *EU Kids Online: Final Report*. London.
16. Livingstone, Sonia, Haddon Leslie, Gorzig Anke and Olafsson Kjartan. 2011. The perspective of European children. Full findings and policy implications from the Eu Kids Online survey of 9-16 year olds and their parents in 25 contries, London, UK: LSE - London School of Economics and Political Science.
17. Livingstone, Sonia and Helsper Ellen Johanna. 2010. "Balancing opportunities and risks in teenagers' use on the internet." *New Media and Society*. 12(2): 309 – 329.
18. Livre Blanc, Polyconseil. 2012. Digital Natives et nouveaux usages médias: comment s'y adapter? (Octobre 2012).
19. Oblinger, Diana G. and Oblinger James L. 2005. "Is it age or IT: first steps towards understanding the net generation." In *Educating the Net Generation*, eds. D. Oblinger and

- J. Oblinger: 2.1-2.20. Retras Iulie 21, 2014 de la
<http://www.educause.edu/educatingthenetgen>.
20. Ólafsson, Kjartan, Livingstone Sonia and Haddon Leslie. 2013. *Children's use of online technologies in Europe: a review of the European evidence base*. London, UK: EU Kids Online.
21. Palfrey, John și Gasser Urs. 2008. *Born digital: Understanding the first generations of digital natives*. New York, SUA: Basic Books.
22. Palfrey, John, Gasser Urs, Maclay Kevin C. și Beger Hans G. 2011. *Digital natives and the three divides to bridge*. New York, SUA: The State of the World's Children.
23. Prensky, Mark. 2001a. "Digital Natives. Digital Immigrants". *On the Horizon*, MCB University Press. 9(5): 1 – 6.
24. Prensky, Mark. 2001b. "Digital natives, digital immigrants, part 2: Do they really think differently?" *On the Horizon*, MCB University Press. 9 (6): 1-6.
25. Prensky, Mark. 2004. *The emerging online life of the digital native: What they do differently because of technology and how they do it*. Educause: 1 – 14.
26. Smith, Edward E. 2012. "The digital native debate in higher education: A comparative analysis of recent literature". *Canadian Journal of Learning and Technology*. 38(3): 1-18.
27. Tapscott, Don. 1998. *Growing up digital: The rise of the net generation*. New York: McGraw-Hill.
28. Tapscott, Don. 2008. *Grown up digital: How the Net generation is changing your world*. New York: McGraw-Hill.
29. Thomas, Michael. 2011. "Technology, education, and the discourse of the digital native: Between evangelists and dissenters". In *Deconstructing digital natives: Young people, technology and the new literacies*. Ed. M. Thomas: 1–11. New York: Routledge.
30. Underwood, Jackie. 2007. "Rethinking the Digital Divide: impacts on student tutor relationships". *European Journal of Education*. 42(2): 213-222.