

Digital natives in Brazil and their behavior in front of the screens

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ABSTRACT

This paper is dedicated to the study of internet, cell phones, videogames and television in relation to its uses, valuations and appropriations by children and young Brazilian people in their social interaction environments in the age of digital screens. The study is done based on wide collection of quantitative data organized in four analysis axes, from where the investigation of this so-called *interactive generation* brings contributions beyond the understanding of emergent digital literacies and reveals traces of a contemporaneity of convergence, in which the construction of knowledge and the playful of entertainment are in constant synergy.

Keywords: Digital literacy, children and young, screens

INTRODUCTION

Cultural contemporary platforms support the emergence of new logics, semantics and literacies (set of abilities and/or skills established due to the use of different technologies) in a society that do not involves anymore the transmitter-receiver duality of the last century. Communication theorists are now situated in a *new economy* locus, which presupposes the reciprocity of communication actions, new business models and new practices (Passarelli & Junqueira, 2012).

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In a transversal environment of Information and Communication Technologies (ICTs), its "actors-network", as well-defined by Latour (2005), use hypertext, multimedia, interactivity, wikis, blogs, personas, social networks and folksonomies, conceiving them as transforming agents in a play where producer and consumer are shaped in the picture of *prosumer* (Tofler, 1980) and in the consequently redefinition of their roles in a connected society.

This research emerges in this contemporary hybridism context and seeks to investigate aspects related to the use, valuation, possession and access to analogical and digital contemporary screens in a brazilian approach. The public of interest includes children and teenagers from 6 to 18 years old (digital natives), also named as interactive generation in this research. In this sense, these actors are analyzed in home and school environment, in situations in which they communicate, learn and entertain through mediation of computer/internet, cell phones, videogames and television.

This generation has the responsibility of composing new arrangements for the future society, which is permeated of logics, semantics, behaviors and practices that reconstruct themselves in exponential speeds in the midst of the expansive universe of contemporary digital platforms (Junqueira & Passarelli, 2011). Thus, prospecting this generation interactive behaviors in Brazil becomes a duty for a future project of education, culture and citizenship.

This study expresses, for the first time, data for Brazil of a research launched in Spain in1995, from a partnership between University of Navarra and Telefónica Foundation. Thus, in this Brazilian edition, data were collected by Instituto Brasileiro de Opinião Pública e Estatística (Ibope) and Núcleo de Apoio à Pesquisa (NAP) Escola do Futuro/USP, that worked in the interpretation and analysis of data previously collected during 2010 and2011. This paper presents a new reading under the research findings commented and published in the book *Gerações Interativas Brasil: crianças e adolescentes diante das telas* (Passarelli & Junqueira, 2012), being organized from four thematic axes: penetration and usage (possession and access) of interaction screens, convergence and simultaneity in using the screens, home and schools' mediations and geographic and regional's' mediations (infrastructure, culture and socioeconomic conditions).

DATA COLLECTION METODOLOGY

Several methodological approaches are possible when studying ICTs impacts, mainly in contexts of countries in development (Angeluci & Galperin, 2012; Bailey, 2009; Haseloff, 2005). The complexity of socioeconomics and cultural scenarios leads, however, to privilege the application of statistics surveys that can be associated with others data collection methodologies (Unctad, 2011).

In this research approach, a quantitative methodology was used through a structured questionnaire developed by University of Navarra since the first edition of this research. In this way, the collection carried out between 2010 and 2011 revealed the original sample, adapted by Ibope for a sample of about 10,000 respondents, based on the School Census of 2007. The universe searched is comprehended by children and teenagers between 6 and 18 years old that attended private and public schools in the country, from urban and rural areas of North, Northeast, Central West, Southeast and South regions. Private rural schools were excluded as being a non-representative amount for the sample.

The viability of this mapping occurred from the distribution of two on-line questionnaires – one specific for the age range of 6 to 9 years old and other for 10 to 18 – responded anonymously by students in computers from the schools. Two sets of questionnaires were considered: one for 6 to 9 years old children with 60 questions, and another one for those aged from 10 to 18 years old, containing 167 questions. Each school received a specific code for its identification. In the end of this diagnostic, all participant schools received as counterparty a set of personalized information totally confidential. Data were returned to teachers, students, parents and responsibles, so that they could take the maximum advantage of the generated knowledge in favor of education improvement correlated to the use of ICT.

The sample was based in the data representativeness in front of several variables: genre, age, geographical region and location (urban/rural). Thus, from a total of 18,000 collected responses, the statistic adjustment resulted in a valid set of sample of 1,948 children and 2,271 teenager's respondents.

The questionnaires were anchored in the Educarede¹ project web site and the respondents belonged to schools integrating the project in all the country. The final result was the book "Gerações Interativas Brasil: crianças e adolescentes diante das telas" (Passarelli & Junqueira, 2012)², published in 2012. For this paper purpose, a new data reading is presented from four axes, in which analysis are situated in theoretical context of Latin authors such as Martín-Barbero (1997), Castells (1999) and Canclini (2006), beside others scholars, as Latour (2005) that resize the view over their research objects from new systematization, storage and representation dynamics and fruition mediated by technological and cultural contemporary scenario (Barros, 2011).

THE DIGITAL NATIVE

The digital native became more evident from 2000, as teachers and specialists in education area realized that a new generation of students started to be part of educational institutions. Those young people were born between 1980 and 1994 and, being immersed into the new media culture, consider it as integral part of their daily activities using them differentially if compared with previous generations, as well as their teachers. This perception caused and still generates great impact and conflict, as fundamental changes became needed in order to accommodate these new skills and interests. Tapscott (1998) classifies this generation as *net generation*, associating these young people to familiarity and confidence in using of information and communication technologies.

Prensky is centered in the dichotomy between the concept of *digital native* and *digital immigrant*. If for digital native the appropriation of new media happens in a more fluid and natural way, the older generation pass now by the process of learning a new language: "today's older folk were *socialized* differently from their kids (...) A language learned later in life, scientists tell us, goes into a different part of the brain" (Prensky, 2001: 2).

Digital immigrants can be described as those ones in a learning process and adaptation of aspects and characteristics that are genuine and natural to digital native, such as: the reception of information in a rapid and agile way; the preference for

¹Educational websitefor teachers and studentsof public High Schools and other educational institutions. ² The full book can be found through this link: http://ccvap.futuro.usp.br/gerinter2012.pdf>. Accessed in: 27 mar. 2013.

random process of content access; the trend of imagery over the textual; the carrying out of multitask activities and parallel process, among others.

Jenkins (2006), however, seems to present a very proper approach when think about emerging literacies as a paradigm to better understand this generation of digital natives immerses in a participatory culture. Inspired by the assumptions of collective intelligence, as pointed by other authors (Castells, 2002; Levy, 2006), Jenkins suggests that children and young people take benefits of eleven skills³ capable to establish the transition of a traditional literacy toward one focused in the individual expression and community commitment. These skills are so in the midst of cultural and social skills development established under collaborative processes and network – the basis of contemporary hybridity.

HYBRIDISM AND LITERACIES AS THE STARTING POINT

The definition of the analysis axes seeks support in the roots of the contemporary hybridism, as in a technology-based society there is no space for a compartmentalized vision of knowledge so having to admit "the hybridism and current media convergence detecting permanence, impermanence and new paths" (Passarelli & Junqueira, 2012: 18).

In these times of mediation and technological convergence, the network approach evidenced by Castells (1999) become essential to understand the movement and organization of people searching for dialoging, sharing and simultaneous exchanging. This process that was being built during the history culminates, necessarily, in the concept of identity. The permanent excitation state many times attributed to the emergence of technologies in everyday human has gained approaches questioning the relations among people and technologies; recent publications tangent greatly questions that this study presents – as the individual and solitary use of the screens, addressed by Turkle (2011).

Another relevant point for the configuration of analysis axes refers to the contribution of digital literacies. Overcoming the term concept linked to literacy in the sense of formal education and learning – literacies here are understood as "a continuum

³ Play, Performance, Simulation, Appropriation, Multitasking, Distributed Cognition, Collective Inteligence, Judgement, Transmedia Navigation, Networking and Negotiation.

and permanent evolution process" (Passarelli & Junqueira, 2012:24), in which the ability of communicate and interact using ICT become the base of a network society. As well remember Passarelli and Junqueira (2012), if the literacy, in a first moment, refers more to the ability of reading and comprehending the transmissions media of information and knowledge in the capitalism industrial age, today requires from individuals a number of abilities to interact and select, in a multimedia way, the produced and consumed content in contemporary screens – TV, games, computer with internet and cell phone, with major distinction.

In this sense, the contemporary hybridism and emergent literacies are established for this study as a fertile ground of elements that compound the web of relationship among men and ICT, in which aspects as possession, access, uses and appropriations of studied screens are included (Passarelli e Azevedo, 2010). The analysis axes presented in Table 1 are inserted in this context, in which the protagonism of television, computer/internet, game and cell phones in the connected and convergent everyday of Brazilians children and teenagers are sought to be evidenced.

Analysis Axes	General Aspect
Penetration and use (possession and access) of interaction screens	 Significant popularization of computers and internet in households, as well cell phones, television and games. Ensuring the access through public places.
Convergence and simultaneity using the screens	 Expanded use of screens from the new demands of interactive generation, as well the rapid innovation process of them. Existence of multiple interaction resources. Running of different tasks in various screens, simultaneously. Protagonism of mobile screens as excellence convergence devices.
Home and schools' mediations	 Individualization and solitary behavior in front of the screens Fragmentation of home space according with the presence of specific screens in home rooms. Television still seems as the predominant facilitator equipment of family socialization. Differences in control and surveillances of content accessed according with genre. Distincts interaction profiles according with genres and age range. Differences in relation to father and mother. Differences in teachers' ´professional abilities using ICT in schools environment. Important participation of teacher in the first contact of children with internet.
Geographical and regional's mediations (infrastructure, culture and socioeconomics conditions)	 Relevant heterogeneity in infrastructure between rural and urban which determine habits and uses. Socioeconomic differences create gap of screen's use and possession among the macro- regions of the country. Infrastructural restrictions determine a smaller use of technologies in rural area than in urban area.

$\label{eq:table1} Table \ 1- Analysis \ axes \ and \ general \ aspects$

Source: Authors

Penetration and use (possession and access) of interaction screens

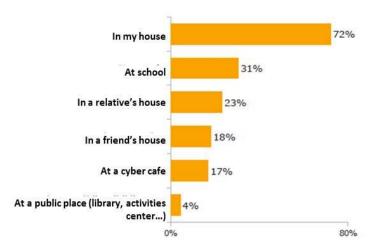
Historically, television is the most influent screen in Brazilians home. Since the launch of the first telecommunication network in Brazil, during the government of President Getúlio Vargas, TV became the screen which facilitates the creation of a national identity (MATTOS, 2002). In the fifties, when the first equipments where introduced in national territory by Assis Chateaubriand, the population was experiencing the transition from rural environment to the cities and was characterized by low literacy and lack of references of communities rituals that were already consolidated in rural environment. Television began to contribute when offering the population an information and entertainment channel, based in orality and in comprehension abilities present in the majority population in that time. The influence of this equipment continues nowadays, with home penetration of 96.3% for teenagers and 94.5% for children, as pointed the data collected in the research. It is worthy pointing that TV in the country in inserted in the broadcasting sector which is regulated by the government; although is a public concession, the production field is still strongly dominated by a small number of families.

Games are another screen that revealed to be significant, as according to data are present in 78.7% of children's home and in 62.4% of teenagers. Leading industry considered strategic in United States of America and United Kingdom, games has reached a profit market that go beyond the cinema, until then dominant among the cultural industries. This high penetration reinforce the importance of ludic in the everyday of this public, which priories equipments that provide them interactive experiences– not only for entertainment, but also for school homework and social relations. A similar case occurs with the penetration of cell phones for the interviewed teenagers, in which 74.7% say that have the device (not being that popular with children - 38.8% have cell phones).

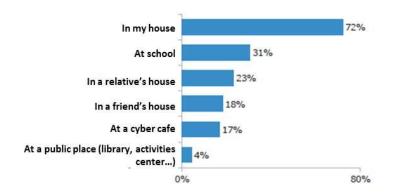
The presence of computer connected to internet in homes of children and teenagers reveals that this technology, even popularized recently, advance significatively as it became more accessible and innovative: 77.7% of children and 83.3% of teenagers have access to computers and internet in their home. The country economic development, allied to the expansion and qualification of internet networks

and cheapening of equipments contribute for a significant rising of these index in the next years.

An item to be emphasized refers to number of access to these interaction screens, which overcome those related to home possession of computer and internet, both for children and teenager population. Graphic 1 and 2 show that social and economic differences tends to be lessened by access from public places as schools and cyber cafes, which corroborate with the literature that emphasize the protagonism of other places, beyond the home, in supplying personal and social needs of digital connection (Gamage & Halpin, 2007; Haseloff, 2005; Lengyel *et al.*, 2006; Mercer, 2006).



Graphic1 – Where are you used to access internet? (Children)



Graphic2 – Where are you used to access internet? (Teenagers)

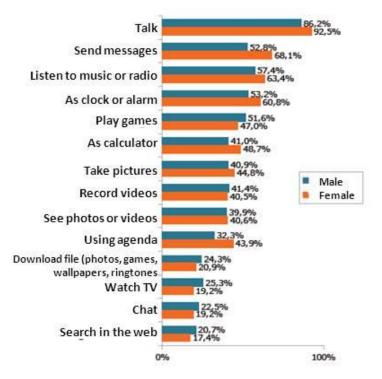
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It is worthy pointing that in Brazil, as in others countries in Latin America, home is the main access local for70% of the youth, children or teenagers; in South America, including Brazil, the second main access local is the school(30.5% in Brazil and 30% in iberoamerican average) (Bringué *et al.*, 2011).

Convergence and simultaneity using the screens

Academic researches and market point to a not so far futurein which most of the equipments will be released to *smart* status. Part of this tendency is justified by the process of screen innovation that are even more ubiquos, integrated and connected. That is the IoT era (*Internet of Things*), term coined in 1999 by Kevin Ashton from MIT (*Massachusetts Institute of Technology*). This word has been established, being common expressions such as *Smartphones*, *Smart TVs* etc. Since then, screens have become even more intelligent as the innovation process confer to them complex computing systems which allow global integration with application and multiple resources. The Internet of Things era has permitted media to agglutinate in a single screen, congregating audio, video and data resources with different interaction dimensions. The children and teenagers public rapidly assimilate these characteristics, making the resources of these screens almost fundamental to theirs everyday activities.

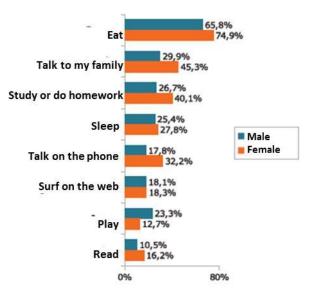
The cell phones – or generally the mobile devices – have conditions to launch in the market equipments with systems even more moderns which follow the interaction demands mainly from youth public. The observation of Graphic 3 shows the expanded use of cell phone screen, which now contemples functions that before were available in specific equipments only. In the same way, television and games expand their interactive dimensions and also became convergence screens, even in a more moderated pace.



Graphic3–For you, the cell phone is mainly for... (Teenagers)

Data analysis reveals that surveyed brazilians teenagers perform, in the same time, different activities and tasks such as eat, talk to family, study, listen to music, among others. Even that neuroscience scientific research has already proved that human being is able to effectively concentrate in a single task, the ability of this interactive generation is on alternating its attention rapidly among interactive actions in various platforms and environments.

Watching TV and surfing the internet, according to the survey, is already a routine activity for 18.2% of interviewed. As the main screen in the majority of use scenarios, TV has shared the youth attention with second screens. The simultaneity is evident when this young, multitask, execute various activities using the multiple resources of these screens.



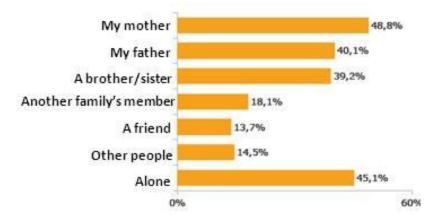
Graphic4–Do you perform some of these activities while watching TV? (Teenagers)

Note that the behavior of the interactive generation with devices assimilates the *anywhere, anytime* concept: 56.8% of respondents allegate that theirs mobile phones stay on even if they are in the classroom, or while studying (24.4%); and while sleeping, 19.8% confirmed that the device stays active.

Home and school's mediations

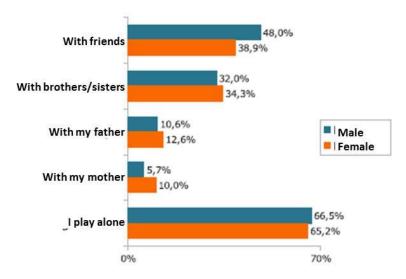
In home environment, one of the most prominent characteristic that can be highlighted from the data is the time dedicated to the screens, as well the individualization process in the use of equipments, mainly when they are installed in children and teenagers' bedrooms. For 76.5% of teenagers, the use of internet is a solitary and individual activity – occurring the same for children, in lower percentage (58.6%).

The mother companion in the act of watching TV is very strong for 48.8% of children respondents, as is shown in Graphic 5. Even so, is valid to observe that the individual performing is high.



Graphic5–When you watch TV you are used to be with... (Children)

Even in actions that presuppose the participation of more people, such as in games, the solitary play is practiced by 39% of the respondent brazilian children. When the play is shared, the children's option is for partners closer to their age range, leaving to a second plan the relative's participation (brothers/sisters -23.2%; friends -18.7%; mother -8.8%; father -12.3%). The tendency is the same in relation to teenagers, as can be seen in Graphic 6.

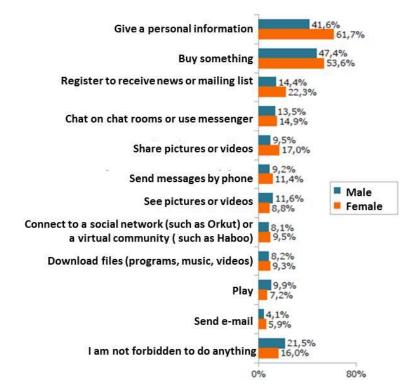


Graphic6–Who are you used to play videogame with? (Teenagers)

The family routine reveals other important aspects associated with the participation of parents in children's activities. Children and teenagers are used to little or no control in relation to the use of screens. Almost ¹/₄ of male teenagers are not

subjected to any control action. Some variable such as gender and age range compose the scenario in which the householders accompaniment is little present.

For female teenagers, there is more control and surveillance than in relation to those ones from male sex, mainly about sharing personal information, pictures and videos (see Graphic 7). In the case of male teenagers, there is more control in viewing videos and pictures.

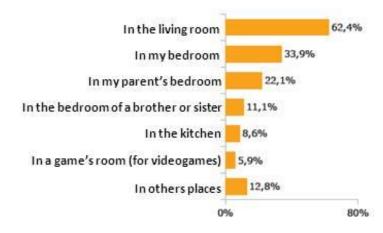


Graphic 7 –According to your parents, what kind of things you are not allowed to do while surfing the web? (Teenagers)

In general, even not being too much present, the parent's action in control and surveillance are frequent claimed from interviewed, mainly when questioned by parents about what they do on-line, of being observed while surfing, of having to perform activities conjunctly and having their history and cookies access checked posteriorly. It is also noteworthy a bigger presence of private use of computers in bedrooms of male teenagers, confirming a higher liberality in terms of control and domestic prohibitions to young men.

Regarding the location of the screens in home environment, television can be highlighted as the equipment that most frequently occupies the living room(62.4% of respondents), being the main screen of family interaction due to cultural habits already 14 Vol. 8 N° 1. Jan./Jun. 2014 – São Paulo – Brasil – B. Passarelli - A. H. Junqueira - A. C. B. Angeluci – p. 01-25

more consolidated and the main space of members' socialization(Graphic 8).For 52.9% of brazilian teenagers interviewed, mothers are frequent companies when watching TV; 40.7% reveal a bigger presence of fathers and 45.6% with other family members (brother or sister).Related to this preference is the fact that it is the largest equipment (and therefore the less mobile).

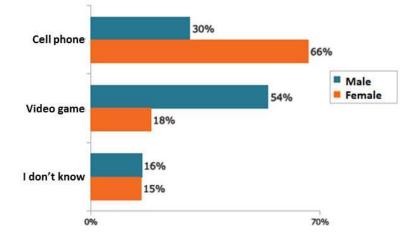


Graphic8–Where are the TV sets in your home? (Children)

It is worth to point out that children and young men seem to identify more with activities related to proactive action: downloading music files, movies, software and play games, whereas girls and female adolescents are apparently more adept in activities facilitating or mediating social connections, like talking on the phone, participate in chat rooms, send messages, among others (Passarelli & Junqueira, 2012). Considering this statement, if we consider video games as an activity predominantly proactive action and the cell as a mediator of social relationships, we clearly see in Figure 9 the reversal of public participation of women and men in each activity profile.

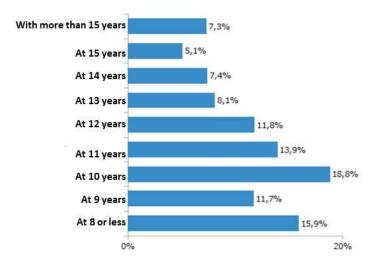
Regarding to the habits and behaviors related to gender, it is worth to point out that male children and teenagers seem to identify themselves more with activities related to proactive action: downloading music files, movies, software and playing games, whereas girls and female teenagers are apparently more adept to activities of facilitating or mediating social connections, like talking on the phone, participating in chat rooms, sending messages, among others (Passarelli & Junqueira, 2012). Considering this statement, if we consider videogames as a predominantly proactive

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Graphic9–From each pair of devices presented, which one do you like most (cell phone xvideogame)? (Teenagers)

Data gathering also revealed that 80% of teenagers affirmed had obtained their first cell phone before 13 years old – which bring us to the precocity of this public in accessing digital screens and technologies (Graphic 10).

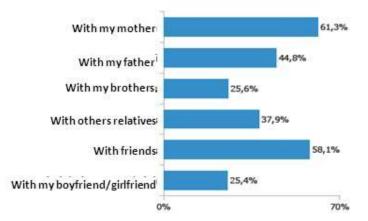


Graphic 10–With what age did you have yourfirst cell phone? (Teenagers)

This early contact with the screens puts the respondents as part of a generation of the late nineties - the stage in which the popularization of ICT in the country, if it was not in an advanced stage, was very present in the daily life of families and schools . This 16 Vol. 8 N° 1. Jan./Jun. 2014 – São Paulo – Brasil – B. Passarelli - A. H. Junqueira - A. C. B. Angeluci – p. 01-25

scenario served as facilitator for contemporary Young people in learning of digital literacies, since being "digital natives" (Prensky, 2006), hold advantages in domain of devices compared to previous generations - their parents, teachers and families.

The generational dialogue regarding technologies reveals, therefore, as an important challenge, especially in interactivity and transmission dynamic of digital knowledge between parents and children. In general, parents tend to have more skills and knowledge of digital technologies than mothers. However, the participation of mothers occurs in another sphere - in the treatment of relationships and everyday sharing mediated by technology. This becomes clear when it is observed in Figure 11 and can be seem that young people of both genders speak more with their mothers by phone - which also occurs in children from 6-9 years (59.5%).

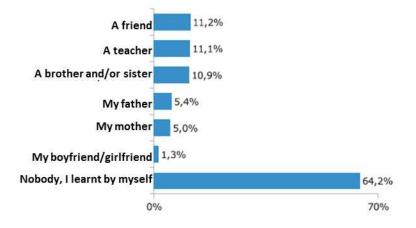


Graphic 11 – With whom you talk more on cell phone? (Teenagers)

In other socialization environments of children and adolescents, such as the school, it is possible to identify different dynamic interaction between the screens, the audience researched and teachers.

In this context, the socio-economic and infrastructure deficiencies, as well as the difficulties of teachers in dealing with digital platforms, proved to be limiting factors in the effective use of Information and Communication Technologies (ICT) in school practices (Passarelli & Junqueira, 2012). Other research supports this assertion when they point out that in the Northeast, 47% of teachers consider their Internet skills insufficient for professional use (Comitê Gestor, 2011). Even with these limitations, the research revealed the importance of teachers in the use of the internet in relation to the

family, as shown by Graphic 12, even if teenagers' internet self-learning prevails with large margin.



Graphic12–Who did teach you to use internet? (Teenagers)

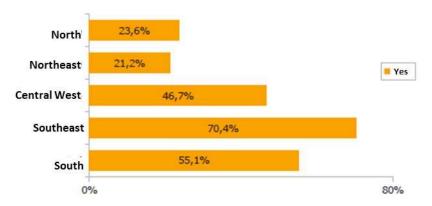
The scenario differs when regarding children, in which the teachers' role in guiding the use of computer and internet is the most prominent (37% of the children interviewed). The findings reinforce other similar research approach in Brazil, in which was found that in the case of children between 5 and 9 years old, the teacher is the main channel for learning using ICT (Comitê Gestor , 2012).

Geographical and regional's mediations (infrastructure, culture and socioeconomics conditions)

The macro-geographical regions conditions are also revealed as important factors for cultural, socioeconomic and infrastructure mediations, as they bring a decisive impact on the opportunities for possession and access, and consequently in the formation of habits and practices in relation to the screen.

There is an expected significant difference between the North and Northeast and Southeast and South in those terms that effectively is proved along the research. Although is important to highlight the distinctive profile of the Brazilian Central West. Over the past decades, the money injection and migration flows brought the agricultural sector development in this area and, consequently, a higher economic performance compared to the other regions of the country (Neto & Gomes, 1999). So, in this region, access to digital technologies and consumer goods, therefore, will show levels close to those observed for the Southeast and South, historically the most prosperous regions.

Indicators for North and Northeast revealed by the survey showed, in fact, the expected trend for these regions: 56% of northerners and 42% of northeastern teenagers claim that the money available for consumption is low to personal needs. All these data reinforce that socioeconomic factors are closely linked to differences in digital inclusion of young Brazilians. Graphic 13 illustrates this statement from the information on computer possession in homes.

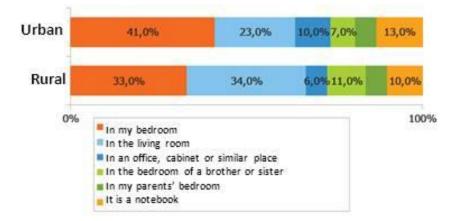


Graphic 13–Do you have a computer in your home? (Children)

This is also a trend for the use of cell phones: 53.6% of children in the North and 45.8% in Northeast claimed they did not have phones; in the Central West, the index was lower (36.9%), close to South (32.2%) and Southeast (31.8%).

Beyond the locations differences, there are also those related to the rural and urban areas and theirs dynamics and characteristics that influence the daily lives of inhabitants. Although in the contemporary is contacted successive approximations and dilutions of socioeconomic and cultural boundaries between these areas (Abramovay, 2003; Alentejano, 2003), the maintenance of restrictions on the supply of infrastructure for access to digital products and services at rural areas makes the young people from these areas hold considerably lower levels of possessions, access and appropriation of the analyzed screens in relation to the corresponding urban residents. Thus, the urban scene promotes accommodation and convergence of values and patterns of behavior and consumption that create distance in relation to important practices in the rural areas (Passarelli & Junqueira, 2012). The research revealed that, regarding children living in Brazilian rural, 82% declared having digital equipment in their homes, whereas for adolescents, this number was 60%.

With less availability of screens and, consequently, restricting their presence in various environments, rural households have lower dispersed equipment in house's rooms, which promotes more the use of shared screens between different family members resulting therefore in less solitary use, both in game and in the navigation of the internet and television enjoyment. It is worth noting in Graphic 14 the presence of the computer in the living room - a percentage higher than in the urban area, where the equipment is more present in the room.



Graphic 14–Where is the computer in your house that you most use? (Teenagers)

DIGITAL NATIVES, SOCIABILITIES AND MEDIATIONS: SOME SPECIFC ASPECTS ON BRAZILIAN CONDITIONS

The naturalization of the speech about the superior digital skills of young people in front of the generations that preceded them is undeniable and tempting, giving account to explain the relevance of daily situations experienced within the family, school and other environments of youth sociability. In fact, as amply demonstrate the characteristics identified in this research, for young contemporary online prevails blurring of boundaries between their activities for entertainment, communication, study, work and family and social relationships. And in all of them, when mediated by digital screens, the young browses, clicks, types, photographs, records, saves, sends content and performs an increasingly expanded set of actions, with incredible levels of skill and performance, which entails the widespread misconception that they dominate the total, natural and instinctively the digital universe.

However, it is necessary to establish some limits to this order of interpretation of contemporary digital phenomena, denouncing it in some measure its reducing character. First, highlighting the brazilian case, access to ICT is uneven both in terms of

socioeconomic class as the spatial distribution, given that it entails large disparities in the provision of infrastructure and services, consequently the prices charged for them, jettisoning consumption significant portion of potential users, especially in economically depressed areas. Thus, the condition of being young and simultaneously possess digital skills is not natural, universal or homogeneous. On the contrary, emerges strongly segmented the social point of view. Such situations are added to those already prevailing by socioeconomic exclusion – resulting in lower levels of education, health, and poorer housing conditions, food, transportation, and other dimensions – imply significant differences in individual abilities to understand, analyze, process, create, distribute and receive online content, among other important restrictions (Livingstone, 2011).

A second point to be mentioned concerns the conceptual dimension that applies the digital literacies adopted in this research. In this context, far beyond the simple skills of young people, it must be considered a greatly expanded set of skills and knowledge related to the ability of critical discernment face to sources and own information in the Internet, the construction of dense and reflective thought, understanding of ethical values and citizens in social networking and the security and protection of individuality and privacy in social networks, just to name a few of the most relevant dimensions.

For the actual construction of youth as a new citizen, family and school's mediations and socialization groups - composed of parents, teachers, tutors, counselors and other staff of more experience, age and experience - are the key aspects.

It is therefore clear that the concept of the *digital native* as opposed to the *digital immigrant*, though attractive at first sign, is limited in understanding the real meaning of the learning dimension of the digital culture. The conditions prevailing in Brazilian society, both in educational terms, the cultural and economic development and youth education for the digital world cannot do without the intermediary of the traditional institutions of sociability and support formal and informal education. It is needed to have clear in mind that fitness for immersion in virtuality of the digital world, thereby extracting the permanent construction and reconstruction of self and society can only be achieved by continuous and unending process improvement and personal education, which in far surpass the facilities of " mere instrumental, thoughtless and trivial

handling of complex communicative possibilities of digital networks" (Castro, 2012: 76).

FINAL REMARKS

This paper is not dedicated to bringing absolute or conclusive data on the reality of the use and possession of contemporary digital screens in relation to the public studied. It should be noted, too, that collection contexts are profoundly altered in the sense that new digital tools and habits start to become more remarkable than others as time goes by. An example is the sudden emergence of the social network Facebook, which during the period of fieldwork was still an essentially North-American phenomenon and not with world amplitude, having its importance growth in the daily lives of young Brazilians today.

That said, we must focus on the fact that the data collected and analyzed collaborate greatly in understanding scenarios still poorly known about the actorsnetworks emerging literacies. From the four axes point of view, it was possible to organize the perspectives of analysis based on the approach of the mediations that govern human life and are closely related to the bonds that individuals establish between themselves and their environment. These data allow us to learn the nuances of connected Brazilian children and teenagers, contributing to better planning of future actions, for and with the screens, as well as the definition of public policies more suited to this generation. A connected, multitasking generation, ready to deal with the agility and overcome boundaries between the playful and knowledge.

REFERENCES

- ANGELUCI, A. C. B.; GALPERIN, H. O consumo de conteúdo digital em lan houses por adolescentes de classes emergentes no Brasil. *Revista Latinoamericana de Ciencias de la Comunicación*, v. 17, p. 246-257, 2012.
- ABRAMOVAY, R. O capital social dos territórios Repensando o desenvolvimento rural. In: ABRAMOVAY, R. *O futuro das regiões rurais*. Porto Alegre: Editora da UFRGS, p. 83-100, 2003.
- ALENTEJANO, P. R. As relações campo-cidade no Brasil do século XXI. Movimentos sociais: multiplicidade teórica e metodológica. Terra Livre, São Paulo, ano 19, v.2, n.21, p.25-39, jul./dez. 2003.

MATRIZes

- BAILEY, A. Issues Affecting the Social Sustainability of Telecentres in Developing Contexts: A Field Study of Sixteen Telecentres in Jamaica. *The Electronic Journal on Information Systems in Developing Countries*. v. 36, n. 4, p. 1-18, 2009..
- BARROS, L. M. O campo da comunicação e os estudos de recepção. *Revista Comunicação Midiática*. v. 6, n. 1, jan./abr. 2011. p. 19.
- BRINGUÉ, X.; SÁBADA, C.; TOLSÁ, J. La Generatión Interactiva en Iberoamérica 2010: Niños y adolescentes ante las pantallas. Madrid: Fundación Telefónica, 2011. Colección Geraciones Interactivas - Fundación Telefónica.
- CANCLINI, N. G. Consumidores e Cidadãos. 6. Ed. Rio de Janeiro: Ed. UFRJ, 2006.
- CASTELLS, M. A sociedade em rede. A era da informação: economía, sociedade e cultura. v. 1. São Paulo: Paz e Terra, 1999.

. *The Internet Galaxy*: reflections of the Internet Business and Society. Oxford: Oxford University Press, 2002.

- CASTRO, Gisela G. S. Screenagers: entretenimento, comunicação e consumo. In: BARBOSA, Lívia. *Juventudes e gerações no Brasil contemporâneo*, p. 61-77. Porto Alegre: Sulina, 2012.
- COMITÊ GESTOR DA INTERNET NO BRASIL. TIC Crianças 2010: Pesquisa sobre o uso das tecnologias de informação e comunicação no Brasil/ ICT Kids 2010: Survey on the use of information and communication technologies in Brazil. São Paulo: Comitê Gestor da Internet no Brasil – CGI.br, 2012 (edição bilíngüe).

_____. TIC Educação 2010. Pesquisa sobre o uso de tecnologias de informação e comunicação nas escolas brasileiras. São Paulo; CGI.br, 2011.

- GAMAGE, P.; HALPIN, E. E-Sri Lanka: Bridging the Digital Divide. *The Electronic Library*, v. 25, n. 6, 2007.
- HASELOFF, An. M. Cybercafés and Their Potential as Community Development Tools in India. *Journal of Community InformaTIC*, v. 1, n. 3, p. 53-65, 2005.
- JENKINS, H. *Confronting the Challenges of Participatory Culture*: media education for 21st century. MacArthur Foundation, 2006.
- JUNQUEIRA, A. H.; PASSARELLI, B. A Escola do Futuro (USP) na construção da cibercultura no Brasil: interfaces, impactos, reflexões. *Logos 34*: o Estatuto da Cibercultura no Brasil, vol. 34, n.1, p.62-75, 1º semestre de 2011.
- LATOUR, B. *Reassembling the social*: an introduction to actor-network theory. New York, Oxford University Press, 2005.

MATRIZes

- LENGYEL, G.; ERANUSZ, E.; FÜLEKI, D.; LŐRINCZ, L.; SIKLÓS, V. The Cserénfa Experiment: On the Attempt to Deploy Computers and Internet in a Small Hungarian Village. *Journal of Community InformaTIC*, v. 2, n. 3, 2006.
- LEVY, P. *Collective Intelligence*: man's emerging world in cyberspace. New York: Perseus, 2006.
- LIVINGSTONE, Sonia. Internet literacy: a negociação dos jovens com as novas oportunidades on-line. *MATRIzes*, São Paulo: ECA-USP, Ano 4, n.2, p.11-42, 2011. DOI: http://dx.doi.org/10.11606/issn.1982-8160.v4i2p11-42
- MATTOS, S. *História da Televisão Brasileira*: uma visão econômica, social e política. Rio de Janeiro: Editora Vozes, 2002.
- MARTIN-BARBERO, J. *Dos Meios às Mediações*: comunicação, cultura e hegemonia. Rio: Editora UFRJ, 1997.
- MERCER, C. *Telecentres and Transformations*: Modernizing Tanzania Through the Internet. African Affairs, v. 105, n. 419, p. 243-264, 2006.
- NETO, A. M.; GOMES, G. M. Quatro Décadas de Crescimento Econômico no Centro-Oeste Brasileiro: recursos públicos em ação. *Revista Econômica do Nordeste*, Fortaleza, v. 30, n. Especial 856-875, dezembro 1999. Disponível em: http://www.bnb.gov.br/content/aplicacao/ETENE/Anais/docs/ren1999_v30_ne _a28.pdf>. Acesso em: 19 jun. 2012.
- PASSARELLI, B.; AZEVEDO, J. (Orgs.). *Atores em rede*: olhares lusos-brasileiros. São Paulo: Editora Senac, 2010.
- _____; JUNQUEIRA, A. H. *Gerações Interativas Brasil* Crianças e Adolescentes diante das telas. São Paulo: Escola do Futuro/USP, 2012. 352 p.
- PRENSKY, M. Digital Natives, Digital Immigrants Part 1. *On the Horizon*. Vol 9, n° 5. Setembro/Outubro, 2001.
 - _____. *Don't bother me, Mom, I'm learning!* How computer and videogames are preparing your kids for 21 st century success and how you can help!. Saint Paul, Minnesota: Paragon House, 2006.
- TAPSCOTT, D. *Growing Up Digital. The Rise of the Net Generation.* New York: McGraw Hill, 1998.
- TOFFLER, A. The Third Wave. New York: Bantam Books, 1980.
- TURKLE, S. *Alone Together*: why we expect more from technology and less from each other. New York: Basic Books, 2011.

MATRIZes

UNCTAD. Measuring the impacts of information and communication technology for development. UNCTAD Current Studies on Science, Technology and Innovation, 3. United Nations, 2011.

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