Television and Digital Media in Latin America: a scenario under construction

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Abstract

The text is the initial result of a project called *Global iTV, Interactive and systems Hybrid TV: a new advanced scheme for future services and applications in a global environment*, contemplated by Call MCTI / CNPq 13/2012 – EU-Brazil Cooperation Program in the field of Information and Communication Technologies (ICT) which has as its central theme the development of a standard that enables interoperability between the various digital TV systems operating jointly, exchanging and using information. Thus, using bibliographical and documentary research, the article goes on to demonstrate how this perspective panorama is drawing from the advent of digital television and the use of technology in Latin America, seeking to identify similarities, differences, problems and solutions arising from the use and consumption of digitizing television signal in the region. The results demonstrate the importance of media convergence, but point out that there are still large sections of the population on the margin of the Digital Society and the benefits provided by digital networks and that poverty and poor education are important contributions to this scenario.
Keywords: Latin America. *iDTV*. Digital Inclusion. Social Inclusion. Digital Media.

Digital Television and interactivity

The Global iTV project comes to supply the current demand on technological development. The possibility of several equipments to share information and to operate jointly will open, in short and long term, new possibilities in the production of communication content and in the perspective of social and digital inclusion. By the use of the review of literature and documentary research the paper reflects about the interaction, interactivity and systems interoperability possibilities, in order to demonstrate some social challenges that still need to be faced in Latin America.

The interaction, as a process, is an option which is present practically since the beginning of television media, either by letters, by phone or even in viewer's choice of a program or a channel assuring the audience. Nowadays, the internet composes, in the majority of communication companies, the technological alternatives, which goal is the loyalty of audience, and many times to ensure the same, on television. "It is increasingly common the directing to the programs websites, where chats, groups, discussion lists, blogs, twitter and all the social media offer to the viewer the chance to participate and interact with the broadcast TV programming" (SANTOS, 2013, p.4).

On the other hand, according to Becker and Zuffo (2009), there are several definitions for the concept of interactivity. Normally associated to Internet, the interactivity is also linked with computing, arts, cinema and communication. "In spite of the lack of consensus, most definitions point to the software transmission along the audiovisual programming in order to improve the communication between sender and receiver of the message" (BECKER; ZUFFO, 2009, p.47). Whichever the assumed definition is, either the software or the equipments (hardware) used to allow the interactivity, the fundamental is to attract and maintain the viewer's interest over what is being showed on the first screen (television), whether it is entertainment, education or information content.

In Brazil, with the advent of the World Cup (2014) and the previous Cup (in South Africa) some communication companies, such as Rede Globo de Televisão and Grupo Bandeirantes de Televisão held some interactivity application "tests". However we still face some difficulties. Although many viewers receive the digital signal, the TV devices with built-in converters do not have Ginga. The same happens in many external converters. To sum up, despite the fact that they receive the signal with high definition images, the application still do not "run" in these apparatus, because there is no Middleware[1].

According to Santos (2013, p.8), in the current moment of the development of the SBTVD (Sistema Brasileiro de Televisão Digital) there are three parts, equally important, to be faced:

a) While potentially having a chance to revolutionize the scenario of communication technologies by adding to the one-way model of open TV in Brazil the possibility of effective and bi-directional interaction with the viewer, the iDTV[2] depends on pragmatic assessment in terms of market, viewers and broadcasters, the latter still partly working with the uncertainty about the commercial viability of interactive applications. b) Most applications currently developed, because they were made with the aim of testing the Ginga and programming languages used, have little interest, little appeal to the viewer, precisely because they are designed by programmers and not by producers of audiovisual content. c) The IDTV seems to position itself between the experience of traditional broadcast TV and the customized experience of the Internet. The richest applications presuppose the interactive channel to work and rightfully so we might ask why someone who could access the Internet through common mode would do it by TV with the display difficulties and without the more efficient computer input devices like keyboard and mouse.

Thus, there is no large scale offer of interactivity by the TV stations but the investment in interactivity is justified when they aim the digital inclusion in regions where the cable TV stations and telecommunication companies have no commercial interests.

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[1] Authors note: Middleware is a program that makes the mediation between the software and other applications. Used to carry information, it creates a kind of communication protocol.

[2] Interactive Digital Television.

In this case, it is more appropriate that the countries' government invest in *iDTV* than private TV stations. This is because there are no clear policies for all the changes brought together with digital signal, whether in the business models definitions, understanding or collaboration among producers, broadcasters, programmers, deciding what is our real vocation for interactivity in terms of broadcast TV, among others. These themes are fundamental for the enlargement of the interactive productions options in a scale which is compatible with the market demands.

Expanding the analysis to Latin American countries, for a better comprehension of this scenario, it is fundamental to remember the previous discussion which happened before the World Summit on Information Society (WSIS), when Kofi Annan[3] proposes to the Silicon Valley the challenge of creating communication and information systems to communities without access. The results brought the perspective that the digital inclusion was possible in worldwide terms. Among the results presented, can be quoted: Simputer movement[4] (the name comes from the merger of the words simple and computer) in India; Microsoft Pocket PC; free wireless metropolitan system; the 100 dollars laptop created by the Media Lab of the MIT[5], and Linux location in languages non provided by the commercial suppliers, among others (ITU, 2014).

After that, the meetings in 2003 in Geneva (Switzerland) and in 2005 in Tunis (Tunisia) defined and reinforced the WSIS goal of creating a society that has free access to tools and technologies that allow the extension of education and the possibility of knowledge diffusion. According to Kofi Annan information society should be understood as a phase in which "[...] Human capacities are expanded and recognized, given to people access to tools and technologies that they need, with the teaching and training for the efficient use of this new knowledge[6]" (ITU, 2014).

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[3] General Secretary of UN (United Nations).

[4] The Simputer, a device slightly larger than the existing handhelds on the market today and equipped with Linux-based operating system, was originally designed by the Indian Institute of Science to bring the Internet to rural areas in India.

[5] Massachusetts Institute of Technology.

[6] Available also on the UNESCO and UN websites and other several web spaces.

Although often criticized because of the lack of effective participation of the organized civil society, the group, that put together mainly governments and private sectors in the meeting held in Geneva established, in accordance with the Millennium Development Goals (MDG), a Principle Statement and an Action Plan to be reached until 2015. Among the key highlights of the Plan are: encouraging connectivity – in villages, educational institutions, scientific and research centers, public libraries, cultural centers, museums, post offices, archives, health centers, hospitals and government departments; adjustment of the curricula of primary and secondary schools to face the challenges of the information society; global access guarantees to the ICTs, including television and radio; support to the content development, and facilitate the presence and use of the internet. In Tunis it was approved the "Tunis Commitment" and a common agenda, and also the proposal of some modifications to the original text as the connection of companies by the ICTs, the definition of measurement forms and the creation of the Internet Governance Forum (IGF) (ITU, 2014).

Equally, among the goals of the WSIS are the development of benchmarks for assessing the global goals of the information society and also the data have been used as a worldwide reference for the global access and use of ICTs. "In addition, the goals of WSIS intended to achieve specific targets at national level based on both local and strategic characteristics, and development policies". The guidance also pointed that the ICTs represent economic growth for the nations and directly influence other important areas, such as development and access to health, education and public services, with more speed and agility. With the introduction of the Internet Protocol (IP), of the broadband[7] and the increased

[7] Governments in the region are quickly recognizing the importance of broadband for economic and social development. Therefore, currently almost 20 countries in the America have adopted broadband plans that set specific goals and objectives. Although some plans are more specific than others, they all recognize the need for interdependence to expand the provision of broadband infrastructure and to facilitate the search for all citizens (including those in rural areas and lower income) to allow for them the several social, cultural and economic benefits of being "online" (ITU, 2014).

use of the Internet, the impacts of convergence point positively to the growth of the global access to ICTs, although combined with large economic, social and cultural differences and also in different development stage in the countries, the results still draw a digital gap (ITU, 2014).

There are disparities among countries with respect to the access, connectivity, cost, appeal etc. Some countries look for resources in the private sector and partnerships with governments. For others, there is a greater reliance on public sector for the infrastructure expansion of the broadband access, implementation and expansion of network and mobile services. This way and in a wide range there is an effort for the definition of public policies which can assist the demands in telecommunication and broadcast, ensure network neutrality, spectrum management policies (especially auction, as in the case of Brazil) and normative for convergence between telecommunication and broadcast, creating regulations for effective competition in order to allow the entrance of small groups, to ensure and to protect the citizens interests.

Nevertheless, in spite of the significant presence of the ICTs, their benefits are not experienced for at least 7.1 billion of people around the world. According to the latest estimates, more than 4 billion of people are not online yet (ITU, 2014). Because of this, the biggest challenge for the governments, especially in Latin America, is to direct actions to assist the demands. The use of digital technologies, connectivity and broadband access provide a wide range of services in the area of education, health, sustainable social development and improvements in quality of life for everyone.

Actions like the one held in Argentina, with free distribution to part of the low income population of the set-top Box (about 1 million were distributed), benefit everyone since they accelerate the national industry production, at the same time these actions make a positive pressure on the broadcasters for their insertion in this market and expand the access of the population to the benefits of the digitization system.

In Brazil, the National Broadband Plan is a public policy which has a fundamental importance for the digital inclusion movement, it is necessary to make available equal access to both the signal, Internet and broadband, though, in areas where before there was only the possibility of analog TV. The vastness of Brazil shows the size of the challenge that will be faced in the next years. "In the current technological scenario, with rapid changes and product lifecycles increasingly smaller, to rule means no more 'open road' but decide the right time to do it in time windows that the more rigid structure of government sometimes cannot see" (SANTOS, 2013, p.8).

At the level of economic development and social, supported by the globalization process and combined with increased access to ICTs a significant movement around extensive restructuring and reorganization of the economy and global political relations have been presented in the agendas of many countries. Whether, on one side, these changes "[...] cause important cyclical conflicts and tensions", on the other side they coexist in these spaces, creating other possibilities. According to Porto and Régnier, "[...] in this process, the social and political contradictions increase, creating new points of conflict and tensions, including the persistence of large economic, social and military inequalities between nations and within the different countries" (2003, p.11).

However if the result of globalization enables the joining of forces, the contradictory side is the unipolar hegemony of some countries, such as the United States of America (USA), that strengthened by "[...] the loss of action capacity of the nation-states in national territories" motivated by the disorganization of political, economic and social regulation systems, signals a clear mismatch between the "[...] economic integration and political fragmentation (which has been intensified with the USA unilateral decision - with Britain and Spain support - of invading Iraq)". The result is an excessive strengthening of the USA, although at the same time "[...] there are new and growing signs of a reorganization of the economy and international policy with the emergence of China assuming leadership and seeking its insertion

in international institutions" (PORTO; RÉGNIER, 2003, p.11) such as the WTO (World Trade Organization), the very formation of Mercosur (South Common Market) and more recently BRICS[8] that belong to a number of developing countries.

Once this first wide scenario is drawn, by tracing a more general vision of the television market and the ICTs in the world and by allowing a broader view of the television market, this work now focus on demonstrating how this panorama is drawing from the advent of digital television and the use of technology in Latin America, aiming the identification of similarities, differences, problems and solutions which arise from the use and consumption of TV signal digitalization in the region.

Latin America and the permanent inclusion challenges

It is possible to ensure that the concern with the integration beyond the economic factor of the Mercosur[9], which is, partially, a result of the Treaty of Asunción, constitutes challenges for the researchers in Communication at the region. More than a trade agreement, the integration of the Cone Sul countries has caused a change in theirs member postures in order to define joint actions

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[8] According to the Foreign Ministry data "The idea of the BRICS was made by chief economist at Goldman Sachs, Jim O'Neil, in a 2001 study entitled" Building Better Global Economic BRICs. "Has set itself the analysis category in the economic, financial, business, academic and communication. In 2006, the concept has given rise to a group, itself, incorporated into the foreign policy of Brazil, Russia, India and China. In 2011, at the Third Summit, South Africa became part of the group, which has adopted the acronym BRICS" (ITAMARATY, 2014).

[9] Accounting for crises and successes the Mercosur completed 22 years in 2012, with almost effective cooperation. It was precisely in 1990 that Brazil and Argentina established an economic integration agreement and as a result signed the Treaty of Buenos Aires. With the entry of Uruguay and Paraguay, on March 23, 1991 it was signed the Treaty of Asuncion, becoming this way the Mercosur. Currently Mercosur is made up of Argentina, Brazil, Uruguay and Paraguay, although the later was suspended from the block due to the deposition of (former) President Fernando Lugo, held in June 2012. This suspension was extended until April 2013. From July 2012 Venezuela joined the block. The composition also has the associated countries: Chile, Ecuador, Colombia, Peru and Bolivia (GOBBI, 2013 apud SARTI, 2013, p.727).

to promote cultural nexus, also in the educational, cultural and reducing social inequalities actions.

Briefly looking back we can say that the Treaty of Asunción was made up of several stages. The initial one was implemented in January 1995[10] as the first protocol of a customs Union in which the parts involved established balanced trade conditions, combined with a common external tariff policy. There were several conflicts of interest, but there were several attempts to overcome it, looking for a common welfare, properly monitored by the media.

For the consolidation of a common market, bold initiatives were carried out. For example, social and cultural integration, feasibility of a communication structure, integrated media coverage stations and public agencies of countries and the very concept of Mercosur Specialized Meeting (RECS) created by Resolution GMC n°155/96, that aimed to "[...] Promote joint activities aimed at greater coordination and cooperation in the information sphere, the press and the dissemination of the integration process (SECOM, 2013)" In this sense, more than 300 different channels of discussion, involving government bodies and civil society interests were formed to enable the consolidation of Mercosur.

In spite of the fact that these actions can be representative, one should not forget to mention that this is a common agreement, involving several countries which are still young on their political-economic formation, with different cultures and global interests. But it is possible to assert that a new social, political and economic framework effectively irreversible was established.

If there is, on one hand, an apparent inconsistency in the definition of an economic, political and social model, on the other hand, the negotiations proceed "[...] to the construction of a new regulatory system to organize economic and trade relations in the new historical conditions; that probably will have to answer

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[10] It is worth mentioning, that a little earlier, more precisely on December 17, 1994 Brazil, Argentina, Paraguay and Uruguay signed the Ouro Preto Protocol, which provided to MERCOSUR an institutional framework giving legal personality to the Block. It was also defined the basis of the Customs Union. On January 1, 1995 came into force on Customs Union with the adoption of the Common External Tariff.

also the political challenges and conflicts generated by unequal globalization" (PORTO; RÉGNIER, 2003, p.11).

All this context determines a set of trends and cyclical events that can set other development prospects and although it seems disconnected from the performance of educational institutions "[...] its consequences in the medium and long term will be felt in this field, particularly in the greater or lesser opening to free flow of knowledge and information and the internationalization of institutions" (PORTO; RÉGNIER, 2003, p.13), consolidated or not, but supported by information and communication technologies. If the processes resulting from globalization offer transformation opportunities and adaptations in the social scenario of nations, the results bring other challenges, like the expansion of access, the internationalization, mobility, quality and others.

It is clear that the analog television is still the device which best represents the access to communication in the region, occupying the center of the living-room of many Latin Americans. It works as a source of information and entertainment, even though social inclusion is not contemplated by this statement. However, the interactive digital television can be consolidated as a new vector of integration, expansion of educational levels, economic and social development and on generation of sustainable economy for many countries under development. Nevertheless, to consider a single plan or a set of similar ones to assist the demands of digital and social inclusion in the region is, at least, an understatement of difference in social and cultural scenarios.

The television scenario in Latin America has always been some kind of development flag. The data provided by Media Book (IBOPE, 2013) demonstrate the penetration of this mean of communication in the region.

Figure 1 – Penetration of broadcast TV in Latin America, 2012-2013
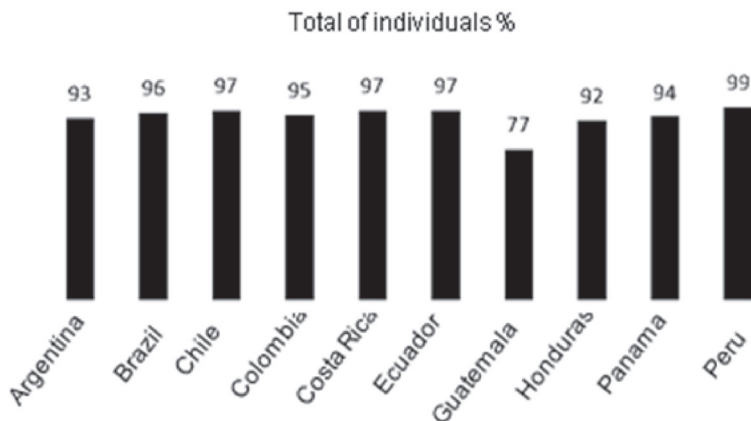
Total of individuals %

Source: Target Group Index (Argentina, Brazil, Chile, Colombia, Ecuador and Peru).

Multimedia (Costa Rica, Guatemala, Honduras and Panama). Note: Last 7 days[11].

According to the data, the broadcast TV penetration reaches the amount of 99% in Peru. In other countries like Chile, Costa Rica and Ecuador the index is equally representative (97%). Only in Guatemala[12] (the most populous country in Central America, third in area), among the ten countries figuring in the research, the amount of penetration is less than 90%, reaching 77% (MRE,

[11] Authors note. The Media Book, published by IBOPE, includes data on consumption and investment in media in 13 countries in Latin America (Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Honduras, Nicaragua, Panama, Paraguay, Peru and Uruguay). The information presented has as source the regular studies of IBOPE Media and are generated from the collection of data on 10,455 households in the Television Audience Panel (with peoplemeter), 538,160 interviews on the radio consumption, 69,395 interviews about consumer habits, and the monitoring of nine means for advertising spend, being surveyed 229 free TV channels, 162 pay TV channels, 455 radio channels, 703 magazines and 244 newspaper titles (IBOPE, 2013).

[12] Authors note. With Nominal GDP of approximately US$ 50 billion and growth of 3% in 2012, according to IMF estimates, Guatemala ranked as the 77th world economy. The service sector accounted for 63% of GDP in 2012, followed by the industrial sector with 24% and the agricultural sector with 13%. It should be noted that agriculture absorbs 38% of the local workforce (MRE, 2013).

2013). This can be perhaps explained by that fact that Guatemala is the poorest country in the region, with almost 50% of the population living below the poverty line.

Equally representative, according to Media Book (IBOPE, 2013), is the penetration of the cable TV in Latin American countries. In Colombia, this media is watched by 86% of the population and, in Honduras, by 84%. In Brazil, this percentage is 40%. Among the countries analyzed the smallest penetration of the media occurs in Ecuador: 27%. The figure 2 shows these statements.

Figure 2 – Cable TV penetration in Latin America 2012-2013
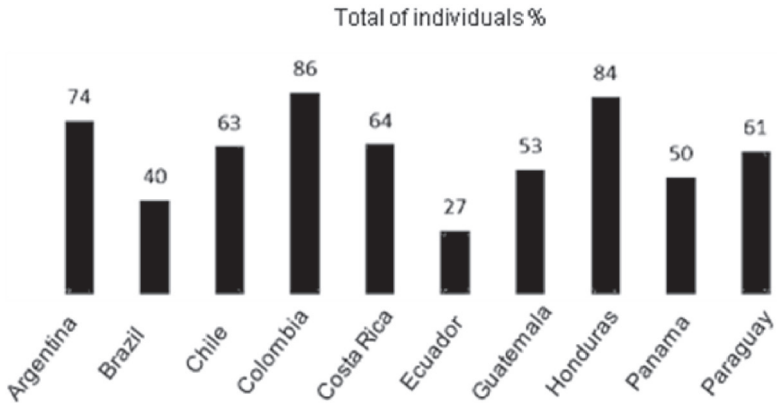
Source: Target Group Index (Argentina, Brazil, Chile, Colombia, Ecuador and Peru). Multimedia (Costa Rica, Guatemala, Honduras and Panama). Note: Last 7 days.

In terms of investment, in 2012, the broadcast TV reached a total of almost U$$ 45.7 billion in the 13 countries analysed (IBOPE, 2013). Among then we highlight Ecuador and Nicaragua which of the total invested in each country, 82% were to the broadcast TV. For the cable TV, the investments were around US$7.6 billions. It is in Colombia that the media has the highest participation in publicity investment (around 22%) when compared to the other countries of the region.

In spite of the data about broadcast TV being interesting

and demonstrating an improvement on the economic aspect of the television consumer, the Brazilian legislation, for example, guarantees free signal and benefits arising from the system digitization. This way it is fundamental the development of an interactive app which could enrich the image and sound, specially incorporating the regional demands of the television. About the interactive content production, as said by Waisman (2006, p.18) "[...] for that to be made efficiently, firstly, we should consider that the consumer of television media waits a high level of audiovisual production, capable of provide entertainment in a funny and captivating way".
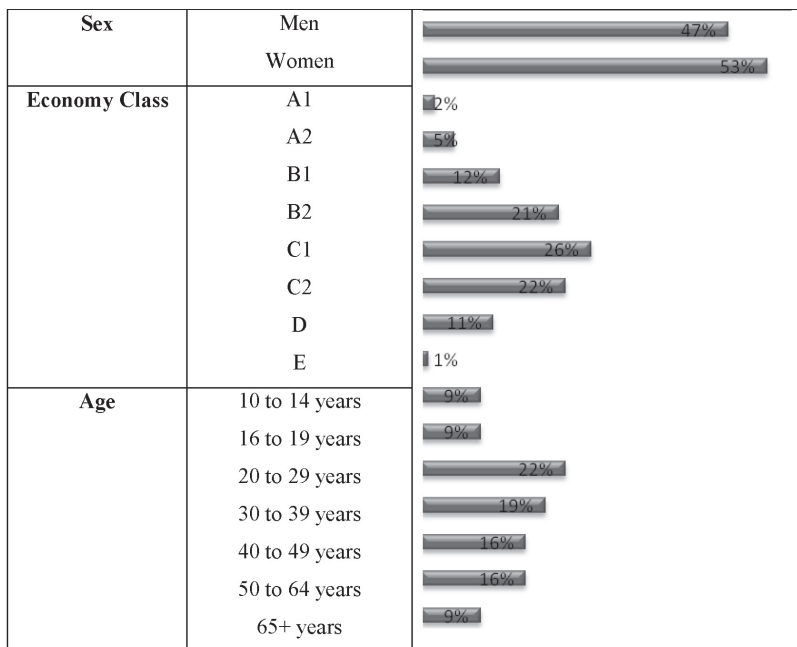
The notes reported here indicate that homes and therefore the way of life is increasingly digital. If this access is a prerequisite for using the interactive potential of the hybrid TV system, it is also necessary to understand in which ways and by whom these devices have been used.

In Brazil, the viewers have a very diverse profile, that reflects a television model with open and free sign and cultural characteristics of the population, which has allowed high penetration rates in different genres, age groups, socioeconomic classes etc. In general, the composition of the audience shares this range, however, a few highlights are needed, for example, the concentration of 41% of the audience with ages ranging between 20 and 39 years and 48% of the C class (see Figure 3)[13].

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[13] The data on the profile of the television audience correspond to Marplan / EGM studies applied on the main Brazilian markets. (MÍDIA DADOS, 2014).

Figure 3 – 2013 - TV Viewer profile

Sex	Men	47%
	Women	53%
Economy Class	A1	2%
	A2	5%
	B1	12%
	B2	21%
	C1	26%
	C2	22%
	D	11%
	E	1%
Age	10 to 14 years	9%
	16 to 19 years	9%
	20 to 29 years	22%
	30 to 39 years	19%
	40 to 49 years	16%
	50 to 64 years	16%
	65+ years	9%

Source: Mídia Dados, 2014. Adapted by the authors

The aging rate of the age pyramid, still a few years behind the European indices, demonstrates the need for a productive ecosystem that considers the generational situation in a context in which young people are already involved in a converged environment and the elderly go through a technological literacy[14] and digital process.

Considering the different nuances we can say that the integration of elderly people to the digital universe is a challenge even in the most developed countries. In the USA, for example, for young people between 13 and 34 years old the penetration rates, the possession of connected devices and the digital habits are two times higher, specially with respect to activities

[14] Authors note. We understand literacy as "[...] the ability to interact, communicate and produce knowledge using ICTs". (PASSARELLI, B.; JUNQUEIRA, 2012, p.5).

as the consumption of OTT[15] video and VoIP[16] services via Smartphones.

However, it is interesting to note that there is a will from the elderly people to connect and use products and services that can facilitate their daily lives, indicating a potential and growing market, such as the example[17],

> Online and mobile shopping lists are also used by almost a quarter (23%) of global respondents, with significantly higher percentages open to the idea. Three out of four respondents in Latin America are willing to use online shopping lists if they become available, along with six in 10 Middle East / Africa (63%), Asia Pacific (62%), North America (62%) and Europe (61%) (UN, 2014, our translation).

Another public range that needs special attention is the child and teenager. It is not new that television acts as a kind of electronic babysitter. Different studies indicate a Brazilian average consumption of more than two hours a day at this age, characterized by the high rate of children and young people who watch television alone. Among the preferred formats are the programs with the greatest restrictions from parents: movies and realities shows. The access of children and young to Internet in the country follows very approximate proportions, with the aggravating factor of causing a digital learning also lonely[18].

The European young remains approximately three hours connected daily, and one of every six states to be online at the

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[15] Authors note. Over-the-top content (OTT) refers to Internet via video delivery directly on the devices of connected users, allows access anywhere, at any time your favorite show, or news that you are looking for.
[16] The IConsumers research indicates that only 4% of Americans over 45 years watched OTT videos (Internet-based video on TV via connected devices), rate that falls to 2% over 55 years (ICONSUMERS, 2013).
[17] According to UN figures, published in the report 'World Population Prospects: the 2012 revision', overall, the number of people older than 60 years could more than double, from 841 million in 2013 to 2 billion by 2050 (UN, 2014).
[18] Data from the study conducted by the Escola do Futuro in partnership with Telefonica Foundation with children and young people in rural and urban areas of the five Brazilian regions.

same time that watches television[19]. In the European countries 12% of children already access the Internet through personal hand devices (like mobile phones and tablets), with higher percentages in Norway (31%) and the United Kingdom (25%) (GSMA, 2013).

Thus, it is generally accepted that children are turning increasingly to the early use of mobile devices (especially mobile phones) and the Internet connection (for social networks and games) creating a new space of opportunity but also vulnerability. In this sense, it is important that the hybrid television system enables, in a short-term scenario, the implementation of automated security and safety locks as well as parental control, to help safeguarding minors exposed to inappropriate content, interpersonal contacts of risk and cybercrime, while still respecting the specificities of the applicable laws of each country[20].

Given the generational specificities it is also a priority that, in short-term, to meet the requirements for common usability for managing and access to services and content, in view of the different literacy levels arising not only from diverse age groups, but also from multiple political, economical and sociocultural scenarios between regions (in Brazil) and among other countries (in Latin America, for example). In this perspective, interactive TV must have a user-friendly interface, intuitive and adaptable to user needs, including accessibility criteria that consider disabilities.

Digital Systems and social scenarios

The transition of the analog system to the digital has brought different experiences to the region. One of the defended flags is the offer, to the population, of interactivity options beyond the basic local levels and the mere participation via remote control. Although this (interactivity) has not yet reached large coefficients either in the access or even in the supply of programming and applications. Communication companies show little interest in

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[19] Mediascope Europe - IAB.
[20] Concern that meets the guidelines set by the European Union for the establishment of a common digital agenda between its countries.

interactive services. Perhaps because they do not set a profitable business model and the publicity remains the same, besides the necessary changes in the traditional advertising forms.

On the other hand, these praxes show that cooperation between national states is needed, through several forms of change. One of the most important is the definition of communication public policies that put together social, cultural and economic aspects, in areas of international, national and regional cooperation, enabling advances in DTV, and the expansion of services supply, especially in interactive processes.

There are no doubts, according to the Relatório Brasil 4D (ABDALLA; CHIANCA; CASTRO, 2013, p.187), that the implementation process of *iDTV* has been going through several stages. But the adoption of the system started at some basic assumptions, such as:

> [...] opportunity to ensure universal access to a multi-channel supply, which traditionally was only found in payment services, and thus democratize its access; the opportunity to revitalize and adapt the missions of the television public service; the opportunity to allow the entry of new writers in television system, which automatically would become a greater media pluralism; the possibility of diversifying the business model and to consolidate the industry's economy; and the opportunity to generate a powerful independent audiovisual production industry.

More than rising consumption, ensuring a broadcast television, democratic, with low investment and broad access it is fundamental to develop infrastructure to accommodate the different stages of development. This requires appropriate public policy, creating a supply chain with the participation of broadcasters, public and private initiative; expansion of interactive information supply, providing to the diverse audiences a range of options in services and programs, able to give familiarity with the use of technology. One of these possibilities requires access the computer network and the interoperability of systems, with delivery by broadband network of Internet connection "hybrid" terminals, where broadcasters have independence

in the production, packaging and distribution of programs, offering solutions in large scale. It is therefore necessary that communications policies are alert to these demands, aiming at the public-private balance.

Unequal access to technologies and the slow implementation of broadband have shown for the different countries of the Latin American space, the digital divide is a reality for a significant portion of its population, especially in the lower classes. There is an effort of governments in the region to meet this demand, but this has not been enough, although this development is essential to minimize the digital gap (UIT, 2014).

Despite these efforts are important, and even considering the increase in the penetration rate of broadband (fixed and mobile) in the last five years, there are important gaps that deserve a joint action in the region to guarantee that the ICTs are an enabling factor of the potential for an inclusive society in the age of information and knowledge. According the Relatório (UIT, 2014) several initiatives are being carried out, aiming the mobilization of human, technical and financial resources required for the implementation of the established connectivity goals by the World summit on Information Society. In Brazil, the National Broadband Plan (Plano Nacional de Banda Larga (PNBL)) comprises a series of measures to stimulate expansion in the quality and number of operators in providing mobile service in wide range using technology 3G and 4G, increasing competition and cheaper costs.

Final considerations

The technological gap between rich and poor points out the differences between those who have access to broadband services, convergence etc. and those who do not. This so-called "digital divide" looms large differences between the people of the country, showing that in some regions there is better infrastructure access. Moreover, and equally important is the difference in connectivity between segments of the population such as the elderly, low-

income or areas (urban versus rural) within a single country, leaving more evident technological gap.

Although with significant growth, as demonstrated below, if one looks at the specificities of each country it can be observed that within the demographic segments and in different geographical areas the digital divide remains wide, even in the countries with the highest penetration rates. In Brazil, for example, the majority of population of the Southeast region uses more the technologies than people who live in North or Northeast Regions.

Another form of exclusion is the digital gap between the young and the elderly, which evidenced by the fact that most Internet accesses are made young, especially before age 50. There is a relation between the number of years of education and the use of Internet: several national reports prepared by the Brazilian Institute of Geography and Statistics show that only 7.2% of adults with less than 4 years of formal education used the Internet last year. The growth registered, especially in the last two years, does not exempt governments and organized civil society to look for improvements for the reduction and extinction of all forms of exclusion.

No doubt the media convergence (TV, Internet and telecommunications) waves positively across the region, but there are large parts of the population on the margins of the information society and the benefits provided by digital networks. They are called "digital excluded", that make up the largest pool in Latin America, forming the known digital divide or digital gap, a term used by some authors, that extend the concept and refer to the difference between digitally excluded and included. Overall, the digital divide is directly related to poverty and poor education, which generates the difficulty of using technology. In this sense, it is essential to treat the education, culture and technology access as instruments of democracy, able to create spaces for discussion, planning and training beyond the arenas of the political system of nations, but allowing a common interest area, opened to the formation of public opinion on issues also related to everyday life.

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