

## Editorial

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Information and Communication Technologies (ICTs) are playing a key role in the fast growth of Latin America. In fact, many changes in society have been possible by the incorporation of Internet and mobile devices to everyday life and especially to all fields of the economy. Media is also been transformed, and migration of traditional newspapers, radio and TV stations into digital supports in all the countries of the region, show a clear idea of the importance of new technologies for our field of knowledge. This edition (volume 2, number 1) of the Journal of Latin American Communication Research (JLACR) brings to the arena the discussion of how we are facing the big challenges of new media, social networks, collaborative processes, cyber culture and new ways to do journalism.

Even when it could seem a fashion topic, the incredible amount of researchers interested in this field demonstrates not only its importance but the consolidation of a critical mass of thinkers, who are doing intensive reflections and research. For instance, in the last international meeting of ALAIC (Latin American Association of Researchers on Communication), in Montevideo (Uruguay) on May 2012, we received around 120 papers only for the Group of Digital Communications, Networks and Processes, which had been recently created. Most of these papers were results of projects supported by national and international institutions, and were presented in collaboration between two or more authors from different countries. So we can say that we're aware of the changes provoked by technologies and also of the capacity we have to shape them from a cultural perspective.

The incredible advantages of ICTs must also been considered in a context where the digital gap do not allow millions of citizens to access to basic services and contents. In the case of cellular phones, this gap has been passed, but popularization of Internet –and much more the high speed connections- is still a debt of Latin American Governments. This gap in the access is sometimes unfortunately accompanied by a cultural and information gap that may produce to individuals serious resistances to use digital media after they get them. Cultural and education

factors may also produce an underuse of valuable devices, so the dimensions of the analysis of ICTs must be wide, not only thinking in the technical infrastructure.

In this edition of the JLACR we have included 6 articles of authors from Latin America and Spain, who take a look of regional of local phenomena and introduce to the prolific scientific literature in the area. The first article, by Maria Angeles Cabrera and Ana Isabel Bernal Triviño (Spain), explores online media in Latin America, focusing on 4 specific cases in Chile, Argentina, Guatemala, and Mexico. Their findings recognize the progress, but insist on the differences in terms of development levels according to the economic situation of each country. Rubén Ramírez Sánchez (Puerto Rico), author of our second article, examines the role of different media technologies in the construction of a punk media infrastructure in Puerto Rico. According to Ramírez Sánchez, platforms like the network site Myspace have enabled the creation of meaningful networks of cultural production, seemingly resulting in media “counter-power.”

The third article, by Cicilia M. Krohling Peruzzo (Brazil), discusses the challenges of popular and community communication in the cyber culture, wondering if virtuality would help community movements in redefining communication practices. Krohling Peruzzo does a documentary research to identify the main theoretical assumptions of cyber culture in the mark of dynamic restructuring of communication in contemporary society. Also from Brazil, Carla Barros studies the representations concerning access by members of the lower classes to the technological world and the universe of the Internet. In this forth article, she states the logic of “each one in his place”, reminding the deep gaps and exclusion processes that are present in the region.

The next article, by Ramón Tirado, Ignacio Aguaded and Angel Hernando, Spanish academics, incorporates a significant issue to this dossier: the e-Learning. The authors describe the processes of collaborative knowledge construction and the relevance of many-to-many communication in collective case resolution in asynchronous writing contexts. Our last article, written by Gerson Luiz Martins (Brazil) also explores the education process. In the paper, the author show a comparative study about the research made on teaching cyber journalism in two places in Brazil, where this subject is still in expansion.

As in earlier editions of the JLACR, we expect this selection of papers will only open the debate. Deeper and further research is expected to fulfill the wide potential of the academic community interested in these topics.

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# Technological development of online media in Latin America. The case studies of emol.com, clarin.com, prensalibre.com. and jornada.unam.mx

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## Abstract

The development of the information society, globalisation and technology has generated a process of adaptation in news companies. The technological evolution has produced notable changes in the production, distribution and reception of information. Not all media companies and countries have faced this reality in the same way. Many have been conditioned by the economic and political issues that determine this process. In the case of Latin America, there are differences that respond to the development level of the different countries and regions, and this highlights the existence of a digital divide. Based on four case studies, this article addresses the technological evolution experienced by four online news media companies from different Latin American countries: jornada.unam.mx (from Mexico), prensalibre.com (from Guatemala), emol.com (from Chile) and clarin.com (from Argentina). The objective of the study is to measure the impact of technology in journalism throughout Latin America in order to detect the structural differences. The study is based on the answers of the directors of the aforementioned online news media companies to a qualitative, descriptive and exploratory interview. The interviews took place between March and June 2011. The analysis of the results shows that there has been a remarkable progress and adaptation to the needs of the Latin American Society in recent years, but that there are also differences in terms of development levels according to the economic situation of the different countries, which conditions these companies' forecasts for their technological investment and innovation in the near future.

**Keywords:** technology, online media, production, distribution, reception.

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## **1. Introduction**

Technology has been present in the history of the media since the birth of the press and is considered by some authors as a key pillar of journalism (Chisholm, 2010: 4). However, there are also those who believe that without the advances that have occurred over the years in this field, the media would have not explored new possibilities and functions. The link between the media and the telecommunications sector has led to a processes of convergence (Winseck, 1998); and the momentum behind the information society has led the ICT sector to devise numerous solutions for the development of the journalism industry. As Likes (2010: 187) rightly points out, faced with the changing technology, “content” is still the core of the journalistic exercise. But, undoubtedly, the production, distribution and reception of this content will be conditioned by technology.

The study of the technological development of the online media around the world, which has motivated this specific work on Latin America, indicates that the impact of technology in the media varies across continents and countries<sup>1</sup>. The digital divide, “a byproduct of the existing socioeconomic gaps” (Katz, 2003), predominates and affects certain sectors that harm the development of the media. This is the case in Latin America, a “complex and diverse” reality, where the economic, political and cultural factors clearly determine “dual realities” (Díaz Nosty, 2007). According to Jones (2000), three key players defined the media system in Latin America at the beginning of the 21st century: “the oligarchy, the penetration of American and European capital and the protagonism of the churches”. There are other players that are tangentially derived from this situation: the privatisation of the telecommunications and media sectors, the freedom of expression, and the technological development. All these factors determine the current situation, strengths, weaknesses, and growth prospects of the Latin American media.

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<sup>1</sup> This article includes part of the unpublished results of a wider research project that examined twelve online media companies from around the world. These pages present the first results of this study about the sample of Latin American online media.

## 2. Technology and Latin America

For Jones (2000), to make generalisations about Latin America would constitute an arbitrary act in an “unbalanced” area. The structural differences of this area can be easily verified with an analysis of the countries’ GDP and population (Figure 1), which indicate the degree of development, especially when contrasted. According to Heuser, internet access in Latin America is “deeply elitist” because it is possessed mostly by the middle and upper classes (Franco, 2009).

**Figure 1. GDP and population**

Country	GDP (million dollars)	Population
• Brazil	• 2,172,058	• 192,376,496
• Mexico	• 1,567,470	• 112,322,757
• Spain	• 1,368,642	• 47,150,800
• Argentina	• 642,402	• 40,117,096
• Chile	• 257,884	• 17,248,450
• Guatemala	• 69,958	• 14,713,763

**Source:** IMF, Latinobarómetro and UNESCO. \*Spain was added as a country of reference

The development of a country is also reflected in its technological evolution. Although important technological advances have been made in recent years in the Latin American community, its technological evolution level is still lower than that of many other regions, as the World Economic Forum’s *Global Information Technology Report* (2011: 25) has highlighted. In order to find a Latin American country in the *ICT Development Index* (IDI), produced by the International Telecommunications Union (ITU), we must go down to the 54<sup>th</sup> position, which is occupied by Uruguay. This country has experienced rapid growth since 2008, due to an expansion of the telecommunications market and the high penetration of mobile telephony, which has increased by 105% in the last two years (ITU, 2011: 32). Next to Uruguay are other countries from South

America: Chile, Argentina and Brazil, which occupy the 55<sup>th</sup>, 56<sup>th</sup> and 64<sup>th</sup> positions, respectively. Mexico is located in the middle of this development index, at the 75<sup>th</sup> position. Central American countries like Bolivia, Guatemala and Nicaragua occupy some of the last positions in the ICT: 107, 108 and 114, respectively (ITU, 2011: 47-48).

Other geographical differences are detailed in the *InternetWorldStats* (2011). In the Americas, the USA represents 50% of internet users, South America 33.4%, Central America only 8.8%, and the Caribbean just 2.1%. Similar results were offered a year earlier by the *Latinobarómetro* report (2010). In Latin America, 59% of the population has never had internet access. From the Latin American countries, Chile had the highest percentage of population with internet access, 58%, followed by Argentina and Venezuela, with 54% and 52%, respectively. The countries with the lowest percentage of population with internet access were from Central America: Nicaragua and Honduras, where 71% and 70% of the population, respectively, have never had internet access (*Latinobarómetro Corporation*, 2010).

However, there has been an exponential growth in recent years in some countries, such as Mexico, where the number of users increased five times from 2000 to 2009, going from 5 million to 25 million (Franco, 2009). The ITU report (2011: 32) specifies that Uruguay, within its potential for technological growth, has increased its internet use in the last ten years, and now 40% of its population uses the internet. The difference between the centre and south of Latin America is also reflected on the internet consumption data. While over 50% of the population in Argentina and Chile (66% and 54.8%, respectively) are internet users, only 30.7% of the population in Mexico use the internet. The percentage of internet users descends to just 16.5% in Guatemala and 10.6% in Nicaragua (*InternetWorldStats*, 2011). According to the *World Economic Forum* (2011:27), these countries share a number of problematic features that delay their ICT development: “inefficient policies and the poor education and research systems, which hinder the access to these tools by the largest part of the population”.

These figures and values allow us to understand, in general terms, the extent and intensity of the digital divide between these countries. As Crovi, Toussaint and Tovar

(2006) have pointed out, there are five actors that determine this factor: technology, economy, computer knowledge, users' cultural capital, and policies. The reality appears more complex as more elements come into play, particularly if there are no social, political or economic reasons that motivate the technological development of the media (Navarro, 2003). However, the 2011 Latinobarómetro (*Latinobarómetro Corporation*, 2011: 69) stressed that the differences between countries with internet access can be decreased through the use mobile telephony with internet access, which acts as a "democratising" element. Smartphones have become a valid point of internet access. The latest report by *comScore* (2011b) ranked Chile (78.8%) and Argentina (77%) as the Latin American countries with the highest level of internet traffic via smartphones; and Brazil (39.9%) as the country with the highest use of tablets. A study by the Microsoft Corporation points out that these changes depend on the pressure of young people, and that in some Latin American countries are showing similar trends to those in the USA and Europe, where an increasing number of people uses computers more than television (*Clasesdeperiodismo.com*, 2012).

ICT facilitates the acquisition of "knowledge" (Khohling, Tuftel, & Vega, 2011). To deny the access to knowledge to a part of the population is to deny them a part of the existing knowledge. The transmission and reception of information in households can generate a wave of knowledge in society. As a consequence, and particularly in areas of inequality, it is unquestionable that the media are opinion shapers and institutions responsible "for the consolidation of the democratic system" in Latin America (Marques de Melo, 2009), where the lack of political stability has conditioned the information policies (Lavieri, 1996).

Since the late 1990s, the vortex of globalization arrived to Latin America. McLuhan's global village, Nora-Minc's computerised society, and the digital society (Armañanzas, et al., 1996) became a reality in Latin American society. But these changes were accompanied by the privatisation of the telecommunications sector (Martin, 1999), which led, according to McChesney (2005), to the creation of a "radically bourgeois" media system that does not have any respect for "any tradition or custom that gets in the way of its profit-driven activities". According to Koberstei (1999), another problem, as



in the case of Guatemala, is that most media companies are concentrated in the capital cities while some regions do not have access to information. In this discussion about the global and the local contexts, digital journalism occupies a prominent place (Crovetti, Druetta, Toussaint, & Tovar, 2006).

However, as a direct consequence of this situation, there is a “monothematism” (Martínez Gómez & Lubetkin, 2010) that calls into question the development of the public service that the media should offer in this context (Rockwell & Janus, 2001). Market concentration in Latin America has also led to the analysis of the lack of plurality and the impossibility of exercising investigative journalism, which is clearly the responsibility of these companies (Faundes, 2001). ICT is essential for the social and economic progress of Latin America. According to Villalta (2009), a country that does not promote ICT development will slow down “its economy” and “will suffer a major social impact in the short and medium terms”. We are currently living in a time where “technological development, politics, and journalism are intertwined more than ever in this region” (Lugo & Cañizález, 2010).

However, in spite of all these obstacles, in recent years various Latin American media companies have evolved to respond to the progress and needs of the audience.

It is important to remark that there already existed a spark of technological interest in Latin American media companies which allowed the development of historical innovations. Abreu (2003) points out that before *The New York Times* launched its online edition, Latin American newspapers like *Hoy* (Ecuador), *El Tiempo* (Bogotá), and *Caretas* magazine (Peru) had already launched their electronic editions. On the other hand, since the late 1990s a technological development occurred in some media companies. In Argentina, online newspapers like *La Nacion* and *clarin.com* evolved by offering the largest number of links in their news stories, video images, and connections with radio stations (Echeverría, 1999). Access to new tools, such as blogs, offered journalists the first opportunity to have a more direct contact with the audience (Palomo, 2008). A pioneering journalistic experience has already occurred in Latin America, the organisation of the first online debate through the Brazilian websites Uol and Folha (Colussi Ribeiro, 2011).

Technological changes affect the various phases of journalism. In production, technology should be considered an ally. The constant updating of the available tools should motivate journalists to have an “inherent desire to stay up to date in this regard”, since this determines the “quality of content” and their ability to create “new technology-based structures and formats to present journalistic genres” (Rendón, 2007).

As Vidal affirms (in Franco, 2009:17), technology has not allowed the diversification of sources or content, but has allowed their distribution. As a result, there is an advantage in the areas of dissemination and reach. For example, in some Latin American countries, as in other European countries and the USA, there are more readers of online newspapers than buyers of print newspapers (Crovi Druetta, Toussaint, & Tovar, 2006). Moreover, the online newspapers that have the largest number of readers are also the best-selling print newspapers. This is the case in Brazil (*O Globo*<sup>2</sup> and *Folha* from San Paulo<sup>3</sup>), Argentina (*La Nación*<sup>4</sup> and *Clarín*<sup>5</sup>), and Mexico (*El Universal*<sup>6</sup> and *Reforma*<sup>7</sup>) (Lugo & Cañizález, 2010). Moreover, the expansion of internet access could help increasing “reading levels” in those regions, like Central America, where traditional newspapers usually do not circulate (Chamorro, 2002).

Crovi, Toussaint and Tovar (2006) have demonstrated that there was a dominant trend, in general, of dependency on the print newspapers. In 2007, Barrios considered that technology was fully integrated into the production processes, but that its potential to generate greater audience and participation levels was “limited” (Barrios, 2007). Tejedor (2010a) highlights that the Web 2.0 is currently in its “initial” stage and shows some notable differences across national online media industries. For example, the economic democratisation and liberalisation, as in the case of Mexico, had already boosted the development of citizen journalism (Hughes, 2003) in early 2000. However, once again, technological advances have led to the emergence of a new reality. The media have been aware of the rise of the social networks. The latest study from

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<sup>2</sup> [oglobo.oglobo.com](http://oglobo.oglobo.com)

<sup>3</sup> [Folha.uol.com.br](http://Folha.uol.com.br)

<sup>4</sup> [LaNacion.com.ar](http://LaNacion.com.ar)

<sup>5</sup> [www.Clarín.com](http://www.Clarín.com)

<sup>6</sup> [www.eluniversal.com](http://www.eluniversal.com)

<sup>7</sup> [www.Reforma.com](http://www.Reforma.com)

*comScore* (2011a) confirms that users of social networks in Latin America have increased by 88% in the past year, with a dominance of Facebook but also with differences across countries. Specific applications have also been developed for mobile carriers, although in this case Latin America also has limitations: the high “cost of service and handsets” (Knight Centre, 2009). However, faced with all these incremental advances, authors like Mastrini (2011: 5) stress the need to prevent these developments from affecting the democratisation of information in the printed press, radio, television, and internet, because otherwise we would only advance in “the commercial model of communication”.

### **3. Method**

At the start of the study two points were detected: 1) there was a lack of regional and statistical studies (Chamorro, 2002) and 2) there were certain thematic lines that are highly developed. In general terms, there is a predominance of studies focused on: the influence and intervention of the government in the exercise of the freedom of the press and expression (Chamorro, 2002) (Lavieri, 1996); the influence of policies (Khohling, Tuftel, & Vega, 2011) (Koberstei, 1999); the imperialism exercised in policies (McChesney, 2005), culture and the media (Fox, 1998), the technological development (Martín, 1999), and the commercial sector (Hughes, 2003; Lozano, 2007), where the analyses of Rockwell (2003) and Janus (2001) still prevail.

There was another block of previous publications and research focused on the general analysis of the impact of the information society (Katz, 2003) and technology (Jones, 2000; Lax, 2009). There were also studies on the impact of the Internet and journalism in Latin America (Abreu, 2003; Barrios, 2007; Colussi Ribeiro, 2011), with a greater number of publications dedicated to Mexico (Covi Druetta, Toussaint & Tovar, 2006; Navarro, 2003; Rendón, 2007; López, 2009; Rodríguez & Martínez, 2010). Part of the strength of the analysis of Mexico’s reality is that in this country, as well as in Brazil, the national policies on technology have driven the research in this area (Fox, 1998). In addition there are publications related to specific aspects of the development of the

digital media, like the Web 2.0 (Tejedor, 2010b), the social networks (Torres García et al., 2011), and the participation of audiences (Torres García, 2010). The quantitative work of Said-Hung (2011) stands out due to the creation of an indicator to measure the development of the online media. Other authors have also proposed measuring tools, like the analysis model of Rodríguez-Martínez et al. (2010), the five levels of quality devised by Gómez (2005), the dynamism test of López García et al. (2005: 39-82), and the adaptation level in the design of online media devised by Bernal (2011: 33-34).

The main objective of this research is to study the technological evolution in certain Latin American media companies, to gain a better understanding of the new ubiquitous and multiplatform transmission-reception paradigm. The specific objectives of this research are:

1. To identify the production standards in the selected sample of online media.
2. To detail the technological evolution of the distribution systems of the sample of online media companies.
3. Identify the tools, platforms and business models used in information reception stage.
4. To evaluate the implementation of technology in the sample of media and its impact on the development of the journalistic company.

Due to the scarcity of research on the technological evolution of the online media from their point of view, this article offers a qualitative and exploratory research work that will contribute to the understanding of the “trends, areas, environments and contexts” of development (Hernández et al., 2006: 117). As Tena (2006) indicates, this is not “market research”. Exploratory research does not aim to obtain enough data to make generalisations (Igartua, 2004: 93)<sup>8</sup>, but to acquire a greater understanding of an under-developed subject matter. The descriptive work allows “describing” the technological

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<sup>8</sup> Igartua follows Leik’s preference for internal validity because “it is more desirable to know something even if you cannot make generalisations, than to make generalisations about something that is not known with certainty”.

evolution and making “predictions, even if they are not fully elaborated” (Hernández et al., 2006: 120).

The selected method is case studies. In view of the current economic crisis, it is more necessary than ever to redefine information and business strategies to provide appropriate solutions in this media system, which has an increasing number of platforms and a greater diversification of revenue streams. Consequently, the analysing of cases of success and survival in the current media companies can help us to define future trends (Bernal & Cabrera, 2011: 2). Therefore, these are specific analyses with no statistical or representative values for the Latin American media in general. The results are based on the selected sample and need further confirmatory studies that, through a larger sample, can complement this first approximation. In this exploratory approach, we used a non-probabilistic sample and case studies. To this end, we contacted directives from each of the selected media companies. The online news media companies selected had to meet the following criteria:

- a) Geographic location: in order to represent the different geographical areas and detect differences of technological evolution related to the development indexes marked by the geographical location, we selected two online news media companies from the north-central zone and two from the southern part of Latin America.
- b) They had to be of national scope, present general information, and to have the highest levels of audience, according to Alexa.
- c) They had to offer unrestricted and free access<sup>9</sup>.

Three of the selected online news media companies are ranked as the most visited news websites by Alexa in their respective countries, with the exception of *La Jornada* (Mexico), which occupies the third place in its country. *El Universal* and *Reforma* are ranked by Alexa as the first and second most visited general information online newspapers in Mexico, but their directors rejected the invitation to participate in the

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<sup>9</sup> This distinction responds to the fact that the online edition of *El Mercurio* is restricted, while emol.com is freely accessible.

study. Thus, we selected *La Jornada* because the geographic location was more important for the study, in order to detect the geographical differences.

The study is structured in four sections:

**Production:** This section focuses on the analysis of new technologies applied to the pre-production, production and post-production of news. In their definition of convergence, both Quinn (2005: 29-30) and Huang (2004: 73) highlight the importance of creating journalistic content that can be distributed through various platforms, based on new routines and tools. This section addresses concepts such as the editorial areas, journalist's current technological skills and attitudes towards the acquisition of new technological skills, the process of press coverage, the participation of audiences, and the publication of news from mobile devices.

**Distribution:** This section examines the media, the channels and the formats applied in this process. Internet is not only a medium, "it is a distribution system" (Chisholm, 2010: 4). In this field, the impact of technology has led to the multiplatform distribution, which is the objective sought by the application of all these changes occurring in the communications industry, as Fidler (1997) and Pavlik (1998) have emphasised. This section analyses issues such as the role of the online media in comparison in comparison to the printed press, the development of the multiplatform distribution, the standardisation of formats, and the role of social networks as new channels for the dissemination of informative, journalistic and entertainment contents.

**Reception:** This section analyses the channels used by audiences for the reception of information, as well as the active role of the audiences as producers of new distribution channels. It includes a subsection on the new reception platforms. For Goggin (2010), these devices are as important as the technological advances they bring and their developments in content and applications. This section also addresses such aspects as the communication with audiences, the current business models and trends, the customisation or personalisation of content, the possibilities of new platforms and the importance of design.

Technology: This section focuses on the importance that journalistic companies grant to the technological evolution in their development, as well as the work tools they have developed, and the lines of work oriented to the current and future technological adaptations. For Busswood (2010: 3), innovations should be viewed as complementary formulas that provide opportunities for “growth and expansion” to the industry.

The study has had four methodological stages. The first stage is the state of the art review of Latin America’s journalistic reality, in terms of the factors that can promote their development and determine the idiosyncrasies of this reality. This part has been described in the preceding chapter and sections.

The second phase involved the field study and the sample selection.

The *Clarín* newspaper was established in 1947 (Consuegra, 2004) and is regarded as the “prototype” of online journalism in Latin America (Abreu, 2003). It is the largest Argentinean media conglomerate (Martini & Luchessi, 2004). Clarin.com was born in 1996 and since 2008 the editorial offices of the print and online editions were merged (Grupo Clarín).

*Prensa Libre* was created in 1951 to become Guatemala’s first newspaper (Consuegra, 2004). *Prensa Libre* is one of the newspapers of Central America with more than 50 years of existence. In addition, it dominates the country’s market with *Nuestro Diario*, the most-sold popular newspaper in the nation (Chamorro, 2002).

*La Jornada* was founded in 1984 (Consuegra, 2004) in Mexico. Since its inception it was characterised by its excellent photography and its “alternative position to the official discourse” (Saramago, 2004). Its online edition was launched in 1995 (Wikipedia, 2011).

*Mercurio* was founded in 1827 in Valparaiso, Chile (Consuegra, 2004). Its online edition is called *El Mercurio On Line* and it is known by its acronym EMOL. The online edition was launched to compete with the websites of *Terra* and *La Tercera* (Wikipedia, EMOL, 2011).

The third stage consisted of empirical research, which was based on a purpose-created electronic questionnaire that included qualitative and quantitative questions seeking to obtain the most complete and relevant data to meet the research objectives. The questionnaire and the objectives of each question are synthesised in the following table.

**Table1. Questions and objectives**

QUESTIONS	OBJECTIVES
<b>PRODUCTION</b>	
1. How is the digital editorial department organised?	To identify areas, professional profiles, tasks, products...
2. What technological skills are required from journalists applying for a position in the digital editorial department?	To assess whether the interest in technology training is increasing.
3. Describe the organisation of the daily news coverage in your company	To determine the degree of technological dependence that exists in each phase, and to determine whether the Internet is the backbone of the news production cycle.
4. Is audience participation positively or negatively perceived?	To confirm the impact of the audiences as content producers within the medium's dynamics.
5. What tools are employed by journalists to write or edit pieces of information?	To identify the specific technological applications that have been incorporated into the production routines
6. Would you like to produce and edit news stories completely from mobile devices (like smartphones and tablets)?	To assess the impact of the smartphones and tablets as editing support tools.
<b>DISTRIBUTION</b>	
1. Is there a policy in your company about publishing news first on the online or printed editions?	To determine whether the online media is autonomous or dependent of the policies of its paper counterpart, and whether a different content policy is established for each of the company's platforms.



2. Which channels or platforms are used by your company to offer or disseminate its contents?	To evaluate the developments made in the multi-platform distribution system.
3. Which formats are used by your company to distribute media contents? (SMS, jpg, avi, gif, html, xls, etc.)	To determine whether a unification of formats exists.
4. Does your company consider the social networks as a new efficient way to distribute its information through audiences?	To determine whether the social networks also act as a new channel in the distribution of information.
<b>RECEPTION</b>	
1. What technological possibilities does your company use with the audience?	To determine what basic technological services are offered (printing, sharing, networks, etc.)
2. On which business model of e-commerce of digital content and information goods is your company based? What model do you believe will prevail in the future?	To identify the business innovations and developments made by the online news media companies.
3. Do you believe that the customisation of content is an ever increasing trend?	To determine whether content customisation is an increasing trend and whether media companies are interested in developing it in the future.
4. Currently, there is a diversity of platforms (paper, computer, mobile phone, tablets, etc.). What do you think will happen in the future?	To determine which are the advantages or disadvantages, strengths or weaknesses of these devices?
5. Do you think news design should be changed in tablets and mobile phones?	To assess whether specific applications should be developed and what graphic design is more effective.
<b>TECHNOLOGY</b>	
1. How important is technological innovation in your company?	To determine whether technological innovation is considered as a primary or secondary area of development in the company.
2. Which are the main lines of R&D work in	To identify the most predominant types of

your company?	R&D projects.
3. What tools have been developed by the technical department of your company?	To identified the technological developments that have been implemented.
4. Which technologies should be improved to enhance the production, distribution and reception of journalistic information?	To identify the technologies in need of improvement.
5. In y our opinion, which will be the technological needs of the media in the next five years?	To identify the future trends in journalistic technology.

**Source: Authors' own creation.**

The editors/directors of the selected online news media companies were contacted in January and February, 2011. Their answers were collected between March and June, 2011, and the analysis of the results was carried out between July and August of the same year. The answers were encoded according to topics, then classified according to keywords, and finally classified in subcategories related to each area of analysis. An identification code was assigned to the responses of the directives of the four media companies: clarin.com: CL; emol.com: EM; jornada.unam.mx: JR; prensalibre.com: PL.

#### **4. Findings**

The journalistic production in these online media reveals that the organisation of the staff has been adapted to the needs and demands of the Internet. On the one hand, separate sections have been created in such a way that the digital edition has generated its specific areas of information. The sections of clarin.com (Images, Sports and Entertainment) and emol.com (News, Economy, Sports, Tendencies, and Woman) show that the volume of information has imposed a new organisational need among the staff.

“There is a single table for the interaction between the editors-in-chef, the cover artist, the writers, the graphics editor, and the social networks manager. The only exceptions are the sports section team, which works separately and is next to the

sports section of the printed newspaper, and the entertainment section team, which only has two or three members located a few meters away from the online edition working table. Sports and Entertainment develop two sub-websites, whose headlines are offered on the homepage. There are also two special cases: the economy supplement, called *i-eco*, which has some autonomy but offers its main news in our homepage, and the culture section, which is called “Ñ” and also works independently with the difficulties that this implies.” (CL)

On the other hand, some professional positions specific to the digital newsrooms have been reinforced. The four companies under analysis have multimedia editors, and clarin.com also has a community manager.

An important feature is the production autonomy of the editorial team in relation to the main medium: the print newspaper. In the case of clarín.com and emol.com, their editorial newsrooms are independent and autonomous. This separation causes different work routines that are adapted to the demands and needs of their respective editorial newsrooms.

“In the early morning each channel makes a plan for that day’s coverage, and this is shared with all the coordinators, who manage the main cover and the channels’ sub-covers. There are weekly meetings to coordinate special projects and weekend’s thematic coverage, when we offer special content.” (MR)

Prensalibre.com does mention the participation of the digital newsroom team in the meetings of the printed newsroom team, to take advantage of the meetings.

“At 8.30 there is a planning meeting where the sections editors share their coverage of the day. Everybody participates including the digital newsroom staff. The coverage is defined jointly. At midday, there is another meeting in which the results of the coverage are shared. At 4:00 PM, there is a meeting to define the cover and quickly review the final approaches of the articles, the main headline, and the titles in the cover”. (PL)

The same newspaper insists that, due to the continuous production cycles, there is a need to create various work schedules to give full coverage throughout the day. Another particular mention, in the case of clarin.com, is the use of specific work technologies which are different than those used in the printed edition, and the consolidation of the online multimedia journalist, whose integration does not occur in the printed edition:

“If online editors go out they will have a mobile phone, to record and/or make calls, or a flip type camera. If a journalist from the traditional printed newsroom team goes out, the most likely is that he or she will only report by phone (and briefly), while the images (photos, videos) will be the responsibility of a photojournalist and a cameraman”. (CL)

Technological training is not considered a crucial issue to develop the work of journalists by any of the four analysed media. However, they recognise that minimum skills should be required, and later they can be improved in the company with training courses, in the case of clarin.com and prensalibre.com. The latter online newspaper requires “basic multimedia knowledge”, while emol.com values skills to use “Dreamweaver and Photoshop”. In addition to this software, prensalibre.com also values skills to use Flash applications.

“Their work is rather oriented to reporting and editing, although they must use such tools as Twitter. There is a group of designers who are in charge of creating content in PHP and Flash”. (MR)

The participation of audiences, especially through social networks, is generally regarded as a positive factor by the four online media. However, there were differences of development due to the massive presence of users in these spaces. For emol.com, social networks are a controlled area which has also caused an increase in followers, between “about 40,000 and 50,000 on Facebook and Twitter, respectively”. Emol.com is also the “main generator of tweets on the Web”.

“Since few months ago, we have strongly promoted the participation of the audience with the full incorporation of the major social networks in Chile: Facebook and Twitter. They are present in all the sections through the “Share”

and “Like” buttons, and the Facebook comment box in almost all the news items.” (EM)

However, even if there is a specific figure in clarín.com for the management of audience’s participation, they recognise that this should be managed “carefully” and that “the lack of staff prevents, for example, the moderation and publication of comments in many other news stories”. In the case of prensalibre.com, they admit that, for the time being, the management of this participation trend is “beyond their abilities”. Jornada.unam.mx point out that participation is “fundamental” and that they try to assume the audience has “the best possible criteria”. Therefore, they show interest in feeding from the information provided by users.

The most commonly used tools are the desktop and portable computers, especially those produced by Dell, as well as smartphones, especially Blackberry. Despite the presence of mobile telephony in news production and the editing applications included in smartphones, journalists say they prefer to do the editing work on their personal computers located in the newsroom. The representative from jornada.unam.mx considered that it is “less complicated” this way, but also recognises the benefits of this new method of production. For clarin.com, mobile devices are useful for “urgent” news, while at emol.com the journalists consider that “the more portable, the better”, but also remark that “a final review is always needed in the traditional newsroom”.

With regards to the types of contents published in the online and printed editions, there is not a fixed decision but a tendency to limit the publication of exclusive news stories to the printed edition, while the general information and the leaks (CL) have their natural place in the online edition. Alternatively, as prensalibre.com points out, situations are evaluated depending on the “context”.

“70% of the times we publish firstly on the website, but relevant, exclusive or collectively-created journalistic works are always published first on the print edition.” (MR)

Emol.com has the only editorial newsroom that is considered independent from the decisions taken in its paper counterpart: *El Mercurio*.

The four media companies contemplate the possibility of news distribution in other platforms (Figure 2), especially on portable devices. However, only two of these online media companies, clarín.com and emol.com, have developed specific applications for iPad. In fact, clarín.com has created two apps, one for the main online newspaper and another for the “Ñ” supplement. In the case of prensalibre.com, it only offers the alternative transmission of news via SMS. The four online media embrace the use of social networks.

**Figure 2. Multiplatform distribution**

clarín.com	emol.com	prensalibre.com.gt	jornada.unam.mx
<ul style="list-style-type: none"><li>• Smartphone/tablet: iPhone, SMS, N95, Blackberry, Nokia, iPad (clarín.com + Ñ)</li><li>• Clarín web TV</li><li>• Social Networks: Facebook, Twitter.</li></ul>	<ul style="list-style-type: none"><li>• Smartphone/tablet: iPad, iPhone, Blackberry, Android, Windows Phone 7, Emol AR.</li><li>• Internet Mercurio</li><li>• Social Networks: Facebook, Twitter</li><li>• LG browser</li></ul>	<ul style="list-style-type: none"><li>• SMS News, smartphone application.</li><li>• Social Networks: Facebook, Twitter</li></ul>	<ul style="list-style-type: none"><li>• Mobile PDA edition</li><li>• Smartphone/tablet: iPhone, iPod touch, iPad</li><li>• Social Networks: Facebook, Twitter</li></ul>

**Source: Authors' own creation.**

Depending on the language in which they want to transmit their information, journalists must know the formats available to distribute the information, and their specific features. The study verified the unification of editing formats: JPG for images and AVI for videos. The analysed online media admitted that the social networks can help in the distribution of information, at least “incipiently”, but also have real doubts about their “effectiveness” (CL). They point out that there are obstacles for this development, like the shortage of staff (JR), and the lack of an independent system to send content to the audience so that they can share it with other users. (PL)

In terms of reception, all the analysed media provide basic technological possibilities like the sharing or printing of news, and have incorporated the option of sharing through the social networks. It is precisely in this area where there has been more development. The four online media companies provide the option to share content in Facebook and Twitter, among many more networks. Clarin.com, for example, offers up 329 options to share in networks.

The dilemma of offering content for free or not generates different views. For clarin.com, emol.com, and jornada.unam.mx the business model for the near future is the free system, but there are some particularities. For emol.com, the decision is firm:

“We have opted for the free model. I think both models have opportunities for the future, depending on the product. In our case, revenue has increased strongly in recent years, which generates profits and consolidates the business as such.”  
(EM)

Clarin.com points out that its website will remain free, while mobile applications will be sold. Therefore, there is a diversification of business models according to the platform. Jornada.com.mx believes that “payment services will prevail”. The only company that bets on the payment for content in the future is prensalibre.com.gt, as a way to “differentiate itself from the free online newspapers and the online aggregators”. In this line of debate, the analysed media do not content consider customisation is a demand among their users, but for emol.com this would make more sense in the area of local news. In fact, for clarin.com content customisation is not an immediate need and the news media, as agenda setters, will continue to exercise that function.

“There is still space for the large media companies to edit, rank, and evaluate all the themes aimed at the general public. However, the customisation of content can be simultaneous and simultaneity will be inevitable.” (CL)

Prensalibre.com does not consider that content customisation is on the rise, but believes that the number of “more defined audiences” is always growing.

A new field in media studies is the analysis of mobile devices like smartphones and tablets, and their applications. The online media companies under study do not see the traditional computer-based online editing as an enemy, but as a complementary method. Therefore, they defend the coexistence of all these platforms, although with some peculiarities.

For clarin.com, tablets have the disadvantage of high cost, while computers and smartphones are better positioned. Emol.com clearly believes in business diversification through these devices. Jornada.unam.mx points out that these devices “increase the number of readers”, but that they have a weakness in terms of design: “long texts loose effectiveness in them”. Prensilibre.com considers that in the future audiences will consume more information through tablets and smartphones due to their “portability, mobility, customisation-ability, and multimedia interaction”.

To develop this type of business is necessary to adapt the design of applications and web browsers to these new devices, for example, with “shorter texts and a higher prevalence of images” (CL), “with a design for each platform” (EM), and the adoption of “youth-oriented formats” (JR). Prensilibre.com specifies that design is not as important as the adaptation of content to the different devices; for example, “breaking news should go to mobile devices”, and “multimedia content” to tablets. In other words, “a more personalised experience with content”.

All these changes in the editorial newsrooms would not have been possible without a policy of technological development in the analysed companies. A relevant case is clarin.com, whose chief editor highlights their “effort to implement all the technological innovations that have been developed”.

“The influence of the technological innovation is growing. The company was taking note of this need. We tend to concentrate the technological advances in the newspaper’s headquarters, but we are still outsourcing the control of the networks and part of the web design.”

In this sense, the study detects a different perception depending on the geographical location of the news company. While countries from the south of Latin America



(Argentina and Chile) acknowledge an interest in the development of internal products and design improvements; countries from the north and centre admit that they only apply “programing and design” changes (JR).

“Everything is developed internally. The servers are abroad. But we need to prioritise technological innovation more.” (JR)

The lines of work defended by these news companies are related to “development and innovation” (EM, JR), anything that improves “audience reception” (PL), and “incorporates the emerging technological innovations” (CL). For the moment, these media have created specific tools such as CMS or iPad apps (EM), operation and design programs (JR), and applications (PL).

The study also reveals some weaknesses that should be solved with technology. In one case there were technical constraints, and poor internet connection in its country (PL). Another factor is that technology should not impose a certain way to make and consume media products. In other words, journalists and users should not have to adapt themselves to technological requirements. Instead technology should be adapted to the needs and requests of these sectors.

“They should improve things by taking into account the needs of readers and journalists, and not only the technical issues of the still so-unknown internet world” (JR).

However, there is another decisive factor in this development: the attitude of the journalist towards the technological innovations.

“The main difficulty is the lack of training of the staff, including staff from the online newsroom but especially staff from the traditional newsroom who cling to the print newspaper and almost always lack the will to learn new skills” (CL).

The media companies also proposed the idea of standardising the applications for portable devices in order for them to be able to be present “in all devices” (EM).

The technological needs in the coming years will continue to be conditioned by issues of development and the social implementation of technology. For example, for clarin.com it is necessary “to improve connectivity and incorporate new platforms”, while for emol.com the challenge is “to develop flexible CMS that are adaptable to any platform”. Prensalibre.com is unaware of the needs and jornada.unam.mx suggests that the improvements should be made “faster” in the multimedia environment.

## **5. Discussions**

We agree with Díaz Nosty’s (2007) assertion that the socio-economic difference and the geographical location determine the degree of technological development in the news media under analysis. Most newspapers have about ten years of existence, and have evolved in their design, format, and generation of content. The differences in internet access published by *Latinobarómetro* (2010), as well as other reports highlighting the increase in internet access in Mexico (2009) and the solid infrastructure in Chile (Waverman, 2011), are reflected in the technological policies followed by these online news media companies.

As Crovi, Toussaint and Tovar (2006) indicated, this study also detected that in the production process the online media companies under analysis still depend on their paper counterparts, although in clarin.com and, more markedly, in emol.com the independence is greater or total. The paper and electronic newspaper editors are separated, and adopt new working routines and other tools to cover information, as in the case of clarín.com.

The introduction of specific positions for the various sections of the digital newspapers, like the multimedia manager, the online cover artist, and the community manager, is also remarkable. Although it is not obligatory, the online media directives feel that the online journalist needs to have basic technological knowledge for the exercise of the profession, for example in video editing and photography. The opinion of the community of users has also been incorporated in the production of content. The community of users acts occasionally as a source of content through the social

networks, an increasingly necessary tool of consultation for the journalist. In the four cases, the use of the desktop PC is predominant and, except in specific issues, the use of mobile devices for the editing of the information is non-existent.

The unification of editing and distribution formats in the newsrooms of the four online news companies is clear. Like Chisholm (2010), these companies see the Internet as a distribution channel that so far has not had great effects. They seem aware that the treatment of digital information can be improved in other multimedia channels, particularly in the new mobile media devices like smartphones and tablets (iPad). However, except in the case of *prensalibre.com*, which may be conditioned by the shortage of these media devices and the small percentage of the population that can afford to buy them and use them (51% of the population is indigenous), as the Knight Centre's 2009 report indicated, the study detected a greater development of these opportunities in Chile, Argentina and Mexico, which makes us think again that these countries have a greater technological development and implementation, as Waverman (2011) had already pointed out.

The internet is still the preferred platform to publish general or urgent news, while the publication of exclusive news is exclusively for the printed press. Therefore, and for the moment, added-value content is only provided to the printed press and not to the web. *Emol.com* is the only medium that does not face this situation, due to its clear independence from its printed counterpart: *Mercurio*. The social networks deserve a special mention, as their massive use (*comScore*, 2011) in Latin America has led the four online media to bet strongly on them.

As for the reception, the study detected, first and foremost, a growing interest in the new mobile media, which are limited by the new business model of paid-for applications; while the web remains open and free of charge to the public. Therefore, in the new portable media devices, the online press has found a diversification of the business and an alternative stream for revenue. With regards to the development of specific applications for the new platforms (smartphones and tablets) there are four pillars that must be taken into consideration: the device's operating system, the target audience, the creation of specific designs, and the adaptation of content to the specificities of each

media device. In all cases, mobile media devices offer other basic technological services in addition to news services, like printing, sharing, and emailing.

In terms of technological evolution, the study detected a greater level in emol.com and clarín.com, which have a stronger technological plan, while prensalibre.com has technical limitations that impede its development. The creation and improvement of the CMS and the development of applications for mobile media devices are the future lines of action for the four companies. According to Rendón (2007), clarin.com and emol.com stress that journalists need to develop an interest in technological developments so that they do not become an obstacle in the development of the medium.

## **6. Conclusions**

The study identified standards in the four online news media organisations. All the companies have specific professional positions in their editorial newsrooms. There is a predominant use of desktop and portable computers and mobile phones as working tools. There is a need for technological training in photography and video editing programs, mainly to improve the multimedia content. Regarding the impact of technology, there is a need to restructure the digital newsrooms and to adapt them to the updating routine of the Internet. In terms of distribution, there is a standardisation of formats and the use of social networks to distribute information. In terms of dissemination, there is a need to use alternative channels and a multiplatform distribution system.

In fact, the massive use of social networks in Latin America has motivated the four analysed companies, regardless of the economic development of their countries, to strongly bet on their implementation. The interactive tools and the interest in mobile platforms are the two main technological axes in the reception area. The solution applied in this sector is the generation of specific applications and the relocation of the niche markets to where the audience is located. With regards to technology, there is a common commitment to development. There is unequal investment that in this case is

linked to the structural differences across Latin American countries. Similarly, technological innovations produce a need for adaptation that still has to be overcome by journalists.

There are some trends that are summarised in the use of the synergies in the restructuring of the newsrooms with staff specialised in specific areas in order to enhance the value of the online press. The trend towards business concentration makes us think about the importance of enhancing the multiplatform distribution system. In the case of Latin American countries, the lack of internet access in certain areas reduces the thematic variety of media contents, even more so in the numerous rural areas that have no access to traditional newspapers and only receive information from the audiovisual media (particularly radio). Mobile applications and their revenue streams are the new lines of development in the area of reception. In the field of technology, the trend is to continue incorporating innovations, which is supported by the editors and journalists on the payroll. It can be predicted, once again, that each country's socioeconomic structure acts as a boost or obstacle to the development of the online news media in Latin America, which complicates the implementation of innovations, and opens two different trajectories: innovation in the case of Chile and Argentina; and development in Guatemala and Mexico.

In conclusion, since the launch of the analysed online news media, the political and economic evolution in some parts of Latin America has allowed the development and consolidation of the digital press, although there are clear differences in growth. Precisely, the different levels of technological development detected in this research, as a result of the different socioeconomic policies and developments across countries, suggest the need to undertake further studies to examine the reality of the online press based on a larger sample of online news media companies from a larger number of Latin America countries. Therefore, this research aims to serve as the basis for subsequent studies that, with other methods (e.g. ethnography), aim to deepen into the journalistic routines of these online media and their daily realities. Finally, this study can serve as a starting point for studies involving a larger sample of online news media

companies and regions, which can allow the identification of more subtle differences depending on the geographical and socioeconomic diversity.

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# From Zines to MySpace: A Case Study of Media Infrastructures and Counter-power in the Puerto Rican Underground Punk Scene

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## Abstract

I examine the role of different media technologies in the construction of a punk media infrastructure in Puerto Rico. While punk cultures have always relied on media self production for sustaining a space that is explicitly against capitalist modes of production, the use of digital technologies such as Myspace have enabled the creation of meaningful networks of cultural production, seemingly resulting in media “counter-power.” However, punks’ use of digital technologies foregrounds an inherent tension of resisting within capitalism, as networks of information and exchange emerge, obey, and are sustained by a logic of globalized capital and its implications. I contend that this inherent tension must be theorized in order to build upon a useful ontology of resistance in capitalism.

**Keywords:** Network society, punk, Myspace, DIY culture, social networks, new media, digital production, counter-power

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## **1. From Zines to MySpace: A Case Study of Media Infrastructures and Counter-power in the Puerto Rican Underground Punk Scene**

The use of technology has been a fundamental aspect of punk media making since the beginning. Media tools are crucial to punk infrastructures in that they provide efficient and low-cost means for producing and disseminating punk commodities conforming to a Do-It-Yourself (DIY) philosophy. In many ways, punks use media technologies as neutral resources for achieving a production objective. However, this is problematic. While new media technologies have taken a central role in the development and sustainability of political practices of media self-production, such as that of punk, technologies are also crucial in the sustenance and expansion of global-capitalist modes of production. Punks' rejection of the capitalist logic is seemingly trapped within a broader system of production inasmuch as technologies epitomize a post-industrial machinery of global expansion, diversification, and branding.

In order to gain a deeper understanding of punks' uses of technologies and their fit within a politics of media use, I examine how Puerto Rican punks, by creating what I call media infrastructures, have incorporated different media tools into the development of an "independent" space of cultural production and examine the political implications and role of new media in relation to spaces of oppositional cultural production. For this, I draw on ethnographic and historiographic research on the Puerto Rico punk scene, focusing on two media platforms—fanzines and Myspace—in order to exemplify the ways in which punk media networks, as examples of self-production, articulate complex connections within the broader media landscape.

If, as Croteau (2006) asserts, "the interesting thing about self-produced media content is that, so far, it has largely evaded systematic study by media scholars," the foregrounding of the connections that contextualize people's media-making processes may prove insightful for locating, texturing, expanding, disseminating, and intervening in the conjunctures through and against which technologies and uses of technology converge or collide, secure or re-articulate larger networks of power and capital. I present the case of punk media infrastructures as an example of "mass self-communication," which Castells (2000a, 2000b, 2004, 2007, 2009) conceptualizes as

media-making practices within the context of the network society and through horizontal networks of communication (Castells, 2007, p. 239). I claim that, while media practices such as punk cultural production may be seen as examples of “counter-power,” such practices are always caught within an inherent tension of signifying resistance while relying on the mechanisms that, at broader levels, help secure power. I conclude by discussing the relevance of contextualizing the complexity of oppositional media making practices within capitalism and emphasize the theorization of paradox for any ontology of resistance within the network society.

## **2. New Media, Networks, and Punk Culture**

Since the development of punk culture in the 1970s, punks have relied on many tools for constructing cultural spaces that serve to reproduce punk cultural production and ideology. Rudimentary media tools such as letters, pamphlets, posters, flyers, and graffiti have been part of the punk logic as sites of representation and expression. In his book about the 20 years of punk culture in Spain, Alfonso (2002) talks about the surprising development of punk, given the “disadvantage of using modes of transmission that are fundamentally subterranean.” He continues:

In Spain, punk’s evolution was absolutely parallel to its international development. This is outstanding, given that information was disseminated through letters. There were no magazines but fanzines of very limited circulation, records were not officially distributed as it is done today and, obviously, television was out of the question (a nightmare in itself). So how did the dissemination of music, styles, ideas, information, etc. come about so swiftly? That’s easy: It was the necessity prompted by difficulty; the fanzines; the merciless reproduction of tapes as the only way to listen to bands; word of mouth; and the progressive development of a scene which, through the years, became a vast worldwide network. (p. 5, translation mine)

Punk culture early on adopted a DIY logic of production that “championed musical amateurism [and] professed anarchist politics,” with bands releasing records on small

independent labels (Taylor, 2003, p.14). This DIY philosophy is still at the core of punk ideology, and the accessibility of new media technologies has brought new meanings and possibilities to it. Digital technologies of reproduction and distribution have made possible the configuration and propagation of punk media infrastructures at an amazing rate and with great efficiency. This is exemplified by O'Connor (2003, 2004), whose ethnographic research on punks' use of the Internet concludes that "it is possible to describe the conduits by which ideas and social movements travel. In the case of punk it is through the international circulation of recorded music, zines and bands on tour" (O'Connor, 2004, p. 44), which today mostly occurs electronically.

Thus, electronic/digital conduits are crucial to the sustainability of such networks. The networks, in turn, result in media infrastructures. Thus networks (of mediated relationships of production and exchange) power sub-systems of production that exist within larger corporate, political, and economic structures. Further, the fact that infrastructures work "within" larger structures (or networks) does not preclude them from being fully developed systems.

In punk, a *politics* of composition and realization should be at the base of the analysis. Technologies do not necessarily enable the DIY in punk; rather, digital technologies, echoing DIY characteristics in its design and accessibility, interpellate punks into incorporating and, therefore, articulating uses of new media technologies according to ideological prescriptions. Talking about the digitization of music culture, Sandywell and Beer (2005) emphasize that "the contemporary music scene is increasingly based upon the development and dissemination of computer-based software packages for homes and studios" (p.109). According to Hesmondhalgh (1999), such technologies have made it possible for the independent music business to develop "an aesthetic based on mobilization and access [that] encouraged the unskilled and untrained to take the means of musical production into their own hands" (p. 37). In this respect, digital technologies foment punks' adherence to a praxis of self-production. Such relative independence relates to Jones' (2002) discussion of "disintermediation," or the disentanglement of music production from the corporate webs of material production, distribution, and dissemination. Taken to the extreme, "disintermediation would



essentially result in de-industrialization, in individual control of all facets of the creative process” (Jones, 2002, p. 222).

The idea of network becomes fundamental to the development of punk media infrastructures, since networks function as one of the main mechanisms through which such infrastructures thrive. The notion of network has acquired different connotations as it relates to media and business practices. Manuel Castells has extensively examined the nature and functioning of networks. For Castells, informationalism and constant developments in micro-electronic technologies have led to profound transformations in human structures, such as economics, politics, communication, and social organization, resulting in what he and others early-on conceptualized as the network society. In this respect, networks are decentralized mechanisms that rely on nodes that are capable of being repositioned or reconstituted, and are supported by technologies that have the capacity to “self-expand their processing power because of their recurrent, communicative ability” (Castells, 2004, p. 10).

The network society, according to Castells (2000b), is founded on the “spatialization of flows” (p. 448), although networks themselves have to be seen as open structures that are in constant expansion and reconfiguration inasmuch as they share a common code (p. 500). This view evokes the complexity of networks, as exhibiting both a structural and decentralized character, as the network itself conforms the boundaries within which extensions and dispersions take place. In Castells, nonetheless, the complexity of networks does not necessarily represent unrestricted opportunity of configuration. According to Castells (2000a),

All there is in the network is useful and necessary for the existence of the network. What is not in the network does not exist in the network’s perspective, and thus must be either ignored or eliminated. If a node in the network ceases to perform a useful function it is phased out from the network, and the network rearranges itself—as cells do in a biological process” (p. 15).

The previous passage exemplifies the technological deterministic dimension (see Cardoso, 2006, p. 49) in Castells' analysis, which prompts a notion of networks as "intelligent" structures that, through an inherent organizing interconnectedness, prescribe directions of movement that do not necessarily emerge spontaneously, but are preconditioned by a finite assemblage of possibilities. Van Dijk (1999) has contended this view, and has emphasized not necessarily the mechanics of networks as a structural system, but the role of actors in shaping the dimension, directions, and ramifications of the networks themselves. In this respect, van Dijk highlights the human component behind networks, inasmuch as "the basic elements of the network society are not so much networks themselves but individuals, households, groups and organizations *linked by these networks*" (p. 24, emphasis in original).

The idea of network that can be observed in punk infrastructures combines these perspectives. Like any idea of network, it retains a sense of mechanic interconnectedness. However, it foregrounds a mechanism that is actively constituted by social actors and relations. Punk networks comprise diverse mechanisms that facilitate local and international relations in the service of a punk ideology, and their reliance on DIY as a mode of production is primarily made possible by the creation and development of social networks that power media making. These networks are supported by relations, practices, and technologies that make possible the dissemination and sustainability of the infrastructure. For instance, mail correspondence, flyers, zines, record labels, and touring have played a central role in the consolidation of networks in Europe and the United States. However, the emergence of technologies of interconnectedness has greatly contributed to the international growth of punk media infrastructures. Self-production hardware and software, such as digital recording and self-publishing technologies, have enriched the punk media infrastructure by facilitating the punk cultural production that is circulated through its networks.

### **3. Puerto Rican Punks and Media Making**

The Puerto Rican punk infrastructure presents an important example of self-produced media. As observed by O'Connor (2003, 2004) in Mexican punk scenes, the Puerto Rican punk scene has developed in a subordinate relation to punk scenes in the United States, Spain, and England. While these "first-world" punk scenes have a solid history of punk culture that has been evolving since the early 1970s, the Puerto Rico punk scene only began to emerge in the late 80s and did not solidify until the early 90s. The evolution of Puerto Rican punk, contrary to these first-world scenes, grew and evolved despite a lack of cultural support, venues to play, and a culture of media making.

However, the Puerto Rican punk culture has rapidly grown into substantial cultural and media networks of production and exchange. Puerto Rican bands have successfully managed to connect to the international punk scene, with many bands having toured in Europe, Latin America, the United States, and Japan. In addition, the past years have seen a turn in Puerto Rican punk cultural production with the emergence of several independent, and relatively successful, record labels. Even if rudimentary technologies such as those described by Alfonso figured in the early development of the island's punk scene, most of these low-tech technologies were quickly replaced by more sophisticated ones, such as digital media. It is of great importance, then, that it has been mostly through the use of digital technologies that Puerto Rican punks have been able to build a strong presence within the larger international punk networks.

### **4. Low-tech: Zines**

In the early development of the Puerto Rico punk scene, a handful of people developed consistent exchanges with bands from all over the world through correspondence. Through these first connections, Puerto Rican punks engaged in the exchange of material and cultural commodities, such as zines and records, which in turn made it possible for ideologies and philosophies to circulate. These exchanges served as cultural "exportations" and "importations" that contributed to, at one level, the

consolidation of a punk scene with an increasing punk cultural capital and, at another level, the insertion of that scene into a broader network of scenes.

Taína is among the first punks to have actively worked toward the construction of a Puerto Rican DIY punk media infrastructure. She was one of the first to engage in correspondence with bands from abroad, clearly contributing to the eventual insertion of the scene into the international punk circuit. Through the years, she has made numerous contacts in countries such as Venezuela, Finland, Germany, France, Spain, and Mexico.

“Pen-palling” (making friends through correspondence) was always an early punk means of communication. One of the main reasons that prompted Taína to pen-pal was “to get to know how other scenes are, what they do, what their bands sound like” (Interview).<sup>10</sup> For instance, during one of my interviews, Taína recalled having found a letter from Cuba dating from 1995 which described the Cuban scene, a rare opportunity for punk cultural exchange.

Correspondence also entailed the exchange of commodities, in relation to which the fanzine gained a prominent role. Zines served as a cultural window to other scenes and, most importantly, as access to their cultural production. They also provided access to a network of exchanges and circulation, a “network of micro-communities,” as Duncombe (1997) asserts in his pioneering study about zines (p. 179). For instance, zines compelled Taína to write to people and connect:

I basically started reading fanzines—Maximumrocknroll and zines from other countries—because you already have all the addresses in the zine, so it’s just a matter of sitting down and writing. The faster and more letters you write, the more people you’ll meet and the more stuff you’ll get. I wanted to learn about other bands and music. I wanted to know how scenes were in other countries.

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<sup>10</sup> The research presented comprises unstructured interviews that took place during the months of May, June, July, and August of 2006 in San Juan, Puerto Rico. In addition, it is supported by ethnographic research around band practices, punk shows, and punk gatherings, on which I rely for context and analysis. I also collected and examined original cultural artifacts, specifically fanzines, as historical documents. All interview translations are mine.

And how does one learn about all that stuff? Through the “scene reports”—because all the zines had some form of scene report—and through music reviews and interviews. And that’s how you would make all your contacts. After a few years, you realize that you have some fixed friends. For example, that’s how *Cojoba* [her band] was able to organize [tours], through all these people with whom we’ve had contact over the years by means of conventional mail. Before the internet, we already had all these friends. (Interview)

Zines serve both as a point of convergence for cultural identification and as a medium for reproducing and actively circulating culture. David James writes that punk zines,

Apart from the music, are the main forum, not simply for communication about punk, but for its construction; they are the place where the nature of punk—the particular social vocabularies and ideological formations that constitute it—may be socially constructed, argued and clarified. (cited in Bloomfield, 1991)

One of the first zines to be produced in the island was *Zine Vergüenza*, produced, edited, and mainly written by Taína. The zine, published bimonthly, ran consistently for about three years (1997 to 2000)—contrary to many other local zines, which would produce from one to three issues and then disappear. What made *Zine Vergüenza* unique was its politics of production. First, it pioneered the DIY philosophy as mode of production in the local scene. For instance, the first seven issues of the publication were literally produced by hand by Taína and punk collaborators. This first stage in the production of the zine featured the use of the typewriter, handwriting, and collage as tools of design and production and the photocopier as a technology of reproduction. In this respect, each issue took effort to make, featuring drawings provided by collaborators, clippings from other publications and zines, and pasted-up text written with a typewriter. Each issue was then photocopied and assembled by hand. People could either buy it at shows or order it through the mail by sending one dollar and two stamps to Taína’s residence at the time—her parent’s house.

Second, it took political education and awareness as a paramount goal. DIY philosophy was not only present in the production politics of the zine but also in its content. On

many occasions, the zine—in editorials, articles, or exposure to other scenes—powered the idea that Puerto Rican punks should form their own bands, make their own records, and publish their own zines. In one particular example, the importance of subterranean economies and their connection to DIY philosophy is emphasized:

Subterranean economies are composed of many people. They are the [female] neighbors who sell *limbers*, *pasteles* [typical foods] or crafts. They are also those who mow lawns or paint houses. It's all about self-sufficiency. In the case of the punk scene, you can make your own T-shirts, publish/distribute zines, music, etc. You wouldn't be able to sustain yourself with what you get, but you would rescue the scene from its inertia... (*Zine Vergüenza* #7, 1998)

In addition to the dissemination of a DIY philosophy, one of the purposes of the zine was to “educate” its readers about civil rights, social resistance, and politics. Every issue of the zine included articles that discussed different critical topics, such as government corruption (*Zine Vergüenza* #2), xenophobia (*Zine Vergüenza* #7), famine in Africa (*Zine Vergüenza* #8), feminism, racism (*Zine Vergüenza* #9), homophobia (*Zine Vergüenza* #11), and religious manipulation (*Zine Vergüenza* #12), among other examples.

Another important dimension was its coverage of the scene in the form of interviews of local bands and record and show reviews. In this way, *Zine Vergüenza* served as a place of cultural convergence where bands could see themselves represented and where people could learn about the cultural commodities being produced. People could also learn about the latest venues hosting punk shows or when shows would take place. The zine served to construct the notion that all these interests, ideas, politics, music, and gatherings converged in one community: the Puerto Rican punk scene. Further, *Zine Vergüenza* greatly contributed to the legitimization and insertion of the Puerto Rico scene within the international punk community by providing a space for international scenes and labels to advertise, since advertising in the zine was free. For instance, *Zine Vergüenza* advertised and promoted either zines or records from countries such as

Argentina, Brazil, Chile, Costa Rica, Czech Republic, England, Estonia, Finland, France, Germany, Malaysia, Netherlands, Poland, Slovenia, Spain, Uruguay, and Venezuela and from many states including California, Illinois, Colorado, Florida, New York, Oregon, and Utah. In this respect, the production and exchange of commodities results in a social entity that maintains a cultural space, even if that space remains against the margins, helping to construct the idea of a punk scene that was united by common goals and politics.

## **5. High Tech: Digital media**

With the advent of technologies that facilitate the management and reproduction of information—such as computers, word processing software, and personal printers—punk cultural modes of production began to adopt new strategies. This is more evident in the Puerto Rico scene, where the availability of personal computer technologies converged with the consolidation of the scene in the beginning of the 1990s. The zine, which started as a mostly low-tech endeavor, began to adapt to and rely on both low-tech and high-tech tools. Even *Zine Vergüenza* became reliant on computers as tools of production, as exemplified in an editorial: “As you may have noted, I have a computer now. I’m finally a modern girl! Once I have a phone line, I will have e-mail. For the time being, we will continue using the human mail” (*Zine Vergüenza* #8).

Low-tech tools, such as conventional mail correspondence, quickly became cumbersome and impractical. Even those who had been avid users of mail, such as Taína, made the transition to computers with ease. Others, such as José, creator of the label *Discos de Hoy* and guitarist of *Tropiezo*, saw in the computer an opportunity to facilitate matters. José and Wallo (former *Tropiezo* bassist), talked about their experiences with traditional correspondence:

José—When I started with *Tropiezo*, I received letters. Dude, it sucked big time.

I would answer them, but it was a burden to write to someone and send it.

Wallo—Do you remember this interview for a Belgian zine? It was done by hand. The guy sent us letters. I remember answering the questions, all tired. It was like taking a test, man. Just like taking a test! (Interview)

Digital technologies are at the core of the evolution of the Puerto Rican punk scene, and the scene's growth has been largely dependent on computers, the internet, and recording software and interfaces. The computer is a central technology in punk cultural production since it provides the necessary platform for the relatively inexpensive and simple creation of punk commodities. Not surprisingly, the internet is also crucial because its inherent logic—the possibility of network—reverberates in the punk logic. For José, the internet serves as the “nervous system” of his operation, the “brain” being the computer itself:

José—As far as technologies are concerned, the internet is the most valuable. You know, we can communicate five times on the same day. That helps me a lot. I mean, it helps everybody. If my computer breaks down, I'm fucked. I'd need to get me a new one. No computer means I can't record, you can't do anything. Right now, the computer in the studio controls everything: recording, the internet... But that's all basic technology. It's like having a TV or something like that. We're not breaking new ground here. To me, this is all basic. These are technologies that everyone has, “mandatory,” so to speak. It's like the computer, without one you can't do anything. I guess you could, but if you're going to have a job, get your things going, you've got to have a computer. (Interview)

This last excerpt exemplifies an undeniable trend in punk production in that computer technologies now play a central role in the creation, production, distribution, and promotion of punk commodities. Technology, in this respect, has become “naturalized” into the very foundation of punk praxis.

Punk's reliance on technology is predominantly underestimated by punks themselves. In many ways, digital technologies have *blended* with the punk logic to the extent that technologies are rarely questioned as tools of dominant descent. One of the reasons



technologies are accepted by punks with such facility is connected to the fact that digital technologies, for reasons not necessarily consonant with the punk project, seem to be in tune with a DIY ideal. That is, digital technologies of production and reproduction present a formidable opportunity for individuals to exercise creativity and relative self-determination (at least in terms of artistic creation and relative production capabilities). In this sense, digital technologies both interpellate and are interpellated by the values and attributes that constitute punk culture as an ideological formation.

## **6. Myspace and Punk Production**

Myspace, and more increasingly Facebook, have come to be crucial platforms from which punks organize networks of production and distribution. Social networking platforms are key to cultural self production and organization because they enable synergistic social nexus creation through the sharing of information and media through an electronic interface environment that transcends space and time. The result is a “digital snowball,” a social network that self-reproduces itself at an amazing rate.

Even if Myspace’s popularity as a social networking platform continues to dramatically decrease vis-a-vis Facebook (a 2010 social network ad spending outlook by [eMarketer](#) positioned Myspace at \$385 millions worldwide compared to \$490 millions in 2009), I focus on it because, in the case of the Puerto Rican punk scene, it became the first and most pervasive social networking platform from which punks upgraded and expanded their networks of cultural production and exchange. Myspace has been particularly useful for bands (which is confirmed by a study evincing the site’s strong musician presence, see Suhr, 2010) because it is “static” enough for sharing media (contrary to Facebook, which is constantly “feeding in” information from a person’s entire network, which may be difficult to navigate), but also “socially interactive” enough for people to become friends and bring in networks of friends. Each portal is a multimedia event in itself, where one can display photos, music, videos, and blogs. Members of your extended network may post messages for anyone to see, which in itself becomes a form

of advertising for one's page. In addition, Myspace provides free space for streaming music. People can visit your portal, listen to your music, learn the history of your band, and connect you with other bands.

Puerto Rican punks actively use Myspace as a place of convergence, just as parks and plazas used to be places of convergence for the island's early punks. An overwhelming number of Puerto Rican punk bands keep a Myspace portal (increasingly, in conjunction with a Facebook band page), which has incredibly augmented the vitality of the scene by connecting people, bands, and punk projects both locally and internationally.

One of the first bands to use Myspace (and, consequently, diffuse the idea) was *Tropiezo*. When I asked José and Wallo about how they learned about Myspace, they quickly revealed their initial skepticism:

José—[Myspace] has been around for about two years now. When we went on tour last year, we were like “what is this shit?” you know.

Wallo—I remember that a girl I knew created [a portal] and there were photos of her in her bras and I thought “this is really lame.”

José—At first we thought it was something like *Vida Cool* [a Puerto Rican virtual community regarded by punks as a “yuppie” network]. But when we went on [our first US tour], *all* the bands had Myspace. So I decided to create one to see what the deal is. Now I have contact with *everyone*, people from other countries and all. And it's so easy. (Interview)

Myspace quickly became a standard tool for bands. Just as the personal computer “revolutionized” zine making, Myspace has “revolutionized” how bands represent themselves. In José's words, Myspace

Really works for bands. For example, you post the MP3s, four songs of your band. People go [to your page], they listen to them, if they like them, they can download them. They can contact you, they can type in “bands from Puerto Rico” and your [page] will show up. Anyone who *wants* to find you, will *really* be able to find you. There're no more excuses, as far as contacts go. Thousands

and thousands and thousands of bands are in Myspace. When I want to contact a band, I go directly to Myspace. (Interview)

Connectedness is at the core of a DIY punk philosophy and, without networks, punk economics cannot be sustained. Myspace provides an *exponential* mechanism through which networks are not only effectively sustained, but constantly *reproduced*. Furthermore, connections are not only limited to a closed realm, such as “punk,” but to any possibility of *affinity*, be it political, musical, or esthetic. Wallo describes this:

You know, in Myspace, I enter other people’s profiles, I see bands and shit, I click on them, and if I see something I like—it could be hip-hop or whatever—I add them [to my list of friends] and when they add me, I tell them “hey, check these Puerto Rican bands out.” And they *do* write back. Sometimes it’s very random people, like from Wisconsin. (Interview)

Just like the zine created a symbolic and material point of convergence for punk culture, Myspace creates a virtual space of convergence that is more powerful than any of the technologies and artifacts that figured in the early stages of punk. Where zines would describe music through reviews, Myspace permits its users to *experience* music first hand. Where the scene reports would portray “exotic” punk scenes, Myspace provides the space where *entire* scenes become alive. Where punk networks were created and stimulated through zine advertisements, Myspace becomes the ultimate network where virtually any band is immediately accessible.

Punk culture’s use of Myspace is directly connected to the very structure of its platform. First, Myspace provides incredible flexibility of dissemination. Bands can include almost any information they want, from history and lyrics to music and concert footage. Furthermore, it is not complicated to edit and transform its basic HTML encoding in order to customize pages. Second, Myspace seemingly provides a “commercial” media platform for punks without the associated costs. For instance, José talks about how Myspace makes it impractical to create a band website:

Like, right now I don’t want to maintain a Tropiczo.com website. I just create a Myspace page and I post shows, updates, our new songs. A lot of people contact

us there. For contacts is just fucking awesome. It serves the basic function of what a band website should be: post music, announce shows, and have a contact list. That's it. Why would you want to create a band website? I mean, the people who made possible our Florida tour I met through Myspace. (Interview)

Yet, aspects that are not apparent in these accounts have to do with the implementation, dissemination, and effects related to the political economy of the media industries that make possible counter-corporate media production such as punk. Although seemingly effaced from their cultural production, they are still a very real aspect of such production and thus must be considered within a complex analysis of oppositional media production in capitalism.

## **7. Contextualizing New Media: The political economy of Myspace**

It cannot be overlooked that the political character of new media technologies has to be examined against the commercial mechanisms from which they emerge. Marshall (2004) points out to the economic determinations of new media as he foregrounds that the deployment of new media technologies, especially the internet, was not “entirely modalized around simple and utopian ideals of public good” (p.36), but around an infrastructure of mobility of capital that secures global capitalism. Thus, “we would call the internet a DIY media form in its invocation to users to fabricate their media practices; but it is important to understand that this development of a DIY media form is not freed from the operations of corporations” (p. 47). Even Jones (2000) understands that “capitalization and market power of major labels may significantly affect the degree of disintermediation and its consequences” (p. 219).

It is clear that punks are lured into Myspace because it provides a free way of consolidating and expanding the punk media network. This capability is precisely what has drawn millions of users to Myspace. In 2005 Myspace was drawing more than 150,000 users a day, making the website a gold mine for advertising investment (Rosenbush, 2005). Convinced by the potential of Myspace as a new trend in media, in the summer of 2005 Rupert Murdoch acquired Myspace for \$580 million. Since then,

NewsCorp has been working hard figuring out the marketing promise of Myspace given its yet potentially lucrative configuration.

In this sense, Myspace presents both a problem and an opportunity for the creation of a new media platform that capitalizes on the commodification of lifestyles. On the one hand, Myspace's success is founded on the principle that users have freedom to create, navigate, and promote themselves as *individuals*. Because there is no way to predict the different aesthetics, consumption habits, and desires of individuals, and because there is no way of controlling how individuals interact with each other, Myspace presents a dilemma for traditional marketing strategies that rely on consumer information and patterns in order to promote products. As Reiss (2006) writes in *Wired*:

The most obvious problem is that millions of profiles that are Myspace's main real estate violate just about every rule in the marketing handbook. The site's great strength—users' freedom to design their pages any way they like—is an advertiser's nightmare of scrolling, blinking, browser-crashing chaos. (p. 146)

As of today, “most mainstream marketing on Myspace has been kept to more structured areas of the site, such as the books, comedy, film, and games sections rather than on individual profile pages” (O'Malley, 2006, p. 4). However, the idea behind NewsCorp is to transform Myspace's marketing problems into a new commercial arena where users, not as consumers but as participants, *become* the source and conduit of marketing. Companies such as Myspace present advertisers with the golden opportunity to learn first-hand about new consumption trends by specifically looking at what people are doing. For instance, companies may learn how products are being put to use by people, thus enabling an avenue of marketing and capitalization. The capitalization of directly looking into people's “media lives” has enabled Myspace to create Myspace Records, which seeks to find and sign artists with the potential of becoming stars (Oser & Klaassen, 2005, p. 3). And yet another strategy that has been at work involves exploiting the potential of “immersive ad campaigns,” or “commercial Myspace profiles that publicize movies, albums, and consumer products” (Reiss, 2006, p. 147). Using this strategy, companies are able to blend into the Myspace community, spreading onto people's profiles. The type of media strategy sought by social media companies such as

Myspace could become to the commercialization of the internet what reality shows became to television: low-cost, high-profit platforms.

The political economy of Myspace demonstrates the multidimensional role that new media technologies play in DIY production. Even as technologies have become a necessary aspect of punk cultural production, they also belong to a broader arena through which capitalism thrives and is solidified into our lived realities. As Castells (2007) recognizes,

NewsCorp's strategy includes an understanding of the new rules of the game. The key to successfully integrating MySpace into the overall NewsCorp strategy, is to allow MySpace communities to remain free, and set up their own rules, indeed inventing new forms of expression and communication. (p. 252)

Digital technologies, be it for recording, networking, or reproduction, are primarily developed for their *consumption*, not *use*, value, but use value more and more determines the parameters of profit in networked markets. A political economy of new media, as exemplified by Myspace, points to the fact that network counter-power is, in effect, immersed in the very process of its incorporation into the logic of network society capitalism.

If one looks at some Puerto Rican bands' pages—*Tropiezo*, *Cojoba*, *Hay Silencio*—they feature banner advertisements of Verizon, T-Mobile, and Microsoft. In terms of a politics of communication, the articulations that punks make among DIY philosophy, media technologies, punk commodities, and politics seem problematic, contradictory, and perhaps potentially detrimental to a punk political vision. In this respect, punk media infrastructures are always caught within the contradiction of relying on the very system counter to which their production and exchange networks are built, an inherent tension of deploying opposition in capitalism.

## **8. Conclusion: Foregrounding the Complexity of Counter-power Media Production**

As exemplified by the research presented here, the case of punk production networks offers many points of examination that may expand our understanding of the complex role of networks and new media in social practices that seek to counter dominant forms of media production, especially those that are deployed from capitalist societies. Castells has recently offered some perspectives on networks and media counter-power. One of his arguments is that the rise of what he calls “mass self-communication,” which can be thought of as an integral feature of the current network society, may exert “counter-power, the deliberate attempt to change power relationships, enacted by reprogramming networks around alternative interests and values, and/or disrupting the dominant switches while switching networks of resistance and social change” (Castells, 2009, p. 421). However, he also understands that “corporate media are fully present in the horizontal networks of communication, and that grassroots activists and social movements are not alone in the effective use of these networks to communicate among themselves and with society” (Castells, 2007, p. 257). In this respect, we still need to further evaluate the impact of some resistive social networks *within* capitalism as counter-power and examine the historical implications and effects of the spectrum of connections that make possible their power to self-communicate.

The concept of articulation becomes useful for an analysis of the historical complexity of network connections. I understand articulation as the means through which a dominant bloc fixes dominant ideological significations, which is not exclusive to a dominant bloc nor are its resulting significations absolute. Articulations have to be “positively sustained by specific processes” (Hall, 1991, p. 112) in order to maintain their representational status, and the fact that they have to be “sustained” opens the possibility of what Hall calls “re-articulations.” Through the articulation of technological tools—digital recording interfaces, Myspace, the internet—Puerto Rican punks are able to sustain a media infrastructure that works as part of a discursively connected network of scenes and centers of cultural production. People are at the core of new media articulations. As much as new media communication is enabled by a

power assemblage of economic and political relations, it is also the product of the ideological interpellations, experiences, identifications, historical positions, and creativity of technology users and their appropriations of technology. In the case of Puerto Rico, punks have articulated the potential of technologies to the needs of their project of cultural production, resulting in the optimization of resources and structural possibilities. Digital recording interfaces and software, the computer, the internet, and Myspace are strategically articulated to form an infrastructural base through which Puerto Rican punks are able to sustain their media project.

At the same time, by articulating technologies, punks also articulate aspects of the logic of exchange and production intrinsic to the capitalist system, such as mass production, economic expansion, and exploitation of labor and resources as media technologies do not emerge from a void, but from their need of reproducing, and being reproduced within, the capitalist logic. New media technologies such as Myspace are not neutral tools that are extrinsic to historical processes, and this non-neutrality *has* to be considered within any mapping of counter-power. If one of the major corporate goals of Myspace is to burrow into people's digital niches by exploiting the commercialization of lifestyles more effectively, to what extent are DIY politics of production undermined, trivialized, corporatized? Furthermore, to what extent are instances of counter-power self-communication beneficial to the corporate taming of horizontal networks of information and cultural production?

To various degrees, punks attempt to "mask" the mark of capitalism in their practices by the re-articulation of capitalistic significations that permeate the punk logic. This is what Thompson (2004) calls the "shame of exchangeability," punks' insistence on "detaching" their production practices from corporate conduits. Whereas the music industries turn musical products into glamorized commodities, punks make an effort to de-glamorize music by taking production into their own hands; whereas capitalism prescribes a formula for success based on sales and economic growth, punks devalue their commodities and favor micro-production over expansion. However, punks' often problematic "masking" of capitalism creates an important discursive tension as punks are unable to disentangle from their insertion into and reliance on capitalism as a



structural system. The punk discourse, codified as a vehement rejection to capitalism, is caught between the paradox of rejecting a system and fundamentally relying on that very system.

The paradox is crucial to an understanding of networked cultural production. As Ericksson (2005) asserts, “network is a place within which boundaries are drawn, but at the same time the network itself is constantly brought about as a result of this boundary-drawing” (p. 321). Uses of technology for self mass-communication may represent a re-articulation and re-territorialization of the mediascape, as uses of technology do have social effects. Nonetheless, these effects are always caught within a structurally-pervasive power logic with the sustained capability to build the networks of its reproduction upon networks of production and exchange. This inherent tension coexists with the act of rearticulation as punks attempt to create a micro-mediascape from which to signify. Punks’ engagement with new media foregrounds an avenue of social mobility as it also makes possible the reterritorialization of cultural spaces that tend to give primacy to tendential modes of production and exchange. However, as I have said elsewhere, “the inherent tension that is observed between [punks’] anti-capitalist logic, their implicit adoption of this logic and the incorporation of some of its tools of cultural production is neither a [political] triumph nor failure, but a *re-articulation*, a *directional possibility* (Author, year, page). It is in this recognition, and its serious evaluation, where the building blocks of an ontology of resistance in late-capitalism lies.

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# Challenges of Popular<sup>1</sup> and Community Communication in Cybercult@: approximation to the proposition of Emergent Local Knowledge Community\*<sub>2</sub>

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## Abstract

Study on the conception of cybercult@, which investigates if it would help community movements in redefining communication practices including the collective empowerment of information, communication – and knowledge – technologies. The objectives are to identify the main theoretical assumptions of cybercult@ in the mark of dynamic restructuring of communication in contemporary society, to place the issue of the presence of popular communication, and alternative community in cyberspace, and to examine whether there is relevance to relate the concepts of cybercult@ and its applicability to the study and practice of this type of communication in Brazil. The approach is based on theoretical and methodological principles of historical and dialectical materialism. The procedures presented in this study are part of the bibliographic and documental research.

**Keywords:** Emergent community. Social communication. Alternative. Community. Cybercult@. Cyberspace.

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<sup>1</sup> 'Popular' in this context is used as derivation of the word 'povo' (people), which in portuguese is used to identify the communication made by segments of the lower classes.

\* Translated by Janaína Krohling Peruzzo

<sup>2</sup> Revised and expanded version of the work presented in the workshop "Comunicación Popular, Comunitaria y Ciudadanía", of the X Congreso Latinoamericano de Investigadores de la Comunicación, conference in Universidad Javeriana, 22 to 25 September 2010, in Bogotá, Colombia.

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## **1. Introduction**

In the context of contemporary society, characterized as information society, there is a whole social dynamic in pursuit of autonomous appropriation of digital technologies and Computer Mediated Communication (CMC). But despite the progressive increase of internet access, considerable population contingents in Latin America are still on the sidelines of the benefits of this communication environment. However, somehow, even people with low purchasing power and their social organizations, which are in peripheral areas of cities or in the countryside, seek to insert themselves in this environment of change of communicative structures and of social relations. Such inclusion occurs as part of a social dynamic where the concrete world and cyberspace are not detached. In other words, there is a process of individual and community inclusion in the sphere of internet that does not preclude the continuity of physical engagement and action, in their various forms of organization, such as struggles for rights of social, communicative, cultural, or political citizenship nature.

At this level we study the possible intersections between cybercultur@<sup>3</sup> and popular, alternative and community communication. We investigate whether the theoretical proposal, especially of *Emerging Community of Local Knowledge* (ECLK), can help community movements in the redefinition of communication practices, including the collective empowerment<sup>4</sup> of Information and Communication Technologies (ICT)<sup>5</sup> in order to effectively achieve these dimensions, including Knowledge. The social cost of not collective empowering the ICT for the purpose of implementing durable alternative

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<sup>3</sup> The use of the symbol '@' indicates a differentiation that we will later discuss, with the idea of a feedback spiral, in line with the Laboratorio de Investigación y Desarrollo en Comunicación Compleja (Labcomplex).

<sup>4</sup> "Empowerment" as being capable of using ICT (control power and direction) by popular groups and communities.

<sup>5</sup> In portuguese *Tecnologias de Informação e Comunicação*, TICC, with a double 'C' to indicate the idea of existing knowledge in the whole technological process.

communication community contributes to the delay of the transformation of the local reality.

We begin with the question of whether it is relevant to interrelate popular and community communication to the theoretical and practical proposal of cybercultur@. The hypothesis is that popular and community communication could be reinvigorated by undertaking cybercultur@ as praxis (theory and practice), as it would help to configure self-managed organizational processes of high connectivity towards building a new society.

In broad terms, our objective is to identify the main theoretical assumptions of cybercultur@<sup>6</sup> – within the framework of the dynamics of cultural and communicational restructuring in contemporary society, and their possible intersections with the community communication. More specifically, we seek: a) to introduce the theme of popular, alternative and community communication of collective character, in order to explore their presence in cyberspace, and b) to analyze the relevance in relating the concepts of cybercultur@ and its applicability to the study and practice of popular, community and alternative communication.

From a methodological perspective, this text refers to part of a broader research consisting of theoretical study and field work developed along with the *Laboratorio de Investigación y Desarrollo en Comunicación Compleja (LabCOMplex)*, coordinated by Jorge A. González, which involved field research through participatory investigation in Emerging Community of Knowledge in Charcas, in the Altiplano Potosino, San Louis Potosi, Mexico. The technical procedures relating to the section presented in this paper are those of bibliographical and documental research. The approach is based on historical and dialectical materialism (Minayo, 2007), as it seeks to understand the object in its entirety and provisory character.

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<sup>6</sup> As indicated by Labcomplex (in CIBERCULTUR@..., n.d.). Refer to <http://labcomplex.ceiich.unam.mx>.

## **2. Brief conceptual aspects and signs of popular, community and alternative communication today**

Popular, community and alternative communication generates cooperative processes of organization and is structured in order to transmit info-communicative content treated differently from those that circulate in the traditional mass media, although it is not "alternative" in the sense that it does not replace or dismiss access to conventional means of communication<sup>7</sup>. In other words, as communication of the organized sectors of the subaltern classes (as explained in Peruzzo, 2009:132), it will guide itself by a proposition different from the one normally present in the large private (commercial based) and in the public (bound to governments) media. It has a civil public character, thus non-governmental and non-business. Their specificities are perceived through multiple factors such as the political and ideological platform (critical and purposeful); the modes of organization (grassroots, collective, and sometimes taking place in private spaces, such as in militants' homes); the link with the civilian non-profit organizations; the production strategies /action (collaborative, local based, active participation and freedom of expression, used for mobilization); and through its editorial proposal (regarding the focus given to the content and to the issues addressed).

Authors Isabel Gatti and Raúl Bermúdez (2010:18-19), have also observed similar aspects in their analysis of the situation of community communication in Argentina:

the construction of the message is not performed by an individual practitioner – the social communicator that responds to the professional stereotype [...]. It is a collective and participatory process that adopts a viewpoint set and linked to specific interests and concrete popular projects with no pretense of objectivity such as predicated by the large multimedia in order to make opaque the real enunciators of the message, also linked to concrete interests, but not popular ones.

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<sup>7</sup>They move in a particular universe due to the scope of information and coverage range and extent, which characterize the practice.



The effectiveness of such communicational proposition carried out by segments of the lower classes refers to a peculiar situation of Latin American history, which, as shown by Gatti and Bermúdez (2010:17-18), is marked by agreements and disagreements among various groups of antagonistic stakeholders, "during the time of colonization, migrations and beyond, with the imposition of the modern project, which left a legacy of areas of uneven development, large masses of the population in extreme poverty". It is in this context that community social projects develop aimed at ensuring human rights, in the core of which communication is one of the components.

At the end of the 1970s, during the heyday of its resurgence in the context of distension of the military dictatorship in Brazil and the following years, this other communication "represented a cry which had been suppressed, of accusations and demands for change, externalizing mostly in small newspapers, newsletters, speakers, theater, brochures, flyers, videos, audio-visual, banners, billboards, posters, booklets, etc" (Peruzzo, 2004:115), including, therefore, artisanal, as well as face to face and group communication. The dimension of complaint and demand still remains in recent settings, although has lost the character of defiance against the State of the 1980s. Another interesting nuance is that it has incorporated broadcasting technologies (radio, television) and digital (internet) according to the circumstances of each historical time.

There are many the precursors of the study of this type of communication, which had in Paulo Freire an inspiring conceptual foundation, especially in regard to the dialogicity and democracy from the educational process. Fernando Reyes Matta (as cited in Beltrán, 1981:30) developed a macro-operating model of participatory communication. Luis Ramiro Beltrán (1981) developed concepts of horizontal communication emphasizing its multiple purposes: "access, dialogue and participation." Other thinkers like Mario Kaplún, Juan Diaz Bordenave, Gilberto Gimenez, Miguel Azcueta, Max Simpson Grinberg, Daniel Prieto Castillo, Jose Martinez Terrero, Jesús Galindo

Caceres, among many others, also contributed theoretically to the understanding and practice of popular alternative and community communication in Latin America.

Among the exponents of this communicational perspective mentioned above, Mario Kaplún (1998:17) conceived it as an "educational communication [...] [democratically produced] 'in order for the receivers to become aware of his/her reality', or 'to prompt a reflection', or 'to generate a discussion'. "He adds: "we shall conceive the communication media we produce as instruments for popular education as conceptualizers of an educational transformation process."

With the above citation we want to emphasize the procedural nature of such communication practices, that is, it is not just about creating media or communication channels, but about inserting them as facilitators of processes of social mobilization, reason for which their original expressions, as well as several current cases, develop in the context of social movements. An example:

Member of *Rede de Mulheres no Rádio* (Women in Radio Network), the Women's Center of Cabo (CMC) understood, even in 1997, that the feminist movement needed to take ownership of the radio vehicle as immediate media towards establishing a direct communication with in order to the deconstruction of machismo and of patriarchy in the Zona da Mata Sul [state of Pernambuco, northeastern Brazil]. The organization needed to establish a democratic relationship with the population of a geographic area where, according to the Brazilian Institute of Geography and Statistics (IBGE), almost 60% of the women population were illiterate in 1995 (Veloso, Farias, 2011:6).

According to Gatti and Bermúdez (2010:18), community communication "is directed towards an educative function and awareness of their own rights and needs, with the consequent enhancement of territorial identities", and we would add, of historical and cultural identities as well.

This 'other' communication has received several denominations: popular, participatory, horizontal, alternative, dialogical, radical, to refer to the communicative process carried out by grassroots social movements and non-profit organizations of civil society.

Therefore, collective actors come together to incite social mobilization and carry out concrete actions aimed at improving the living conditions of impoverished populations and raising the level of sociopolitical consciousness. In Brazil, in recent years, the terms "community" and "alternative" have been gaining predominance possibly as a reflection of the social practices increasingly present in society.

Given recent configurations, the popular, the community and the alternative communication may be understood in their singularities, that is, it is feasible to treat them in reference to more specific praxis, although in many respects there are interfaces that do not recommend fixed visions or rigid separations between them. In another text (Peruzzo, 2009) we deal with the specificities of the terms. In this article we address them through a vision of conjunction, since we are interested in discussing their possible intersections with the theme of cybercultur@.

In summary, popular, community and alternative communication's main features are the following: the protagonists are the people (hence the term 'popular'), but only those related to social movements and organizations; it is based on active and open participation; it is not-for-profit; the content is in tune with local realities or with the community of interest that it is bound to; it establishes shared and non-hierarchical processes of production and broadcasting of messages; it is based on collective ownership (and when private, it is put to public service); and it happens in different forms, channels and modes of communication, but changes itself throughout history.

Popular, community and alternative communication in Latin America represents a counter-communication, or "other" communication arranged in the context of social movements, "communities"<sup>8</sup> and other social groups closely connected to subaltern classes in order to exercise freedom of expression and offer content within their perception. At the same time, it serves as a tool for awareness and mobilization aimed at grass roots organization and social transformation starting always from the mission to

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<sup>8</sup> The quotation marks indicate the existence of contradictory concepts and perceptions about community. However, in this text the term is used interchangeably.

overcome deficiencies and immediate needs of population segments to which they are linked.

In recent years, in Brazil, concurrent to a continuity of traditional communication experiences of organized segments of the lower classes, there has been an increase of new channels, formats and organizations of communication, largely intermediated by the computer-mediated communication (CMC), and has gained more importance with Web 2.0 and Web 3.0, since they facilitate the role of the user as the sender. Despite the disparity in access to the blessings of technology by the population, ICT help to establish a historical moment that enhances two-way and of multiple open sources communication that favor the growing resumption of community initiatives and alternative communication.

In this scenario, community and alternative communication happens through group participation and physical presence, as well through instruments of communication aimed at specific audiences, such as banners, posters, speakers, pamphlets, cordel<sup>9</sup> poetry, popular theater, video, newspapers, magazines etc. However, it also adopts more advanced technologies such as radio and television and later on the digital technologies. In the universe of the internet, it manifests through virtual pages, virtual communities and interactive platforms, as well as through experiences of web TV, community web radio, blogs, photo logs, video logs, twitter, podcasts, among others. Then again, as already stated, in this paper we are not dealing with the creation of channels of communication per se, or those perpetrated by individuals, but those within the dynamics of mobilization and organization of progressive subordinate groups, as our interest is to understand the collective meanings constituted in this context.

As an illustration, we refer to some collective experiences of alternative communication, such as *Indymedia*, which is in 200 cities around the world<sup>10</sup> and in Brazil is called *Centro de Mídia Independente (CMI)*<sup>11</sup>, *Overmundo*<sup>12</sup> (Brazilian channel for the production of cultural communities), the *Coletivo de Notícias del Sur*

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<sup>9</sup> cordel is name given to a type of regional poetry in the universe of folk communication

<sup>10</sup> See Moraes (2008).

<sup>11</sup> <http://www.indymedia.org> or [www.cmiBrazil.org.br](http://www.cmiBrazil.org.br)

<sup>12</sup> <http://www.overmundo.org.br>

(CoNoSur)<sup>13</sup>, Centre des Medias Alternatifs du Québec (Cmaq)<sup>14</sup>, and Nodo50<sup>15</sup> of Spain. They all operate with counter-information in an open publication system and other forms of collaborative communication platforms. In this line of alternative communication, there are also alternative news agencies, such as *Agência de Informação Frei Tito para América Latina* (ADITAL)<sup>16</sup>, *Agência Carta Maior*<sup>17</sup>, *Informação Social*<sup>18</sup> – news agency that emphasizes the dissemination of themes related to human rights in the Eastern Amazon region of Brazil (Tocantins, Maranhão, Pará and Amapá), and *Agencia de Notícias Red-Acción* (ANRed)<sup>19</sup>, all disseminating information through a progressive perspective on issues seldom addressed by the mainstream media, or misrepresented and omitted by them. There is an increase in the number of Media and Communication observatories, which critically monitor the commercial media, as well as analyze events related to communication and media systems. Among the dozens of existing experiences, we highlight three, at different levels: *Observatório Iberoamericano de la Libertad de Prensa* (Infoamérica)<sup>20</sup>, based at the University of Malaga, Spain and in 19 countries, *Observatório do Direito à Comunicação*, based in São Paulo, Brazil and *Observatório da Mídia Regional – direitos humanos, políticas e sistemas* at the Federal University of Espírito Santo, Vitória-ES (Brazil).

Among the collaborative communication spaces created in cyberspace, some are closely connected to social movements and communities, as others belong to other collective civic networks<sup>21</sup>. In addition to platforms and channels such as those mentioned, there are also other forms of social networks<sup>22</sup> that favor the formation of virtual communities of shared interest, or the communities of choice, as described by Goldsmith (1999)<sup>23</sup>.

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<sup>13</sup> <http://ar.geocities.com/agenciaconosur>

<sup>14</sup> <http://cmaq.net>

<sup>15</sup> <http://www.nodo50.org>

<sup>16</sup> [www.adital.org.br](http://www.adital.org.br)

<sup>17</sup> [www.cartamaior.com.br](http://www.cartamaior.com.br)

<sup>18</sup> [www.informacaosocial.com](http://www.informacaosocial.com)

<sup>19</sup> [www.anred.org](http://www.anred.org)

<sup>20</sup> [http://www.infoamerica.org/libex/libex\\_7\\_d\\_9.htm](http://www.infoamerica.org/libex/libex_7_d_9.htm)

<sup>21</sup> See León, Burch and Tamayo (2001), Finkelievich (2000) and González (2008, 2009).

<sup>22</sup> See Recuero (2009).

<sup>23</sup> See Peruzzo and Berti (2010).

We highlight that the new manifestations of alternative and community communication, as they incorporate digital and interactive media and constitute themselves primarily as collective forms of organization, engender not only differentiated content from new perspectives in view of alienation, but also new procedures for the construction and dissemination of messages, the socialization of expertise (and others), the creation of shared codes of conduct and the establishment of new social relations of production<sup>24</sup>, which put in suspension traditional hierarchy and bureaucracy, the meanings of private property and of the work force as merchandise, given that, among other aspects, it entails volunteer work (Peruzzo, 2009:143).

The potentials enabled by participatory/interactive digital technologies and computer mediated communication with regard to the creation of autonomous and communitarian instruments to produce, manage, distribute and receive content are indisputable, though they are immersed in a set of contradictions that inhibit or hinder the advancement of communication of the lower classes. These contradictions arise from the structural conditions of society that generate inequalities in the empowerment of technology, antagonisms derived from differences in educational levels, cultural and ideological values expressed in social practices and languages, as well as in local singularities that do not always point to the communicative need via digital platforms. The condition of concrete existence helps to configure specific forms of appropriation by the population and social groups, the ICT. Ultimately, there is an unevenness of access and utilization of the possibilities that the network of networks offers, besides limited effectiveness of public programs that try to solve this problem, both in Brazil and in Latin America as a whole, a theme that will be addressed later in the midst of the discussion of cybercultur@.

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<sup>24</sup> However, these dimensions were already part of popular and alternative communication of other historic periods. The new which we refer to is relative to each historical period.

### **3. Cyberspace as a new space for community and alternative communication**

An almost consensual vision has been reproduced over time, which can be seen in the citations below, written at different times, and which link cyberspace as virtual or immaterial space created by electronic means and dependent on computers:

According to Heim (1993:78-79)<sup>25</sup>, for instance, cyberspace

suggests a computerized dimension where we move information about where we find our way around data. Cyberspace renders a represented or artificial world, a world made up of the information that our systems produce and that we feed back into the system. Just as a chessboard sets up checkered game space of its own world and knights, pawns and bishops, so too the computer interface holds its field of moves, file hierarchy or files, places to go, and relative distances between points of interest.

According to Lemos (2008:128), cyberspace can be understood in light of two perspectives: “as a place we find ourselves when we enter a simulated environment (virtual reality), and as a conjunction of computer networks, integrated or not, in the whole planet, the internet”.

However, cyberspace points to a complex phenomenon which this type of technician approach cannot explain.

Departing from the meanings of the word cyberspace as derivative of words cybernetics and space, since Norbert Wiener (1948<sup>26</sup>), whose studies linked to military programs in the context of the Cold War, the concept of cybernetics (general systems theory) was established. The word cybernetics comes from the Greek *Kybernetes* (Cybernetics) and means pilot, navigator, controller, or the possibility of control and communication, both

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<sup>25</sup> Citations by foreign authors were published in English, Portuguese and Spanish and translated by the author.

<sup>26</sup> In: “Cybernetics, or control and communication in the animal and machine”.

of the machine (engineering) living organisms and language (Miège, 2000; Gómez Cruz, 2007, González, 2008). Therefore, an important element is added, the idea of direction, the ability to direct action, which is not limited only to the technical circuit.

The reintroduction into the academic language of the prefix “cyber” (kyber, cyber) appears to indicate (and in some way reduces itself to) the use of “machines of control” (i.e., computers) (Gómez Cruz, 2007:28). In the end, as the author describes (Gómez Cruz, 2007:28), “in popular language, it began to be applied to everything that has as the center the use of computers, especially those connected to the internet” and new terms emerge, such as cyberspace, cybersociety, cybercity, cyberlaundry, cybercafé, cyberculture.

Now space, according to Wertheim (as cited in Gómez Cruz, 2007:29), until the 14<sup>th</sup> or 15<sup>th</sup> century, in the medieval cosmic view, there was a "real" and a "divine" space. From the 18<sup>th</sup> century, with the shift that made science the prevailing explanation of the world, a more rationalistic and mechanist vision of space came about. In this perspective, the medieval duality was lost in favor of a space that is “physical, total and absolute”. However, the author points out that cyberspace, not only in its narrative but in the way it "manifests", opens the possibility of a "space" that is not Cartesian: by interacting in cyberspace, my location cannot be established merely by coordinates of physical space.

As Wertheim suitably notes (as cited in Gomez Cruz, 2007:30), cyberspace retrieves the cosmic view of "a dual space where physical space is not the only possible space". But, from our point of view, it also constitutes a harmonious cosmos in itself, although, if we think beyond the "machines of control"<sup>27</sup>, it does not cease to interconnect with the physical world.

Cosmos, from the Greek language, means harmony, order, beauty. Its antonym is chaos<sup>28</sup>, also from Greek. This world constituted by cyberspace suggests symmetry, a

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<sup>27</sup> As originally defined by Norbert Wiener.

<sup>28</sup> In fact, chaos, or the system of disorder, is how Lévy (1999:111) sees the cyberespace, with which we disagree.



combination and balance of traits in formats of networks<sup>29</sup> that conform themselves in mechanisms identified in terms of technological determinism, but go beyond them. It is perhaps worth recalling, with Jesús Galindo (1998:4), that “society and cyberspace is a new ecological form/way in human development. [...] Something that calls for new types of social relations, the construction of a new type of civilization”. Therefore, cyberspace represents a phenomenon of the last decades. According to Heim (1993:84), “something is a phenomenon when captures and maintains the attention of civilization. Only then can our common language articulate the presence of the thing so that it can appear on its ‘static’[sic] identity in the course of history”. This is how cyberspace introduces itself as a nebulous and slippery phenomenon. It attracts distinct societal movements and, at the same time, is continuously renewed.

It is not the intention of this text to go into detail in the discussion of cyberspace, nor to fall into any of the theoretical strands prevalent among the Promethean<sup>30</sup> and Faustian<sup>31</sup>, as in Rüdiger’s view (2007:14;184), which, as thinkers of technique, oscillate, respectively, in visions of cyberspace as a cultural pessimism or a societal optimism. For the Promethean, technique would bring an emancipatory and beneficial quality, as it represents the greatest good of the human being, progress or an opportunity to advance in development. On the other hand, for the Faustian, technique is seen as a force of human beings, but able to adopt an autonomous development and destroy it.

We are interested in discussing the possible interconnections between the organized segments of lower classes, based on the Brazilian experience, and cybercultur@<sup>32</sup>, as identified with @, which in essence does not address the digital technologies or computer mediated communication, but is characterized by a process implicated in the development of cultures of information, communication and knowledge.

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<sup>29</sup> Ver Recuero (2009).

<sup>30</sup> Prometheus, the figure of Greek mythology. For the Promethean, technique is, ultimately, the greater good of mankind.

<sup>31</sup> From the legend of Dr. Faustus (16<sup>th</sup> century), this view of technology as a force created by the human, from whom it tends to be emancipated, and then assume an autonomous development, leading to its destruction (Rüdiger, 2007, p.184).

<sup>32</sup> See [www.labcomplex.net](http://www.labcomplex.net)

Nonetheless, we cannot disregard the aspects of centrality of information and communication technologies in everyday life and society, and we find it necessary to address community communication today also from the standpoint of cyberspace. Cyberspace is understood as a complex phenomenon which requires interpretations through the perspective of the cosmic vision that it encompasses, through immateriality as its processual essence, but which interconnects to the physical space through people and the organizations that set it in motion, the consequences in real life, the historical processes that do not dissociate the material world and cyberspace from real life that happens beyond infoways.

#### **4. Cybercultur@ and the emerging communities of knowledge**

Much has been discussed about the digital divide to describe the exclusion of the impoverished from computer access and internet in a simultaneous process of insertion by the dominant sectors in this communicational environment and their fascination towards the capabilities of interaction and circulation of content that it offers. However, we must pay attention to the fact that the economic-financial dimension does not explain the whole issue of digital divide. There are also educational, cultural and political reasons, which can establish conditions of inaccessibility or even the quality of the level of access achieved by segments of the population, according to each situation. Also, it is important to highlight that it is not only access to the internet which ensures the inclusion of people as a political subject of society, as we shall see below.

In short, considering the importance of ICT today,

Not having access to the main source of mediation of social relations of the 21<sup>st</sup> century aggravates the social exclusion of all sectors that are “outside”, or on the other side of this ‘gap’. For this reason, it is understood that countries with an abundance of ‘poor’ populations must have to increase their contact with the ICT, qualified as a privileged instrument for access to information and organized knowledge, and created for all, by the others who are on the other side of the ‘gap’ ”(González, 2008:123).

In this context, at first, studies and public policy around the subject consider the distortions in the appropriation of computer services and of the internet, as well as the incorporation people in those new forms of relationships and social structure, would be resolved by providing skills to operate machinery, programs (software) and the provision of services (tele-centers, computer centers, cyber cafes, public booths, etc.), mostly free. But the debates would soon show that these types of initiatives are not enough, although the need to incorporate such conditions is recognized, because the solutions are always insufficient if the problems of economic contradictions political and cultural relations stemming from the unequal inherent in the capitalist mode of production are not resolved.

According to Paulo Cunha (2003:211),

The so called *detritorialization* produced a new type of communication user, but did not overcome the imbalance caused by the different national dynamics. New hegemonic patterns produce new centralities. However, peripheral groups remain isolated in the fringes of cyberspace. The new purely informational centralities live with the real geopolitical and economic centralities, created in the colonial period and enhanced by industrial revolution. On the one hand, we have economic peripheries, full of underprivileged, marginalized and destitute people, on the other hand we see the *central-peripheries* of digital networks, tribes and their subcultures that are happy to participate in the *non-place* of cyberspace, alienating themselves from the contradictions of the communication industry.

Over time, studies and some public policies incorporated the discourse that is not enough to provide technological support or promote training programs to achieve basic skills, but the improvement of educational quality and the resolution of problems of economic inequalities in order for appropriation to occur, as expected, and to the potential that the network offers. However, in practice, the distortions of the access and use – and / or non-use – of the technological supports continue to develop as political dilemmas.

To address this type of problem, in the context of Mexico, Jorge A. González (2008:127) believes it is necessary to review the theoretical instruments and the practical

strategy to enable a different form of appropriation of the internet and of the existing digital technologies, so that they are used not only as access, but as platforms for generating information, communication and especially local knowledge.

The author works with a new concept of *cybercultur@*, identified by the symbol @, which differs from approaches predominantly used by the academy, and which define it, similarly to Lemos (2003:12)<sup>33</sup>, as a “socio-cultural form that emerges from the symbiotic relationship between society, culture and new technologies of micro-electronics basis”. González (2008:127) sees *cybercultur@* from the Greek prefix Kyber (*ciber*), because

Developing *cybercultur@* implies to generate, augment, improve, enhance and share the abilities to lead, direct and ‘steer’ social relations, in an exercise of self management which collective, horizontal and participatory. [...] [Culture is used in its original sense, as] ‘cultivation, care, attention and development’. The ability to self-lead and to address others for more intelligent solutions for the enormous challenges facing the 21<sup>st</sup> century, can be learned, can be shared, can be cultivated with others and for others. [And I use] the symbol @, [...] for its resemblance to a spiral graphic, [...] to represent a positive feedback loop, an open and adaptable process that generates an emerging response that arises from the density of relations of the system and cannot be reduced to the sum of its components.

Developing *cybercultur@* means, therefore, a process that “collectively redraws, and from bottom to top, a different attitude” toward the world, and at the same time, learns a series of “transferable skills that allow us to operate well the technologies within our grasp in light of the information needs in order to generate knowledge and to coordinate communication actions that allow us to break the vicious circle of technological dependence” (González, n.d.:8).

The concepts of *cybercultur@* are developed within the *Laboratorio de Investigación y Desarrollo en Comunicación Compleja (Labcomplex)* and are based on Liev Vygotsky (zones of proximal development – ZPD – and distributed intelligence), Gavriel Salomón (distributed cognition), Jean Piaget and Rolando Garcia (construction of knowledge

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<sup>33</sup> See also Lemos (2008), Lévy (1999), Primo (2007), Felice (2008), Rheingold (2002), Heim (1993) and Recuero (2009).

from the perspective of psychogenic epistemology), Carlos Lenkersdorf (the sense of *nosotros*, *nosotrificación*<sup>34</sup>), Pierre Bourdieu (cultural production and class *habitus*), Jesus Galindo (cyberculture), Immanuel Wallerstein and Robert Fossaert (world-system), Enrique Trueba and Concha Delgado (social empowerment), Paulo Freire (dialogical education), Celestin Freinet (development of autonomy and critical thinking), Felix Geyer (sociocibernética and information systems), Alberto M. Cirese (symbolic ecologies) and Antonio Gramsci (hegemony), among others.

The Labcomplex<sup>35</sup> works with cybercultur@ as object of knowledge and as value of social development. From this perspective, the idea of empowerment is preached in order to construct procedures for self-determination and to establish conditions for communities to collectively appropriate information, generate knowledge and become capable to communicate among themselves and with society.

The redesign to which González (n.d.) refers to in the citation above, means the recovery of our settings and historical identities as societies that have undergone processes of domination, and as an element to understand the present and to draw our own paths in the construction of a possible world. It is a process (González, n.d.) based on reflexivity – built and shared – within horizontal networks where intelligence is distributed. Thus, cybercultur@ is more directed at understanding the processes of knowledge construction and social transformation and contributing to become effective, instead of latching onto intricacies of cyberspace.

Enabling cybercultur@ in society, in the words of George A. González (2007:18), requires the development and cultivation of three cognitive cultures, which are essentially human: the culture of information, the culture of knowledge and the culture of communication. A commitment that, collectively held, helps redesign the symbolic ecologies and rebuild relationships that are usually negative if seen from the strict technology perspective.

The culture of knowledge refers to investigation, to questions that can be made of the reality around us and of the world and to responses of knowledge that arise from them.

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<sup>34</sup> *Nosotros/nosotrificación*, meanings and processes referring to the idea 'us' and 'ours'.

<sup>35</sup> [http://computo.ceiich.unam.mx/labcomplex/labcc/c\\_omugf.html](http://computo.ceiich.unam.mx/labcomplex/labcc/c_omugf.html)

However, it is not just formal research, but also of investigative searches that generate findings and share them among the members of the communities.

Paulo Freire (1987:36) once said that knowledge is constituted in man-world relationships, relationships of transformation, and perfected in the critical problematization of these relations.

Knowing is a human activity because we are the only species that develops meta-instruments and meta-languages. Thus, interactions between humans and their reality, from inferences, allow us to establish relationships between different configurations of information, which in turn are the product of constructions and attributes from subject to object. Hence the necessity to generate patterns of behavior conducive to creating knowledge (González, 2007:18, 25).

Knowledge and information "are inseparable. There is no knowledge without information, but there can be a lot of information without knowledge. Information and knowledge enable and give meaning to communication"(González, 2007:25). The culture of information "develops from an approach to the nature of the information – already constituted in observable elements or data in its spatial, static dimension – and as part of the processes 'communication / cognition' in its temporal, dynamic dimension " (Amozurrutia, 2007:131). It is linked to communication processes. Information is particularly important in the organization and construction of memories, in planning systems and its representation in order to enhance reflection and thus improve decision-making (Amozurrutia, 2007:131-132).

It is, therefore, about extrapolating the notion of data and transforming it into information systems. Information is appropriated or generated, understood, assimilated, transformed and systematized, and thus results in knowledge. Collective knowledge, once obtained through encouraged collaboration – in person and at a distance, is processed in view of the zone of proximal development (ZPD)<sup>36</sup>. By establishing

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<sup>36</sup> ZPD, to Vygotsky, refers to mental functions present in the embryonic state, but which advance when there is interaction and involvement of other individuals.

relationships that enforce interconnective dynamics that make visible the ways in which society and social relations are structured, communication and knowledge happen. Communication then enables relationships, the exchange of knowledge, the generation and socialization of knowledge, facilitated by the mechanisms of so-called *distributed intelligence* as an emergent property rather than immanent, according to Vygotsky (1995) and Solomón (2001). The formation of networks and their articulation in emerging communities of local knowledge (ECLK) and investigation (ECI) are interconnected, and comprise the organizational and affective basic "*nosótrica*" ("our") structure which ensures this dynamic.

The culture of communication implies the need for contact between the social actors to compose and rearrange the social world. It signifies the ability to coordinate collective actions and it needs to design and establish three types of conscious modalities of intervention on the social form of organization of the group: evoke differences, change the social order to contemplate the differences, and deal with the adjustment of the organization with the objective of integrating an *intelligent network*, active, effective and affective in the construction of the "*nosótrico*"<sup>37</sup> spirit (González, 2007:18,25; n.d.:6), that is, the 'us', the collective spirit.

Communication culture also implies the development of three conditions needed for communication of physical presence and at a distance, namely: "stimulation, connectivity and consistency. Similarly, it requires the basic attitude of listening to discover, inspire, contemplate and generate a difference" (Maass, 2007: 234).

The stimulus is a central element in the process of knowledge construction (Maass, 2007:240). "It consists of achieving the continuous expansion of the *zone of proximal development* (ZPD) [referring to Vygotsky] of each of the participants, and aims to generalize it to the collective whole" (González, n.d.:4).

Connectivity is understood as "the communication process that begins with stimulation and is followed by a step for structurally connecting conceptual components" (Maass,

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<sup>37</sup> From the Mayan suffix *Tik* which means "nosotros" and was widely applied by Carlos Lenkersdorf (2008) the book "*Los hombres verdaderos*" to explain the *Tojolabal* cosmic vision.

2007:141) and means the "construction, maintenance and expansion of ties between all stimulated elements of a concrete system (González, n.d.:4).

Consistency, however, is relative to the "*nosótrica*" nature of attachment. As it increases, "connectivity enables to start to produce an effect of "*nosotrificación*", the construction of a renewed sense of 'us' which not only manifests itself in the identity of the group, but in the increased capacity to process information, to define the problems and to solve them collectively" (González, n.d.:6), in the Tojolabal perspective (Lenkersdorf, 2008).

Tojolabal is one of the Mayan people of the Upper Chiapas, Mexico, whose way of community living is expressed in their language (Tojolabal), founded in intersubjectivity and participation of each and every one as a subject. As Carlos Lenkersdorf attests in his book "Los hombres verdaderos" (2008:14), among Tojolabal "there are no objects in the context of language or culture."

One of the assumptions on the effectiveness of stimulation, connectivity and consistency in emerging communities is listening, that is, knowing how to listen<sup>38</sup> the other and apprehend the reality and the world. It is also a basic principle of Tojolabal culture. For González (n.d.:8), the first step to becoming a community of investigation or of local knowledge "is to establish the foundations of an individual and collective structure of self-determining listening".

Therefore, *cybercultura@* does not refer to the intercommunicative webs, to sociability in cyberspace or to the skills to skillfully operate machinery and computer programs, other than precisely to fostering and generating three types of *know-how* which lead to a) the way that we learn to ask about the world, to convert practical problems into problems of knowledge, b) the skills and abilities to create, manage and use observable elements and data of our surroundings, c) the ability to coordinate actions with others within the

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<sup>38</sup> Jorge González and Margarita Maass insist in this principle in several passages in their texts about *cybercultura@*.



horizontal organizational structures in which it is possible to distribute intelligence (CYBERCULTUR@..., n.d., online)<sup>39</sup>.

The key issue is to develop knowledge, but knowledge that is contextualized in its environment, in history and in the world, and in a constitutive process of communicational relations, which are dense and able to facilitate the active participation and continuous sharing of learning, the systematization within the group (community or network), between networks and in society. In short, in the words of González (n.d.:7), cybercultur@ is a form of "empowerment that interests three strategic fronts: information, knowledge and the ability to create networks of action to use information and knowledge in specific self-management projects".

This is a matter of

building networks that increase the critical mass of the generators of information and communication, which dignify the assignment to investigate, allow a horizontal relationship between the various social groups, and thus put to our service the digital information technologies, and not contrary (González, 2007:19).

This process does not mean the rejection of technologies. In order to put it into effect, Gonzalez proposes the creation of communities classified as emerging communities of local knowledge and/or of information, and the establishment of networks between them.

The development of these emerging networks of communities seeking to materialize the practical dialogue, community and creative appropriation of this dimension of the technological apparatus subject to the needs of creation and self-generated information and knowledge, but with an entire self-projected structure, open to share and advance on found particularities, in including them in a network of relationships with other forms of knowledge of other communities, displaced in a similar manner and located in a dispersed manner, but who share the same effects of processes on a global scale (González, 2008:131).

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<sup>39</sup> See <http://labcomplex.ceiich.unam.mx/labcomplex02/>

#### **4.1 Brief notes on the concept of emerging community of knowledge**

Emerging Community of Knowledge (ECK) is a “virtual community network activated for the generation of local knowledge through the intensive use of information and communication technologies (ICT) in an environment of distributed intelligence” (Maass, 2007:312)<sup>40</sup>. Each ECK corresponds to a knot (or node) “of a network in permanent construction [...]”(González, Maass, n.d.:7).

The development of emerging communities focuses on facilitating a horizontal dynamic, in proximity to the popular education of Freire and others, allowing them to collectively take ownership of the technology to generate an ability to narrate themselves and to compose into a self-determining 'nosotros' [referring to Lenkersdorf] and not derived from external impositions" (González, 2009:65).

An Emerging Community of Investigation (ECI) composes a collective that is organized with the purpose of conducting research and generating information and knowledge. In it, "each participant is an interconnected node of work to comply with time, an intelligent systemic network". Once activated in cybercult@, the ECI is capable of achieving and cultivating skills pertaining to the processes of information, communication and knowledge (González, n.d.:2-3).

Emerging Communities of Local Knowledge (ECLK) are collectives, or networks, which are organized towards building a process of social development. According to Jorge González (2009:64), they are horizontal networks concerned with developing their 'own information systems and of communication to generate responses of knowledge to concrete and significant problems of their locality [...]: migration, poverty, unemployment, pollution, violence, hunger, environmental degradation, water and many more".

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<sup>40</sup> Digital version available in: [www.labcomplex.net](http://www.labcomplex.net)

Through the application of the principles of cybercultur@, there is an

empowerment process from a new and enhanced collective ability to narrate their past, to redefine their present and to redesign their future and possible worlds through other forms of narration and visualization that emanate from its ability to generate and maintain systems of information and knowledge, first local and subsequently located, when each emerging community becomes a node of a network that is linked to other emerging communities (González, 2009: 65).

Although overlaid by specificities, it is possible to make an analogy between the concept of cybercultur@ and popular social movements in Brazil and other Latin American countries, especially in regard to aspects such as autonomous popular organization and praxis developed from collectivized action in order to solve problems that degrade the living conditions of impoverished populations. Such problems affect large masses of population of the lower classes, but, given that contradictions contain the germ of its own negation, they have also motivated the rise of initiatives to overcome them, whether they are triggered by popular social movements or emerging communities of knowledge and so many other social actors.

#### **4.2 Is it possible to interrelate COM COM to cybercultur@?**

Based on the similarities highlighted above, it is possible to identify intersections between popular and community communication when is developed from the perspective of community organizations and social movements, closely connected to the subaltern classes, and cybercultur@, although there are substantial distinctions between them. They share a common vision of the world as contradictory and oppressive, the political and ideological meanings given to mobilization strategies and social organization, besides aspects related to the approach to overcome practical problems arising from social inequality and to the construction of a just society. The

central point of the common methodological issue concerns the active participation of the citizen in processes that construct self-management practices of social organization and, in the case of community communication, in enabling this communication. This type of participation, in its most advanced form, is based on community self-management in regard to the control power and administration of social processes and communication (cyber).

On the other hand, while cybercultur@ is dedicated to the constitution and organization of emerging communities of knowledge (ECI), popular and community communication of the organized segments of the lower classes results from "spontaneous" organization process and mobilization of sectors of the civil society. If the first envisions a process of social organization from the ECLK and ECI, the later seems to operate from the demands, interests and capacities of mobilization of the civil society, that is, it is circumscribed within the limits of situations, except, of course, the popular movements which are clear on the political option for socialism. While the first addresses the construction of a new project of society, popular and community communication shows a tendency to establish itself more as a process bound to daily struggles for better living conditions and consequently the change in reality, without disregarding that there are social movements and organizations that also have as a strategy the making of another kind of project of society.

This way, it is possible to infer that by incorporating the spirit of cybercultur@, social movements, NGOs and community associations could improve their performance by not concentrating on topical actions. It is important to target a project of society, that is, to discuss the type of society we want to build. Otherwise, despite the good intentions, it is possible incur in processes of non-formal and informal education and of mobilization which in fact facilitate the conformity to the system and to the reproduction of the capitalist society instead of to its transformation. In this condition, how to build the counter-hegemony?

It is essential to add two key differential aspects which favor of cybercultur@. One is in the premise of the importance of forging information systems (organizing, documenting, systematizing information) and enhancing intra and inter-community communication in

order to generate and share knowledge, comprising a first challenge for social movements and community organizations of communication. In the practice of popular social movements, usually a lot of knowledge is generated, many things are accomplished, but little is documented and the knowledge built is hardly ever systematized. Information and knowledge tend to disperse for lack of practice in creating intelligent information systems. The result is that sometimes information is lost as a structured set. What is left is what each one can make use of or what the organization collects and preserves<sup>41</sup>. Knowledge ends up not being socialized to its potential, or even much of what can be gathered remains at the data level, without generating information systems. In the context of cybercultur@ this type of praxis would be forged, after all, such *what to do* is at the heart of its conception.

Another implicit premise in the theoretical conception of cybercultur@ is to forge collective empowerment of ICT. The tactics and strategy around ECK, says González (n.d.:7), lead them to "make theirs the information and communication technologies, not only to access information but to generate their own knowledge". It is still something shy in the universe of the grass roots movements. This is another challenge for community communication organizations and the community movements themselves: to collectively incorporate technologies as theirs and in their full potential in practices related to the processes of consciousness-organization-action toward the fulfillment of citizenship. It's not about the defense or denial of ICT. As constituent and constitutive parts of (and in favor of) society today, there is no other way but to be in and seize them. However, cyberspace does not diminish the importance of physical space or eliminate social manifestations with physical presence.

Finally, the discussion of cybercultur@ is opportune for a change of quality of popular and community communication. In other words, to enable the construction of practices that can help in setting up the cultures mentioned (third challenge) in parallel with the establishment or recovery of close relations between the community and popular

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<sup>41</sup> This is the case of Centro de Pastoral Vergueiro (CPV) and of Centro de Comunicação e Educação Popular de São Miguel (CEMI), both located in São Paulo, Brazil, which were once organizations that served as reference for documentation of work and research, but today some of its creators struggle to preserve files which are unstructured and decomposing.

communication media and collective organizations from which they originated and received political support, a fourth challenge.

## **5. Conclusions**

Given length constraints for this text, there is a lot to be added on the matter discussed herein. But the brief notes above highlight the importance of the subject, both from the standpoint of popular and community communication, as an expression of a communication committed to social transformation, as the innovative qualities that its protagonists are led to incorporate because of changes in the communicational environment enabled by cyberspace. It is a dimension seldom studied in the area of communication, in Brazil, since the predominant investigation of cyberspace focuses on studies about technological determinism, on ramifications of the cultural industry on the internet, and on the presence and meanings of the uses of cyberspace by "small crowds" of internet users, especially from the growing phenomenon of social networking sites such as *Orkut* and *Facebook*, also necessary and important studies.

By inserting itself in cyberspace, popular, community and alternative communication contributes to enabling a transformation of constitutive practices of citizenship. It seems that cultural transformations are taking place as an antithesis of inequitable relations between dominants and subordinates historically constructed at all levels.

The theoretical and methodological perspective of *cybercultur@* developed by Labcomplex<sup>42</sup> seems appropriate for the understanding of the conditions under which the insertion of popular, community and alternative communication in cyberspace and beyond, would represent a qualitative improvement of the status of citizenship. It corresponds to the assumptions of communication in the context of popular and social movements in regard to popular autonomy and protagonism as facilitators of the process of expansion of citizenship in their civil, social and political dimensions, but also

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<sup>42</sup>Laboratorio de Investigación y Desarrollo en Comunicación Compleja.

explicitly communicational and as a right of the fifth generation<sup>43</sup>. At the same time, cybercultura@ advances as it points to paths able to solidify processes of information, knowledge and communication and instigate the creation of a new project of society.

Finally, a question arises: could popular and community communication provide inspiration to cybercultura@? This is a matter to be investigated.

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<sup>43</sup> See Peruzzo (2008).

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# Representations of Poverty and Digital Inclusion: Clashes over alterity in the field of technology and the virtual universe

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## **Abstract**

This article investigates representations concerning access by members of the lower classes to the technological world and the universe of the Internet. The study observes the crossing of communicational processes of these lower classes with middle and upper class actors, with the issue of co-existence and cultural difference taken as a background. Through observational research in the virtual environment, we conducted a survey of manifestations found on sites, forums and blogs where issues such as consumption of products, services and social networks by people at the base of the pyramid and the question of digital inclusion were in some way related. The research results point to a reaffirmation of the logic of “each one in his place”, which winds up questioning the imaginary of the Internet as a democratic space par excellence.

**Keywords:** Digital inclusion, Distinction, Poverty, Brazil.

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## **1. Introduction**

The issue of digital inclusion of lower classes is currently very prominent. During both terms of President Luis Inácio Lula da Silva, the government undertook various efforts in this direction, with initiatives such as “Computers for everyone”, “Computer in the Classroom”, creation of community tele-centers and the “National Program of Popular Broadband”. In the global realm, there have also been discussions in various forums and spaces about how digital inclusion is taking place among the population found at the base of the pyramid. Many initiatives taken by the governments, private companies and non-governmental organizations have been steering the debate toward opportunities for inclusion through certain technological objects such as computers and cell phones, with special attention given to the way in which the lower classes appropriate and consume these technologies.

Nevertheless, there are still few academic studies that present discussions in greater context about the issue. It seems important to introduce to the discussion about the consumption of new technologies and digital inclusion by the lower classes factors related to the existing representations among certain social actors about this consumption. This article<sup>44</sup> proposes to investigate certain representations related to the access by members of the lower classes to the technological world and the Internet universe.

The search for understanding of specific cultural contexts was well expressed by Garcia Canclini (2007) who referred to the new configurations of the digital universe, which synthesize some of the challenges of studies that explore this field of knowledge.

“(...) what are the consequences of the fact of accepting cultural diversity as a necessary ingredient for enriching the society of knowledge? We can respond in a simple manner: to conceive of society in a multifocal manner and with relative

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<sup>44</sup> The article presents the results of a study supported by the Center for High Studies in Advertising and Marketing (Centro de Altos Estudos em Propaganda e Marketing - CAEPM) of School of Higher Education in Marketing & Communication Management (ESPM). A first version of topic 4 of the article was presented at the congress INTERCOM, 2009 (Barros, 2009b).

decentralization. This general affirmation acquires distinct meanings in the sciences and in systems of socio-cultural representation. In relation to the universality of knowledge, it implies seeking compatibility between scientific knowledge and that which corresponds to other orders of symbolic experiences and cognitive models. (...) Diversity thus reappears, at the core of the project of the society of knowledge. It is the component that distinguishes the society of information and the point in which it articulates the problematic of difference and the problematic of connection. We can connect with others solely by obtaining *information*, as we do with a machine that provides data. *To know* the other, however, is to deal with their difference.” (García, 2007, p. 241)

Some authors criticize, properly so, technical and determinist approaches that point to “necessary” routes in the direction of which identities and sociabilities have been shaped since the advent of the Internet and digital life. Among these critics, Miller and Slater (2004) call attention to the fact that the distinction between “life on-line” and “life off-line” should not be established as a methodological and analytical starting point for the studies, which inspires the realization of empiric studies that show the possible configurations created by actors in specific social contexts. Wolton (2003), takes a similar position by criticizing perspectives that treat technological innovations as motors of socio-cultural change, based on large technical and determinist schemes.

One question deserves to be raised that concerns the disputes for representation among different social groups in the universe of the new information and communication technologies (NICTs). In a country with a strong hierarchic structure such as Brazil, where social differences tend to be naturalized (Damatta, 2000), it is worth reflecting on the coexistence of diversity in communication processes mediated by new technologies. From this point of view, one can approach the relations between different groups and processes of construction and negotiation of differences in the virtual world. From the perspective of the lower classes, there is a sense of exclusion, of “invisibility” and of social disqualification – which does not involve an a priori attribution made by a researcher, but of the way by which these groups perceive themselves in relation to broader society (Vaitsman, 1997). If “consuming” is important to “be part of” and

attenuate the sense of social segregation (Barros, 2007), “consuming technology” would have a strong appeal in the popular context because of the fact that technology is seen as a synonym of modernity, or that is, of the evidence of a new era in relation to which one cannot “remain on the outside.”

Neither consume technology nor have a cell phone or computer means for the subjects to be distant from a social dynamic considered basic (from the actor’s point of view) in contemporary life, which is communication mediated by technological devices. Within this situation it seems important to introduce to the discussion about the consumption of new technologies and digital inclusion in the lower classes, factors related to representations existing between certain social actors about this consumption. This article thus proposes to investigate certain representations about access by members of the lower classes to the technological world and the universe of the Internet.

To conduct the study, observational research (Flick, 2004) conducted in the virtual environment mapped various manifestations collected on sites, forums and blogs in which themes related to consumption of groups belonging to the lower classes (products, services and social networks) and the issue of digital inclusion were in some way related. In the case of the “favelization of Orkut”, the observation was conducted in 2009 on sites and blogs that appeared after entering the expression in search engines such as Google. The analysis of poverty and technology presented in section 3 is the result of observational research conducted in 2010, also based on search engine sites and accompanying various situations in which the two terms appear related (like the release of a telephone service aimed at the lower class).

This study adopts the notion of representation as presented by Chartier (1990,1997). Inspired by the work of Marin (1993), which was dedicated to the analysis of representations of power, Chartier refers to three levels of reality, that is: a level of “collective representation”, which incorporates, in individuals, the divisions of the social world and organizes the schemes of perception by which these individuals classify, judge and act; a second level, that of the forms of expression and style of identity that individuals or groups hope are recognized, and on a final level, that of the

delegation of representatives – unique individuals, institutions or abstract instances – of “coherence and of stability” of the identities affirmed (Chartier, 1997).

This paper concentrates on the first level proposed by Chartier, the “collective representations”, seeking to analyze if in the virtual world there are classifications existing on the “real” plane. It thus investigates the “look of the other”, or that is, in what way the access of the lower classes to new technologies and the virtual environment has been perceived by other social groups.

## **2. Poverty and its relational character**

From classical works like that of Evans-Pritchard (1978) about the *Nuer*, first published in 1940, passing through authors like Bourdieu (1989), who spoke of the importance of thinking relationally – which means escaping from analyses that are based on pre-established categories such as “immigrants” or “youth” – anthropological thinking sought to emphasize the idea that identity is not something fixed, but situational. In this perspective, the construction of identity is established through the perspective of the social actors, which shows that this is a dynamic and not essentialist concept, with poverty thus being a relative category. Lower class social segments can re-define their identity according to the context in which they are inserted, based on a logic that makes sense in terms of their world view, and not on “objective” criteria defined a priori, “from outside” their cultural reality.

Duarte (1986) recalls that the lower income population have been called the “masses”, the “poor”, the “people”, “uncultured classes”, “proletariat”, “the inferior classes”, “popular” and “workers”, whether to contain, raise or overcome them (1986, p.119). The author warns that both common sense as well as the academic world treat the social classes as if this concept had an objectivity independent from specific social contexts.

Since the classification of “poverty” itself tends to be negative, it is necessary to complement the identity with a component that reverts the situation and gives positive value to the equation, like work (Duarte, 1986; Sarti, 1996; Zaluar, 2002), consumption



(Barros, 2007), or another system of social or moral classification (BARBOSA, 2004). Thus, depending on the situation, the classification, now positive, could vary between: poor, *but* worker; poor *but* consumer; poor *but* connected or poor *but* honest. The sense of belonging to broader society, of “being included” would be, in fact, highly relevant in the referred to social universe.

Because of the relational nature of the concept, it is important to indicate in what way the lower classes are constituted within the analysis. In a comparative perspective, while in the middle layers there is a greater emphasis on the notion of the individual (Velho, 1981; Duarte, 1986), which, in terms of consumption, leads to a tremendous search for differentiation and signs of singularity. In the segment studied here there is a strong search to interact “equal for equal”, to know the rules, to dominate the game, to participate. On the other hand we should mention that in the lower classes there are no movements of differentiation, whether internal or in relation to other social groups. We are always speaking in relational identities, which are reconfigured according to the context. The comparison that leads to the contrast between “looking for distinction” (among the middle classes) X “looking for belonging” (among the lower classes ) appears in a broader plane, which also has nuances to be recognized.

The approach adopted here, therefore, is a contrast to that of the “culture of poverty” proposed by Lewis (1975), which is seen as something essential and nearly immutable. It is correct to say that the classification of “the lower class” is a construction produced by researchers in their studies – as has been emphasized by Sarti (1996) and Barbosa (2004) in relation to the issue of poverty. This is a relative category that cannot be reduced to a single axis of classification such as that of “material need”, for example. In reality, what is important is to indicate in what way this classification arose; in this case Dumont’s (1972) relational perspective is adopted, which works with contrasting “individualism” and “hierarchy” to deal with different cultural contexts.

In the studies of the working classes in Brazil, Duarte (1986) is the author who has most systematically developed Dumont’s perspective, which was also adopted in this article. Groups from the lower classes are not autonomous universes or isolated tribes that construct their world vision intact, under the aegis of the hierarchy. On the other hand,

authors with great experience working in the field with these groups, such as Duarte (1986) and Sarti (1996), have been concerned with revealing the singularity of their cultural experience – such as the preeminence of a hierarchical view and of the value of the family as the center of its morality.

### **3. Poverty and the consumption of technology**

After presenting this initial clarification about the relational and socially constructed character of the classification of “poor”, we move to the analysis of some representations in the field of the NICTs in relation to the issue of poverty. The access and consumption of the low income classes to technology products such as cell phones can be analyzed through some representations that are “marked” and categorized as being “poor”.

The payment system for using cell phones most widely used by the lower classes in Brazil is called “pre-paid”, which, as the name indicates, is paid before its use, and therefore has no monthly bill. The widespread adhesion of the low income population to this method leads to the immediate association of the use of the pre-paid system with a less privileged economic situation. This is revealed in the rise of one of the most popular ringtones available on the Internet – which is called “*Um pobre ligando pra mim*,” [A poor person calling me] in which this phrase is repeated melodically twice by a female voice, which then says in a formal tone: “*Chamada a cobrar, para aceitá-la, continue na linha após a identificação*” [Collect call, to accept it, stay on the line after identification]. This ringtone is triggered when the person receives a collect call and its wide use reveals, in an ironic way, one of the ways that society relates individuals, social locations and forms of use of objects and services.

A quite common practice among “pre-paid” users is when a person with little credit calls another person to warn them that he wants to be contacted and then awaits their

call, given that even without credit the cell phone in the pre-paid system continues to receive calls. Similar strategies take place in other low income contexts, as indicated by a study by anthropologists Miller and Horst (2006). In Jamaica, these authors found that the company that sells cell phones realized this type of behavior and, to take advantage of the local form of communication, released the “call me” system so that users who did not have credit could call up to 30 people for free to ask them to return the call. Some Jamaicans depend on money that they receive from other people; the circulation of money is the result of the relationships with other people and the cell phone enters this context as something essential for this dynamic to take place, functioning on different levels, especially in the family. People see the phone as an important part of their network and must be certain that their network is functioning with the maximum number of people possible, which makes the calls very fast.

Returning to the Brazilian context, the popular practice of “a collect-call ring” mentioned here, which lasts only long enough for the number making the call to appear on the screen of the person who has a post-paid system or a pre-paid with credit, has an “official” counterpart. In March 2009, the operator Vivo released the service *Vivo Me liga* [Call – Me] which, as its name suggests, serves to substitute the popular calling method mentioned. It should be noted that this call service by the company was a success, and reached one million daily uses within three months of its creation.

The release of *Vivo Me liga* triggered manifestations on blogs and Internet forums that sought to reveal the suitability of the service for its public, whether through the denomination that made direct allusion to the “poor” condition – as in the online post “*Celular Vivo. SMS free of charge. Do you know the Call the poor [service]?*” – or to the “celular de pobre” [poor person’s cell phone] popularly known as the “pai-de-santo” [a medium in the candomblé religion], because it “only receives” calls as indicated in the online post “*Vivo’s Service for pai-de-santo cell phones shows that a Brazilian has a cell phone, not money.*”

In a search conducted on Google with the terms “pesquisa celular pobre” [search poor person’s cell phone], the link appeared <http://comprar.ai/onde-comprar/motorola-w175-pobre-porem-limpinho/>, at which appears a “*listagem de onde comprar motorola w175*

*pobre porem limpinho online em loja virtual*” [list of where to buy a Motorola w175 poor but clean online in a virtual store]. At this list are found offers for the Motorola W175 model cell phone and its battery. On the “Tecnoblog fórum”, a blog dedicated to commenting on “technological experience”, there is a post entitled “Motorola W175: pobre, porém limpinho” [poor but clean] (<http://tecnoblog.net/forum/topic/motorola-w175-pobre-porem-limpinho>), with the sub-title “*Quer um celular feio, porém muito barato? Então você está a procura do Motorola W175.*”, [Do you want a poor but cheap cell phone? Then you’re looking for a Motorola W175.] which reveals the association between “poor” and a consumer object classified as “ugly”.

One factor that draws attention in these cases is the use of humor speaking of the condition of poverty and consumption related to it in more or less virtual environments both on a site of virtual sales and blogs aimed at people interested in technology. Through the use of irony, an association arises between product/social condition /aesthetic (like an “ugly cell phone”) in which the demarcation of poverty is explicitly raised – a system is thus established that classifies goods and identities, things and people, differences and similarities. To acquire certain products implies having a certain “personality” and “lifestyle” which distinguishes a certain group from others that form modern society. As Rocha affirms “...we consume to be part of certain groups and in the same gesture, to distinguish ourselves from other groups, in a complementary and distinctive logic that is very close to totemic classifications.” (Rocha, 1985, p. 172).

The association of poor and poverty to products and services in the technological universe reinstates the hierarchy found in “real” life by socially locating people through consumption. In a society like Brazil’s, formed from a strong hierarchical bias (Damatta, 1981), the clear identification of a social condition by the consumption of certain goods and services appears as a “need” for social localization in a domain that promotes access and a sense of belonging, as is the case of technological objects in the universe of lower class groups (Silva, 2007).

#### **4. The virtual “wall” and distinction on the Internet**

In the space of coexistence of the Internet environment, certain representations can be identified as related to the coexistence with alterity – which is understood as the possibility to recognize the “other” as different from “me” (Rocha, 1984). To do so, the analysis focuses on manifestations related to the growing access by members of the base of the pyramid to the virtual universe through social networks such as Orkut and their consequent digital inclusion.

Pierre Lévy (1996, 2000) has emphasized the “democratic” aspect of the Internet, as if cyber space, because of its intrinsic characteristics, favors sharing and egalitarianism, by provoking drastic changes in the ways of thinking, creating relationships and meanings in the world. The network arises in this imaginary as a utopic space where one can have access to all types of information and where the means of production of knowledge and expression of a wide variety of styles are accessible to any person, regardless of their social status and condition. In digital life the “sovereign” and “disciplinary” power lose space to a diffuse type of power, due to the enormous fragmentation provided by the experience in the network environment, where a single element potentially has the ability to influence and reconfigure the whole. This collective intelligence, which reigns in the “democratic” space that is the Internet, does not involve only a cognitive concept, but something much broader, which involves the renovation of social ties (Lévy, 2000). In the revolution provoked by the Internet, social ties are constructed upon a respect for the diversity of human qualities. In one of his works (Lévy, 2000), the philosopher makes a reference to the biblical episode of Sodom and Gomorra, highlighting that Gomorra’s crime was to refuse hospitality, which is a distinguishing element of the virtual relationship – recognizing and taking in the other:

“Hospitality eminently represents the sustentation of the social tie, conceived according to the form of reciprocity: the host is both that who receives as well as that who is received. And each of them can become a stranger (...) Hospitality consists in linking the individual to a collective. It is completely contrasted to the act of exclusion. Justice includes, “inserting”, reconstituting the social fabric. In a just society, and

according to the form of reciprocity, each one works to include the others. [In the contemporary world], where everything takes place, where all are led to change, hospitality, the moral of nomads and migrants, becomes the moral par excellence.” (Lévy, 2000, p.36-37)

It is important to question here the a priori definition of a “new world” of meanings that would be formed from the advent of digital technologies, given that no technology is established in a cultural vacuum. There is no “technological reason that carries in itself a meaning separate from concrete experiences. On this basis, one can investigate in what way modes of distinction arise in the virtual space that reaffirm social differences that are present in the “real world”, which would contrast to the idea of a space of peaceful coexistence with diversity.

The “favelization of Orkut” appears as a point to be explored, by raising the question of digital inclusion and of coexistence with difference. In some blogs, lists and forums, Internet users, who are supposed to be members of the middle and upper layers, begin to express themselves – often quite explicitly and critically – against the effects of the growing access by the lower classes to the digital world. An observation of the social origin of people analyzed is fitting here. It is known that in the virtual environment there is considerable space for disguise and simulation, with countless situations in which the identity performed is very distant from the daily profile of the agents. But in the case of this study, those who complain about the “favelization of Orkut” place themselves in an hierarchically superior position in relation to the “poor” which leads us to suppose that they are – or at least perceive themselves to have – a relation of social distance from the lower classes.

It is in this context that the expression arose, “favelization of Orkut,” which suggests an association between “favela”, “poverty” and “poor taste”; the “invasion” of the Brazilian poor on the Internet, which is especially visible on social networks such as Orkut, would bring with it a wake of “tacky” taste that is expressed in photos posted and in the precarious use of the Portuguese language, as appears in some of these declarations;

“Why? Because any little weed who buys a computer in the Casa & Vídeo [brazilian retailer], in 317 installments, wants to get on the Internet and have a profile on Orkut?

Orkut was useful. Today it is infested with illiterate people. Everyone wants to be sensual. Everyone wants to be famous. What’s worse is they all procreate...

But there is a way out! There is light at the end of the tunnel.

Bagulho Digital [Digital Stuff] launches the campaign SAY NO TO ELECTRONIC FAVELIZATION.”

(<http://bagulhodigital.blogspot.com/2007/09/favela-eletrnica.html>)

“You know, Brazilians are still new to this Internet thing, and unfortunately transfer the mediocrity of life to the Orkut. That is, Brazilians turned the Orkut into a favela, really “favelized” it, that is the term. And not just Orkut... Fotolog.net WAS the best online photo system. Was! Until it was discovered by Brazilians.”

(<http://www.morroida.com.br/2006/08/28/sobre-o-orkut>)

“A large part of the discharacterization of Orkut, is due to the much discussed digital inclusion. Thanks to Casas Bahias [brazilian retailer] and common insinuators, we can buy PC’s for R\$ 700,00. In needy communities, Lan Houses pop up that charge from R\$1- R\$2 an hour. So, those with no education are no longer without technology. Therefore, we have the newest socio-political-economic problem: **The FAVELIZATION OF ORKUT!**”

(<http://metabolismobasal.blogspot.com/2007/12/lembra-do-longnquo-ano-de-2004-lembra.html>)

“If this has taken place with Orkut and Fotolog, just let the favelada [slum dwellers] discover YouTube... if they haven’t already ...without wanting to be separatist, but already being so, it stinks having to coexist with certain sub-

cultures who have been sprouting up on the Brazilian Internet...”  
(<http://www.morroida.com.br/2006/08/28/sobre-o-orkut/>)

Along with these manifestations, the “anti-digital inclusion” Internet users place together with their comments photos considered “crude”, found on Orkut and fotologs of low income people, to illustrate their indignation. What draws our attention here is the reinforcement of negative representations associated to “favelas” among the members of the middle and upper classes. As a location commonly associated to extreme poverty, filth, chaos and social disorder (Valladares, 2005), the idea of “favelization” on the net is a revised version of old perceptions. In one of the statements (the second) the country appears as a large favela; this involves a concept that Brazilians “contaminate” the environments – real or virtual – where they pass, as “unqualified” people in relation to other nationalities.

The undesired digital inclusion causes certain more favored economic groups to reject Orkut, alleging that it is impossible to coexist in the same virtual space with the manifestations of a “lack of taste” and formal education coming from the “periphery”. The need thus arises for distinction that leads to a migration to more elite social networks such as Facebook.

How can we think of the question of distinction on the network in the context being studied? Pierre Bourdieu made an important contribution to the analysis of the relation between consumption and social classes in his classic study *Distinction* (1979), in which he analyzes how the social elaboration of taste is established, arguing that choices for consumption objects reflect a type of symbolic hierarchy that is determined and maintained by economically superior classes to reinforce their distinction from other social classes. Thus taste is an element that defines and separates the upper class from the working classes, expressing itself in choice of food, drink, cosmetics, music, literature, etc. Appearing in social life in a naturalized way, it becomes the criteria par excellence of distinction legitimation, encompassing all the dimensions of human life that include choice and, in this way, constituting social groups.



For Bourdieu (*ibid*), the social classes have distinct consumption models that are continuously reproduced from generation to generation. The processes of education and socialization contribute to the insertion of individuals in a certain class, producing specific tastes and consumption practices. Upon internalizing their class position, it would be difficult or undesirable to imitate the life style of other classes. Bourdieu introduces the concept of “cultural capital”, which includes cultural knowledge, abilities, experiences, linguistic competence, ways of speaking, vocabulary, models of thinking and world views that are acquired unconsciously by individuals through the socialization processes in family, school, church, neighborhood and subculture to which they belong. Each individual would thus assimilate the cultural capital of the social environment in which he or she was born.

In his analysis, Bourdieu (*ibid*) suggests that the middle class seeks to convert cultural capital into economic capital (which comes to be the economic resources of each individual), while the working class is resigned to restricted consumption choices, accepting the world of limited horizons as a form of class loyalty and because low cost tastes protect against economic uncertainty.

This perspective obviously rejects the idea that taste would be the result of innate and individual choices of the human intellect. To the contrary, it shows the social production of taste, which, as a true “social weapon”, reinforces the distinction between social segments.

Together with the social analysis of taste, Bourdieu works with another important concept in relation to his concerns about the cultural differences that oppose social groups: the notion of *habitus* (Bourdieu, 1983), which characterizes a social group in relation to another that does not share the same social conditions. By occupying different positions in the social hierarchy, the classes adapt certain lifestyles that would be symbolic expressions of the diversity of living conditions. *Habitus* is thus the “materialization of collective memory that reproduces for successors the acquisitions of the precursors” (Bourdieu, 1983, note 4, p. 91); at the same time in which it is deeply interiorized, it can be renovated over time, inventing new means of performing old functions that guarantee that members of the same class act in a similar manner. Its

strength of modeling a way of life of individuals comes from the fact that it is based on unconscious schemes that result from the work of the education and socialization to which individuals are submitted since their early childhood. This materialization of collective memory also takes place through “corporal dispositions”; each social group forms a relationship with the body that is its particular style, functioning as an “incorporated moral”. A person belonging to a certain group shares gestures and postures that reveal their *habitus*. In this point Bourdieu calls attention to the process of “naturalization of the social”, because individuals face these different corporal modes as something “natural”, without perceiving that *habitus* is acting in a deep and unconscious manner, guaranteeing the permanence of social differences. The formative presence of *habitus* guarantees the homogenization of tastes within a group or social class, explaining the preferences and social practices within a certain context.

The manifestations against digital inclusion collected in the study show the need certain individuals from middle and upper layers have for distinction when facing the approximation and occupation of lower class groups in territories that had once been nearly exclusive. As seen, according to Bourdieu (1979), accusations about the (poor) taste of low income people are like a social “weapon” that distinguishes groups based on a process of social disqualification that appears to be extremely natural. The online material referring to the “favelization of Orkut” shows photos that denounce an aesthetic perceived as “wrong”, where individuals who are “uncouth” or “tacky” exhibit the “poor taste” of class both in clothes and accessories, while also in their bodies that are considered inadequate (next to photos were placed criticisms common to corporal factors such as “excessive” weight and the hair styles of the low income youth). The lower classes should thus remain in restricted spaces – and Orkut would be one of these locations of confinement – creating the need, on the part of the discontents with the virtual proximity, of a shift to other social networks.

Thus, the “democratic potential” of the Internet is experienced, in this context, as a threat to certain groups belonging to the middle and upper classes. Remembering once again Douglas and Isherwood (1979), if consumption serves as a “bridge or barrier”, a digital “wall” is raised based on a growing participation of lower income groups in

social networks such as Orkut. Boyd (2008) had previously analyzed in what way the options taken by U.S. Internet users for social networks - MySpace, which was more popular, or Facebook, seen as “aristocratic” – could reveal choices of class seeking distinction. In the Brazilian context, we find clear signs of distinction and expression of power revealed in the question of the “favelization of Orkut”. Since 2010, there was a strong migration from Orkut to Facebook by some of the members of the higher socio-economic classes<sup>45</sup>, in search of a distinct virtual space that was not “contaminated” by the presence of the lower classes. This involves a movement, subtle at times, where an “obligation” to abandon Orkut appears.

The fear of the potential “pollution” caused by virtual contact with the lower classes can be considered in the light of Douglas’ (1976) idea about “purity and danger”. Douglas discusses the concepts of “purity” and “impurity” as found in the Jewish and Christian religions by showing how the behavior of cleansing is related to a positive force of organizing, classifying and hierarchizing the environment, or that is, creating order. Passing to an interpretation of the coexistence difficulty in the virtual space analyzed here, using this logic one can think of a similarity, given that the order is also achieved by means of difference demarcation.

It is interesting to consider DaMatta’s (2000) analysis about modes of segregation in Brazil and the United States. Upon speaking of the racial question, DaMatta proposes that the model adopted in the United States is that of “equal, but different”, because it involves a society based on egalitarian principles and which, for this reason, wound up creating modes of segregation that are quite explicit and exclusionary; the Brazilian case, in turn, can be translated by the idea of “different but equal”, given that the

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<sup>45</sup> See: “[Orkut x Facebook: Divisão de classe no Brasil?](http://www.pontomidia.com.br/raquel/arquivos/orkut_x_facebook_divisao_de_classe_no_brazil.html)”, by Raquel Recuero. Available at: [http://www.pontomidia.com.br/raquel/arquivos/orkut\\_x\\_facebook\\_divisao\\_de\\_classe\\_no\\_brazil.html](http://www.pontomidia.com.br/raquel/arquivos/orkut_x_facebook_divisao_de_classe_no_brazil.html), last accessed on Nov. 23, 2010; “Orkut X Facebook no Brasil”, available at: <http://blogdolabjor.wordpress.com/2010/11/08/orkut-x-facebook-no-brazil/>, last accessed on Feb. 2, 2011.

society is perceived as originally hierarchical, which would allow approximation of the parts as long as each one does not forget their distinct origin:

“A system that is in fact profoundly anti-egalitarian, based on the logic of ‘a place for each one, each one in its place’, which is part of our Portuguese inheritance, but which was never really shaken by the social transformations. In fact, a system that is so internalized, that among us, it goes unnoticed.” (Damatta, 2000, p. 83)

Thus Brazilian society likes to see itself as an inclusionary nation, in which differences coexist harmonically, as in the myth of the triangle of the 3 races (Damatta, 2000). Nevertheless, in various moments, ruptures arise in this scheme, giving space to the appearance of authoritarian rites such as “Do you know with whom you are speaking?” (Damatta, 1981) which re-establishes an hierarchy among individuals, or as in the case of the data raised by the study, in which spaces, life styles and tastes are marked in a quite explicit manner. The “danger” of the virtual world is precisely that it offers the possibility for an extreme approximation of social differences. The arguments raised in the idea of the “favelization of the Orkut” appeal to the naturalized hierarchical principles that are deeply enrooted in Brazilian society, requesting that the lower class groups remain in their restricted spaces, within the logic of “each one in his place”.

## **5. Final Considerations**

The article sought to analyze representations of certain social segments that are more economically favored about the inclusion of low income groups in the new communication environments. The study initially looked at the way in which the consumption of technological products such as cell phones by segments of the lower classes can be analyzed through some representations that initially indicate a classification of products and services that are categorized as “poor”.

The demarcation of products and services with the classification “for the poor” relate to Bourdieu’s perspective (1979), which emphasizes that efforts to establish “distinction” are a key aspect of consumption of different social classes, and his strong concern for showing this phenomenon as a mode of reproduction of social mechanisms for the

maintenance of hierarchies among classes. In this case, the representations found related to this consumption serve for the creation of “bridges and barriers” (Douglas et al, 1979), modeling profiles of products and people within a certain classificatory system.

Considering the perspective of segments of the lower classes in relation to the appropriation of new communication technologies, we have a framework (Barros, 2009a; Silva, 2010) that points to the use of cell phones within a logic of belonging, or that is, of escaping the social invisibility to which they were relegated to become simply “poor”. “To be a consumer” – and in this context, to be a consumer of a certain cell phone – signifies overcoming the condition of poverty. The dimension of consumption rose in this context as if it had the ability to offer belonging and inclusion in the broader society of consumption, defining the subjects as poor and consumers. While in other social groups in the middle and upper classes what calls attention is the construction of identities and emotional ties that reinforce the singularity of individuals (Silva, 2007). In the lower class context, this other dimension is revealed – that of being “accredited” to participate in the society of consumption, knowing the rules and acting as social actors who through consumption have the power to attenuate the enormous social differences in the Brazilian social universe.

Continuing in this internal perspective of social actors, the use of the NICTs by lower class groups can be understood as a privileged means of seeking more egalitarian relations with the other within the broader society. In this case, it is within a more egalitarian sense (being equal to everyone) than one of affirmation of idiosyncrasies (having a singularity that can be expressed in the processes of objectification through a cell phone). Based on inspirations from the works of Dumont (1972) and Simmel (1971), we can think of a passage from an hierarchical situation (being “poor” as hierarchically inferior to “being rich”) to an egalitarian relationship (being “equal to each other” in the sense of the quantitative individualism postulated by Simmel, where all are on the same plane of existence). For Simmel (1971), quantitative individualism would be found in the universalist and enlightenment ideals that affirm the liberty, equality and autonomy of the social subjects – the “citizens” – of modern democracies. Qualitative individualism, meanwhile, would be sustained in the attributes of

singularity, interiority, authenticity and creativity of the subjects. In contrast to the quantitative individualism in the lower class context studied (having a cell phone to be an “equal”), we find processes of objectification based more on qualitative individualism in the universe of the urban middle class, where the consumption of cell phones tends to reinforce the singularity of the individual before peers.

We thus have a contrast that can be established. On one hand, the representations of social groups in relation to the use of technology by lower class segments lead to classifications that insist on the attribution of an “essence” to the condition of poverty, which is formed by a negative symbolism that would socially disqualify and seek a virtual distancing from those classes. This involves the perpetuation of hierarchical relations (Dumont, 1972) where the rich and the poor maintain their inequality and complementarity, within the logic of “each one in his place” (Damatta, 1981). On the other hand, the appropriations of the lower class segments in the field of new technologies seek, to a large degree, the dissolution of hierarchical schemes through the establishment of more egalitarian relations with the other, which are based on the idea of “having access” to the “new world” of contemporary connections.

Based on what was seen in the article, a great difficulty can be perceived by the part of certain social groups in elaborating alterity in the virtual environment. Alterity is understood here as the recognition and knowledge of a plural humanity based on a radical “decentering” in which all the cultures are relativized (Rocha, 1984; Laplantine, 1996). The recognition of alterity presupposes a qualification of the other as “different from me”. The theme of the “favelization of Orkut” serves as a discussion of how the construction of alterity can be problematic in the virtual universe, reproducing consolidated modes of segregation and disqualification aimed at low income groups, which questions the imaginary of the Internet as a “democratic” social space par excellence.

Finally, to deepen the discussion, it would be important to make a greater effort to understand the NICTS, based on the cultural reality in which individuals are inserted, investigating their appropriations in relation to technology and the virtual world in future studies based on empiric and contextualized research. The Internet embodied the

utopia of the “electronic democracy,” especially for authors such as Castells (1999) and Lévy (1996; 2000). Castells (1999) envisioned a “new society”, which would have as one of its central components a “multimedia culture” without stratification, where individuals in egalitarian conditions would be found immersed in virtual networks.

As Maigret (2010) and Wolton (2003) have already identified, it is necessary to escape from the technological determinism that surrounds a significant portion of the literature about the Internet, as mentioned above. Greater attention must be paid to the cultural practices that precede the use of this technology and which create particular configurations. As Maigret summed up well: “Given that it does not present anything coherently, and responds, much more, to contradictory social demands, the Internet develops in superimposed layers that are increasingly numerous, of frequently different logics.” (Maigret, 2010, p. 409). As Sahlin (1979) presented in an important work, the particular characteristic of human life in society is the symbolism inscribed in all social acts. For this reason, the meanings of human life are collectively constructed. There is no objective reality – in this case a technological one – which is separate or autonomous from the social subjects. The new information and communication technologies are inserted in the context of already constituted human and social relations and do not promote on their own a universe of pluralist coexistence. The visions about the social differences lived in the off-line world can perpetuate in the on-line realm, as seen. It is thus necessary to analyze the “superimposed layers” mentioned by Maigret, revealing the fields of negotiation and dispute for representation among different social groups.

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# Collaborative learning processes in an asynchronous environment: an analysis through discourse and social networks

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## Abstract

This article analyses an experience in collaborative learning in an asynchronous writing environment through discussion forums on a WebCt platform of the University of Huelva's virtual campus, and was part of an innovative teaching project in 2007-08. The main objectives are to describe the processes of collaborative knowledge construction and the relevance of many-to-many communication in collective case resolution in asynchronous writing contexts. Two cases were selected for the experience, and two analytical approaches were adopted: discourse analysis and social network analysis. The results show that in the Case A group, where speech occurrence was less prevalent, the social network analysis markers show considerable cohesion and low levels of network centrality. By contrast, speech prevalence was greater in the Case B group and the network centrality markers were higher, although the group was less cohesive. These results lead to the hypothesis that many-to-many communication is more important in collective knowledge generation processes than dyadic or triadic communication.

**Keywords:** Asynchronous collaborative learning; discourse analysis; social network analysis; curricular practicals; discussion forums; many-to-many communication

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## **1. Introduction**

### **1.1. Collaborative learning**

Peer-to-peer learning covers a wide range of approaches, and it is important to consider it within the broadest possible context as determined by the didactic programme and the context of the centre (Coll & Colomina, 1990).

Considerable effort has been made to define collaborative learning and differentiate it from cooperative learning. According to Damon and Phelps (1989), both types of learning are defined as an action centred on the acquisition and / or application of knowledge established by a group of students. However, in cooperative learning, the skills of group members are heterogeneous within margins of proximity, while in collaborative learning the students have similar skills. In collaborative learning, Monereo and Durán (2003) state that the group's level of reciprocity, dependence and mutual interest is high, given the symmetry of skills among its components. Likewise, there is a common tendency to understand collaborative learning as the most general expression of the various dimensions of learning among equals, it being the most natural and spontaneous form of learning among peers. By contrast, cooperative learning demands a certain level of organization and planning of interaction. Collaborative learning is also recognized as appropriate for university education.

## **1.2. Virtual synchronous communication**

The potential of virtual communication to integrate written and spoken language, together with its synchronous and asynchronous capability to be everywhere but have no base, makes it a particularly useful medium for collaborative learning. Nevertheless, its use in joint activities and the shared creation of knowledge reveals its limitations, and requires the formulation of some basic rules.

Some of these limitations are related to the difficulty of fluid exchange when taking turns in communicating, and the absence of paralinguistic complements, such as intonation and gesture, to transmit emotional aspects and more subtle meanings, which are currently described by emoticons. However, the use of virtual communication in the discussion of complex themes is especially opportune due to inherent values like asynchrony associated to the time available to think, to finding information and setting up discourse before responding, the permanence of messages that allows a more considered reflection on their content (Ramos, 2007) and the absence of social pressure, freeing participants to act in a critical way (Harasim, Hiltz, Toroff & Teles, 2000; Tirado, 2002; 2003; Schrire, 2006; García, Ruiz & Domínguez, 2007; Álvarez, 2007; Casanova, 2008). An assessment needs to be made of situations and conditions in which virtual communication is deemed appropriate, as opposed to other instances when physical contact is essential (Casanova, 2008).

## **1.3. Collaborative learning in virtual contexts**

Collaboration has two distinct functions in virtual contexts: as a synonym of social interaction, fomenting the cooperative construction of knowledge, and, as a counterpoint to the concept of independent learning, a reference to the construction of meanings shared with others, enabling the interdependence of the participants' learning (Barberá, 2004).

From our point of view, and within the framework of this experience, we understand collaborative learning to be a communicative process directed towards knowledge construction among peers with similar skills in a virtual scenario of positive interdependence.

#### **1.4. Many-to-many communication via forums**

Differences within virtual contexts are now clearly established; computer conferencing, for example, with its three different forms – one to one, one to many and many to many – each with its own features that influence the teaching-learning processes (Hilt, 1990; Wheeler, 1997). As a forum tool, many-to-many communication enriches and socializes knowledge via the ideas, experiences and knowhow brought to it by its participants.

The idea of “collective intelligence” (Lévy, 2001) is one of several related to many-to-many communication, this being the common factor among the new forms of intelligence based on a structure of communication that is all-to-all, ubiquitous, asynchronous and enhanced by the development of information and communication technologies. Collective intelligence arises in cyberspace supported by Internet mechanisms of one-to-one, symmetrical and many-to-many communication. Computer conferencing enables a type of communication in which all the connected nodes can be broadcasters or receivers, participating collectively and on equal terms in the generation, negotiation and definition of collective knowledge (Pierre & Kustcher, 2001).

These new concepts of knowledge have their roots in the theory of conversation based on the social nature of learning proposed by Vigotsky (1978). The role of social interaction within this theoretical framework is crucial for promoting learning. The acquisition of new knowledge is the result of the interaction of students who participate

in a dialogue. So, learning is a dialectical process in which an individual contrasts his personal point of view with that of another to reach agreement. Information and communication technologies have the potential not only to reduce the isolation of distance-learning students but also to create a social environment in which learning is made easier through discussion of course content by articulating and communicating ideas, simultaneously hearing and evaluating the ideas of others.

### **1.5. Discourse analysis in asynchronous communication**

Gone are the times when studies on collaborative learning were limited to identifying its effects on and relation to different methodological variants. Now the new generation of researchers seeks to identify the causes and mechanisms behind the positive results of collaborative learning, focusing attention on the processes of collaborative interaction among peers.

Henri (1992) is especially relevant for specifying five dimensions: participative, social, interactive, cognitive and metacognitive. Guanawardena, Lowe & Anderson (1997) centre on the cognitive dimension relative to the process of the social construction of knowledge by establishing the following stages: a) sharing and comparing information; b) discovering and exploring dissonance and inconsistency between ideas, concepts and principles; c) negotiating the meaning and mutual construction of knowledge; d) testing and modifying the synthesis or co-construction proposed; e) declaration of agreements and application of new meanings. Similarly, Rourke & Anderson (2003) propose a specific model for case studies in virtual collaborative contexts: a) learning and experimenting with the platform; b) planning group work; c) finding solutions individually; d) finding solutions collaboratively; e) preparing the final result individually and collectively; f) drawing up the final document.

Garrison & Anderson (2005) propose a three-dimensional system: a) cognitive presence; b) social presence; c) teaching presence. Marcelo & Perera refer to the social, cognitive and didactic dimensions. Recently, a doctoral thesis by Casanova (2008: 80-81) revised these models and identified three analytical categories:

- The psychosocial relations of help, assistance, support, encouragement and reinforcement among group members. These have a positive influence on motivation and affectivity, and on the group social dynamic.
- The construction of meanings through language. This presumes the devising of goals, plans, ideas and concepts by the group; offering and asking for explanations and proposals; negotiating, coordinating and regulating contributions, points of view and roles in the interaction.
- Positive interdependence between members in the development of the learning activity. This can be based on the objectives, the task, the resources and / or the reward (Johnson & Johnson, 1999). It involves considerable responsibility and commitment on the part of each group member to the learning process and to the rest of the group.

These contributions establish category systems that help us to understand the processes of knowledge construction. But, as Gros & Silva (2007) point out, it is impossible to use a valid, universal reference system given the diversity and uniqueness of each experience.

## **1.6. Analysis of social networks**

Since virtual learning contexts are supported by the creation of social networks, any study of the processes of psychosocial relationships requires the analysis of the general structure of the network and the position of its components within it in order to examine the social structures that underlie the flow of knowledge, information, exchange and learning. Some of the markers used in the analysis of our experience are the following: size is one of the main structural determinants of the level of possible participation in a



network; group size is also important in the calculation of other parameters of network definition, such as density (Ridley & Avery, 1979). If certain students are not members of a particular network (because they opted for another communication network, for example), their absence must be noted in the size value (Fahy, Crawford & Ally, 2002).

Density is a measure of the breadth of the social experience of the individuals in a group (Berkowitz, 1982), and it can also be seen as a calculation of connection with the network, connection being the links between pairs of network members that occur as a result of the initiative taken by any member of its constituent parts.

Various methods have been proposed to calculate density (Ridley & Avery, 1979). We can take it to be the proportion between the number of links between group members and the number of total possible links among all colleagues.

Density can be useful for determining the quality of interaction but it needs to be treated with caution. Values for density could be high due to the efforts of a few “connectors” (subjects). If this occurs, we would be left with inflated density figures while the mean number of connections for all network members remained low. That is, a relatively small number of participants would account for a large chunk of the interaction (Fahy, Crawford & Ally, 2002).

Another reservation is that network density is closely related to size, and density data from larger networks are predictably lower than in smaller networks. So, density value comparisons ought not to be made between groups of different size as a way of deducing network connection (Rytina, 1982).

Another concept that helps explain a group’s properties is centrality. This is generally associated to the relative centrality of the points on a graph, and also occasionally refers

to another completely different aspect, which is the network's degree of centralization as a whole. In this sense, Freeman (1978) makes a difference between point centrality and graph centrality. Scott (1991) proposes clarification by using centrality to refer only to the centrality of the points, and centralization as a reference to the problem of the internal cohesion of the graph taken as a whole; that is, the centrality of the graph.

With this in mind, centrality studies those participants who are the most prominent, influential and reputable. Markers deployed in the asymmetric networks provide specific information on these aspects, with outdegree and indegree markers indicating outgoing and incoming contact respectively. Outdegree indicates each participant's social activity and the extent of access to other participants. Indegree reveals the most influential participants, the ones most referred to by the rest.

The centralization index refers to the participant who acts as the centre, connected to all the nodes which have to pass through this central node in order to connect to the others.

A network's degree of centralization indicates how close it is to being a star network, in which a participant or an object acts as the centre that controls or channels all activity in the network.

## **2. Study objectives**

This study is based on the supposition that many-to-many communication within a group via computer conferencing is better suited to speech construction in collaborative learning contexts than dyadic and triadic communication, for example, as revealed by markers of communication density in the social network for which they were created. Although these other forms of communication can play an important role in the initial stages of the group's collaborative learning process, they are not as essential in the

generation phase of collective knowledge as many-to-many communication, as measured by centrality and network centralization markers.

Based on these suppositions, the aims of this study are:

- 1) To describe processes of the collaborative construction of knowledge based on the resolution of practical cases with regard to the following: socio-affective relations, positive interdependence and shared construction of meaning.
- 2) To note the relevance of many-to-many communication in the shared construction of knowledge compared to other forms of communication such as the dyadic or triadic options.

### **3. Description of the experience**

The project is based on the organization of groups of students on the Social Education diploma course who are doing curricular practicals (related to minors at risk, drug addiction, local development, social services...) but who are designated to different institutions and centres, with different programmes. Each group has to study two real cases at the centres where the students are doing their practicals.

Each working group is given the following resources:

- A protocol on how to resolve cases and problems in a cooperative form in virtual contexts, based on the Rourke-Anderson model (2002).
- On-site evaluation of practicals by a teacher-supervisor who will take the student through the protocol on resolving cases and problems.
- This project's main instrument is the WebCt virtual training platform, which has three basic areas: content and material, communication and work assessment.

Each group also has a forum where team work can be discussed and carried out, and an area for uploading and downloading files.

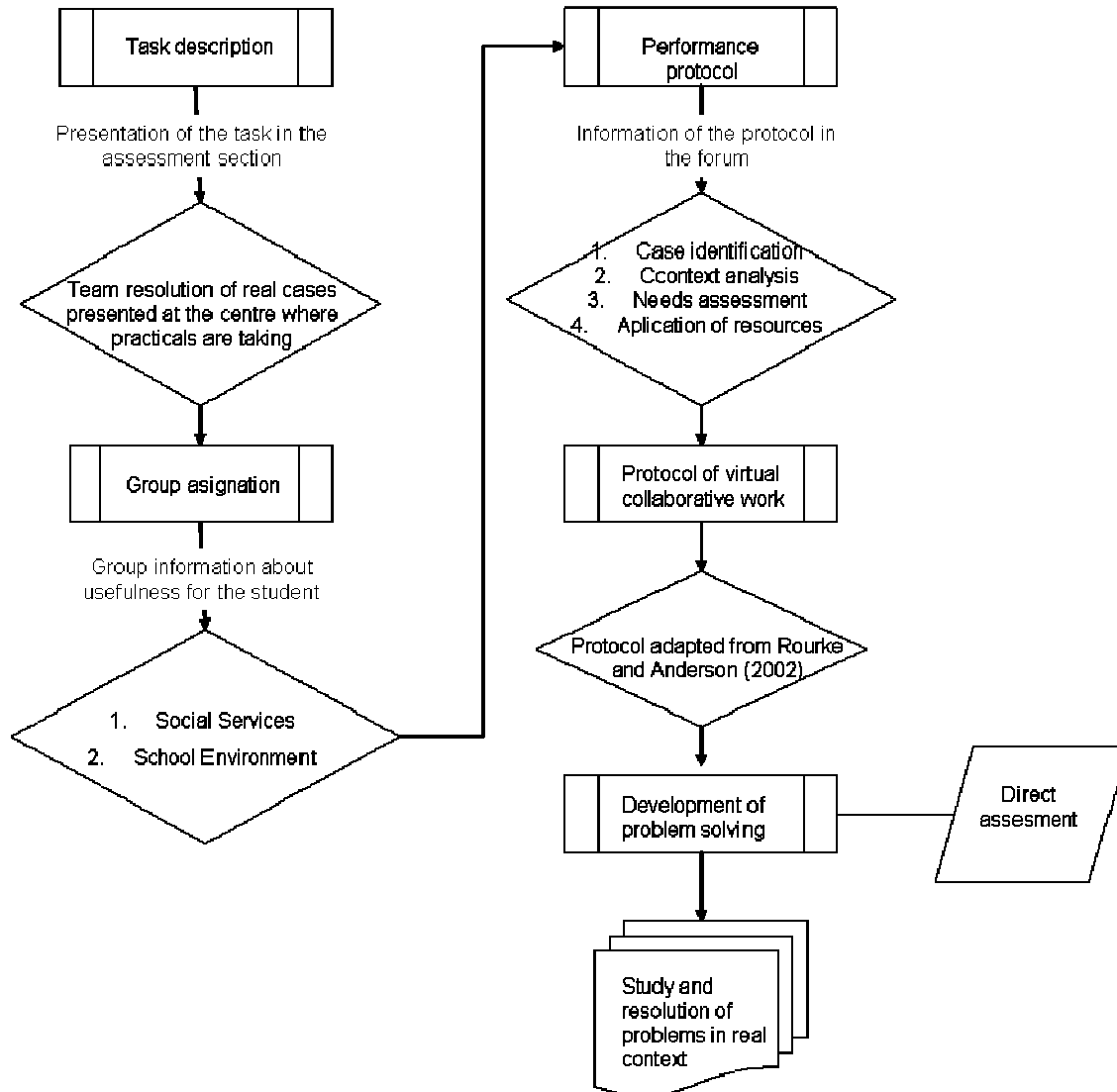


Figure 1

The task, which falls within the framework of techniques compiled by Barkley et al. (2007) for collaborative learning in the university context and which is applicable to the virtual environment, is a structured technique for problem solving. The students follow a structured protocol for solving problems that is used in the method procedure of cases

in social work. That is: identify the problem situation (investigation), understand the situation, find out how this situation has arisen, why it persists (diagnosis), and propose an assistance plan (treatment) supported in available or viable institutional resources to solve the problem.



Figure 2

Those who took part in the experience were third-year students of the Social Education diploma course placed at centres where they were to do their curricular practicals (tackling absenteeism, disabilities, minors at risk, senior citizens, addictions...). As concerns this article, we divided these students into two groups. The selection criteria used were development discrepancy and communicative structure, and we set up representative cases for the experience. The number of members per group was seven and nine, respectively.

#### **4. Method of analysis**

From the descriptive point of view, we made an analysis of the interaction among members of the different learning groups throughout the experience; each group was self-managed. The dimensions considered for the analysis were the following:

- 1) From a time perspective: phases of cooperative work, its development in time in the process of solving real practical problems with regard to the categories previously defined: psychosocial relations, positive interdependence and construction of meaning.
- 2) From a structural perspective: density, centrality and centralization of the social network.

As an instrument for discourse analysis, we used the records of interventions in the forums created by each group on the platform.

We chose this direct observation technique in order to define more objectively the frequency of intervention of each member and the types of interactions that were taking place. This type of analysis is increasingly common in studies of virtual learning communities (Fahy, 2003; Rourke & Anderson, 2002; Wasson & Morch, 2000; Heift & Caws, 2000; Fahy, Crawford & Ally, 2001). However, it excludes a longitudinal analysis of the interactions that occurred.

The system of categories for the register and analysis of the activities of each group's members was focused deductively and inductively, taking Hunter's models (1997) as reference for the analysis of the case study processes for the team work, Rourke & Anderson's proposal (2002) & Casanova's synthesis (2008).

Table I. System of categories for the register and analysis of activities

Category	Subcategories	Definition	Examples
Psychosocial Relations	Encouragement	Interventions whose aims are to encourage the group and / or affective contact to maintain cohesion among group members.	<p><i>...Come on everyone! There isn't long to go! (let's not get stressed out, eh!)...</i></p> <p>(Message, 1310, Belinda Pinzón, Tuesday, June 10, 2008 19:04)</p>
	Greetings, Apologies...	Affective contributions necessary for creating a predisposition towards communication.	<p><i>...Sorry for the delay but I am only just getting used to this...</i></p> <p>(Message, 498, Juan J. Escobar, Wednesday, May 14, 2008 17:03)</p>
Positive inter-dependence	Clarifications	Interventions that consist of clarification of some aspect of case resolution.	<p><i>... If you click on "students" you will see the names of all the students in the group... (We are 10). Each of us presents a case and two are selected...</i></p> <p>(Message, 254, Mª Paz, Thursday, April 24, 2008 11:39)</p>
	Questions	Contributions in the form of questions that seek clarification on certain aspects of the case.	<p><i>...the child according to Ramón, where did we have to place him? In the School Absenteeism Plan?</i></p> <p>(Message, 1136, Ana Mª, Thursday, June 5, 2008 17:10)</p>
	Proposals for investigation	Contributions of investigation proposals that enhance the legal, conceptual and technical knowledge of the case to be resolved	<p><i>The steps we have to take are: plan, discuss the case demands, assess and share out roles, etc</i></p> <p>(Message, 309, Nazaret Peguero, April 30, 2008 12:34)</p>
	Organizational communication	Interventions whose purpose is the organization and distribution of tasks, and maintaining contact among group members.	<p><i>You're welcome, Inés. If anybody still can't see it, they can contact either of us and we will copy it here as a message...</i></p> <p>(Message, 900, Sonia Castro, Wednesday, May 28, 2008 15:08)</p>
Shared construction of meanings	Enclosing information	Interventions based on	<p><i>With respect to institutional support, we have:</i></p> <ul style="list-style-type: none"> <li>- Ticket purchasing programme.</li> <li>- PAHI assistance.</li> <li>- Purchase of medication...</li> </ul>

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	the content of the task. Information is sent in order to add it to the final synthesis or present it for critical analysis and comments.	(Message, 338, J.M. Bellido, Monday, May 5, 2008 15:43)
	A critical evaluation of	
Information criticism	information supplied by colleagues with a constructive purpose.	<i>So far the contributions seem to be correct but apart from teachers' needs, teachers should also be trained.</i>  (Message, 838, Fco Lucas, May 26, 2008 20:43)
Offering solutions	Offering case solutions	<i>What we could do is give the neighbourhood other alternatives, after-school activities that broaden their social circle.</i>  (Message, 937, Cristina Cerón, Thursday, May 29, 2008 17:17)

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Triangulation was used when creating and analysing the categories (Silva & Gros, 2007) in order to resolve the problem of system category reliability. In the codification process, we used various researchers who analysed the same forum applying codes with regard to definitions of categories and subcategories. We then contrasted these codifications to get a redefinition of some categories and a definitive version of the systems of categories that would give us clear, unanimous criteria when applying the codes to the discourse.

For discourse description, the subject unit was taken as the unit of analysis, as opposed to other units of analysis like the syntactic (proposition, work, phrase or paragraph) or the message. The subject unit, or meaning unit, is defined as a unit of meaning, thought or idea (Rourke et al., 2001). Although the subject unit is not objectively recognizable, like the message or the syntactic unit, it always adequately comprises the construct under investigation, even though it induces a subjective and inconsistent interpretation of the unit.



We used UCINET6 for Windows to analyse the networks. Three social network markers were analysed. Density was analysed as a network property marker, enabling us to perceive the relations among group members.

We also examined global network cohesion markers through analysis of the geodesic distance of the network applied to asymmetric networks. These markers enabled us to study the network members' connections among themselves. These markers provide profiles that help reveal the degree of decentralization of communication in the forums.

Thirdly, we analysed network centrality which, being asymmetric, involved measuring outdegree and indegree, as well as social network centralization as a manifestation of the power of forums as a medium for many-to-many communication.

The Netdraw program was used to draw graphs of the network structures. Graph distribution was non-random, taking into account the properties of the network, and its values of cohesion and centrality in terms of each subject (node) and the group (network).

## 5. Results

### 5.1. Case A

#### Discourse analysis

**Table II: Interaction patterns. Case A**

SENDER		INTERACTIONS										RECEIVED						
		Psycho-social relations		Positive interdependence			Construction of meaning											
		Encouragement	Greetings, apologies...	Clarifications	Questions	Investigation proposals	Communication	Enclosing information	Critical information	Providing solutions	Forum	Cinta (co-ord.)	Marina	Mario	Reme (co-ord.)	Erica	Fca.	Dynamizer
Cinta (co-ord.)	<b>24</b>	2	2	8	1	0	13	2	0	2	10	<b>X</b>	3	1	4	1	5	0
Marina	<b>12</b>	0	2	1	3	3	4	1	0	0	3	6	<b>X</b>	0	2	0	1	0
Mario	<b>1</b>	1	0	0	0	0	1	0	0	0	1	0	0	<b>X</b>	0	0	0	0
Reme (co-ord.)	<b>17</b>	0	5	4	4	0	4	3	1	1	11	2	0	0	<b>X</b>	1	3	0
Erica	<b>14</b>	2	2	1	3	1	6	2	1	1	10	1	0	0	2	<b>X</b>	1	0
Fca.	<b>21</b>	1	1	1	6	3	8	2	0	2	11	6	1	0	3	0	<b>X</b>	0
Dynamizer.	<b>5</b>	1	0	1	0	1	2	0	0	0	2	1	0	0	2	0	0	<b>X</b>
TOTAL	<b>94</b>	<b>7</b>	<b>12</b>	<b>16</b>	<b>17</b>	<b>8</b>	<b>38</b>	<b>10</b>	<b>2</b>	<b>6</b>	<b>48</b>	<b>16</b>	<b>4</b>	<b>1</b>	<b>13</b>	<b>2</b>	<b>10</b>	<b>0</b>
		<b>19</b>		<b>79</b>			<b>18</b>					<b>46</b>		<b>43</b>				

Increasing-accelerated interaction is generally characterized by a process in which a time period appears at the end of the case, when there is a notable increase in group activity; this is a phase we call *intensive*.

Here we identify three development phases:

- 1) The short prior phase. In the first week, some affective contact occurs, greetings, clarifications about the case, questions.
- 2) The positive interdependence phase. From the second week until the end of the fourth week, low intensity intervention is the norm in which communication for organizational purposes concerning the case occurs. There appear some contributions offering possible solutions but mainly they ask questions about controversial aspects of the case.
- 3) The decisive interdependence phase. A burst of group activity occurs in the fifth week, four times greater than in the previous phase. Communication is mainly about organization, although there is also a significant increase in investigation proposals, some of which are linked to work organization. There are also contributions regarding information and proposals for solutions. The subsequent decrease in activity is due to the work reaching a conclusion.

**Case A. Progress of interactions**

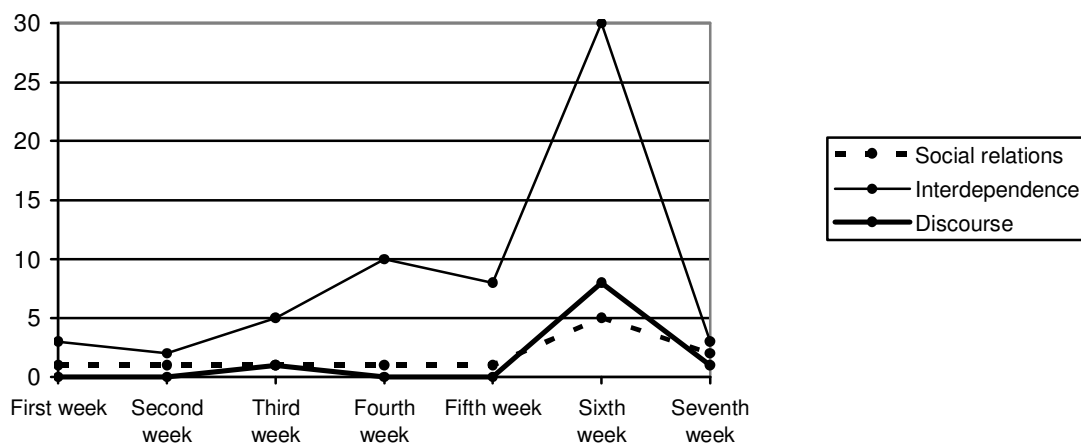


Figure 3

## Network analysis

When we analyse communication density, taking this to mean the proportion between the number of connections between pairs of colleagues and the total number of possible connections within the group, we find its value to be 0.66; as a mean value, we could say that each subject has connected with 66% of the group components. However, 51.06% of participations in the group were not directed to specific working group colleagues but to the forum. As can be seen, the interactions are not all the work of specific colleagues. Almost all participants interact to a similar degree of frequency, although slightly higher levels of interaction are registered for case study coordinators. With this database, we were able to determine that this group showed that interventions were highly compact. So, we concluded that the communication among colleagues is compact but without it concentrating around one or two components, which contributes to dialogue and cooperation among all, as opposed to possible autocratic situations that arise when one member grabs all the attention and clearly takes control of the group.

**Network of interactions (Group A): compact without leadership**

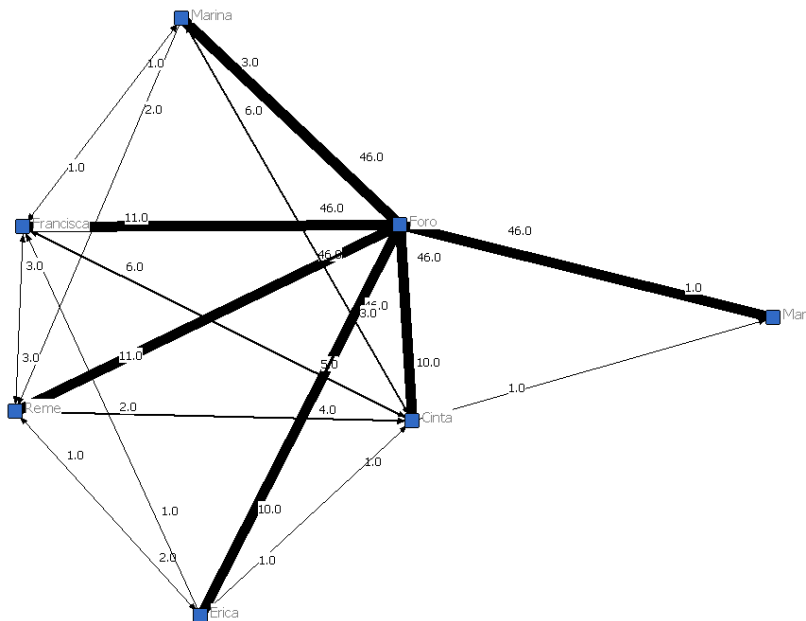


Figure 4

<i>Geodesic distance</i>	<i>Case A</i>
Average distance (among reachable pairs)	1.310
Distance-based cohesion ("Density").	
Range 0 to 1; higher values indicate greater cohesiveness	0.845
Distance-weighted fragmentation ("Breadth")	0.155

The geodesic distance markers show a low mean distance between pairs of reachable subjects (1.310), high levels of cohesion based on the distance between pairs – density – (0.845) and low levels of distance fragmentation (0.155), all of which demonstrates a high degree of group cohesion.

	<i>OutDegree</i>	<i>InDegree</i>	<i>NrmOutD</i>	<i>NrmInDe</i>
	<i>e</i>		<i>eg</i>	<i>g</i>
Forum	276	46	100	16.66
Cinta	24	61	8.69	22.10
Francisca	21	56	7.60	20.29
Reme	17	57	6.15	20.65
Erica	14	48	5.07	17.39
Marina	12	50	4.34	18.11
Mario	1	47	0.36	17.02

*Network Centralization (Outdegree) = 94.626%*

*Network Centralization (Indegree) = 3.744%*

*Network Centralization Index = 25.19%*

The outdegree and indegree markers reveal the central role of many-to-many communication in initiating communication. Nevertheless, the network's centralization

index is low (25.19%). The graph shows that the forum is not always at the centre of network activity, since one of the working group coordinators also acts as a hub. Likewise, the connection among group members is compact, with the exception of one participant who remains on the periphery.

## 5.2. Case B

### Discourse analysis

**Table IV: Pattern of interactions. Case B**

SENDER		INTERACTIONS																			
		RECEIVED										of									
		Psycho-social relations	Positive interdependence					Construction meaning													
Participation	Encouragement	Encouraging apologies...	Clarifications	Questions	Invitations proposals	Communication	Encouraging information	Clarifying information	Providing solutions	Forum	Mª Paz	Gloria	Lucia	Cecilia	Noelia	Isabel	Elena	Gema	Maria	Mª Jesus	
Mª Paz	16	0	0	1	5	1	7	1	0	2	8	X	0	2	6	0	0	0	0	0	0
Gloria	10	0	2	0	1	0	4	1	0	2	8	0	X	0	2	0	0	0	0	0	0
Lucia	24	0	1	2	1	5	10	6	0	3	18	3	0	X	2	0	0	0	1	0	0
Cecilia	40	0	7	3	5	7	17	9	1	7	27	4	0	5	X	1	0	1	1	0	1
Noelia	7	0	0	0	0	0	7	0	0	4	5	0	0	0	2	X	0	0	0	0	0
Isabel	10	0	0	0	2	0	7	0	0	2	5	0	0	2	2	0	X	0	0	1	0
Elena	6	0	0	0	0	0	2	0	0	3	4	0	0	1	1	0	0	X	0	0	0
Gema	8	0	0	1	3	1	2	0	0	3	4	0	0	3	1	0	0	0	X	0	0
María	6	0	0	0	1	0	3	0	0	2	4	0	0	1	1	0	0	0	0	X	0
Mª Jesús	8	0	1	0	1	0	5	0	0	3	5	0	0	2	1	0	0	0	0	0	X
TOTAL	135	0	11	7	19	14	64	17	1	31	88	7	0	16	18	1	0	1	2	1	1
		11		121			49				88	47									

In increasing-progressive interaction, there is a tendency for the interaction to grow. There are two periods of intense interaction either side of a phase of low communication activity. Here we can identify three development phases:

- 1) The pre-organization phase: interaction was low in the first two weeks. The students shared out the tasks, made suggestions for investigation, aired doubts and sent attachments containing information relevant to the task, etc.
- 2) The positive interdependence phase. There was a significant progressive growth in communicative activity in the third and fourth week. There was a rise in interventions concerning organization and contributions towards case solutions. This is still an early phase in the process, so these contributions might be more diagnostic in nature than providing conclusive solutions to the case in question.
- 3) The reflexive phase or individual work. The dip in interaction when the communicative phase is in full swing in the fifth week leads us to think that the students are spending more time working alone on research and proposals. Possible proof of this is the notable increase in personal contributions a week later.
- 4) The decisive interdependence phase. Following the period of reflection and individual work characterised by a decline in interactions, there is a considerable increase in contributions of solutions and organizational activity. Since the practicals are coming to an end, it could be that these contributions consist of decisive measures applicable to the cases. Likewise, it is important to note that contributions offering solutions are the most prevalent, much more than in previous weeks, while the number of interactions related to organization remains the same as in the fourth week.

**Case B. Progress of interactions**

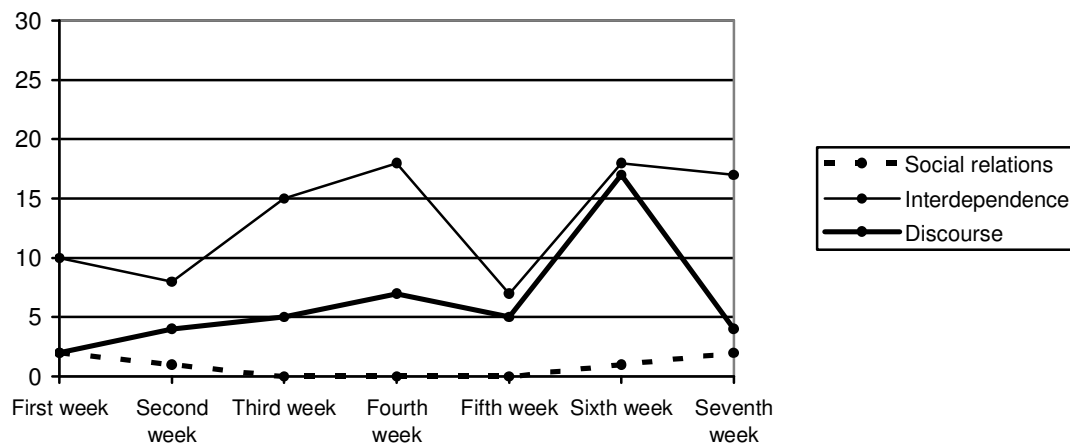


Figure 5

**Analysis of networks**

The density of communication, understood as the proportion between the number of connections between pairs of colleagues (9) and the total number of possible connections within the group (28), stands at 0.32. Taking this as a mean value, each subject has connected with 32% of the members of the group. This study shows that 71.57% of student participation took place in the forum, with very few messages sent directly to a specific colleague. Thus, communication among group members has not been compact.

In conclusion, this is a large group that seems to be split it two. There are those who communicate one-to-one as well as via the forum, and those who only interact with colleagues via the forum. We find compact communication occurring among three colleagues and none among the rest. As a contrast to the lack of compact group communication, a concentration of interaction is found in one of the colleagues who we



understood to be the one who provides dynamism and leadership, even though that person is not group co-ordinator in either of the cases.

**Network of interactions (Group B): semi-open with leadership**

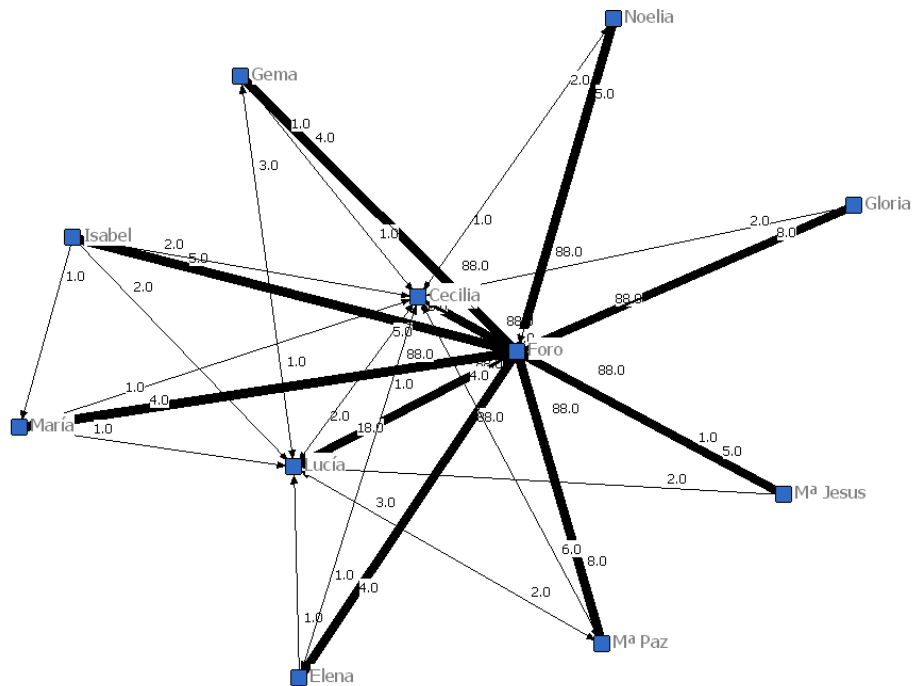


Figure 6

*Case  
B*

*Geodesic distance*

Average distance (among reachable pairs)	1.625
Distance-based cohesion ("Density").	
Range 0 to 1; higher values indicate greater cohesiveness	0.700
Distance-weighted fragmentation ("Breadth")	0.300

The mean of the geodesic distance markers is close to 2 for the distance between pairs of reachable subjects (1.625), with high levels of cohesion based on the distance between pairs – density – (0.700) and moderately low levels of distance fragmentation (0.300), all of which reveals a moderate level of group cohesion.

	<i>OutDegree</i>	<i>InDegree</i>	<i>NrmOutDe</i>	<i>NrmInDeg</i>
	<i>g</i>			
Forum	880	89	100	10.00
Cecilia	40	106	4.54	12.04
Lucía	24	104	2.72	11.81
Mª Paz	16	95	1.81	10.79
Gloria	10	88	1.13	10.00
Isabel	10	88	1.13	10.00
Mª Jesus	8	89	0.90	10.11

Gema	8	90	0.90	10.22
Noelia	7	89	0.79	10.11
Elena	6	89	0.68	10.11
María	6	89	0.68	10.11

---

*Network Centralization (Outdegree) = 98.466%*

*Network Centralization (Indegree) = 1.716%*

*Network Centralization Index = 46.85%*

The outdegree and indegree centrality markers highlight the central role of many-to-many communication at the start of communication. Likewise, the network's centralization index is quite high (46.85%). The graph shows that the forum is at the centre of all network communication.

## **6. Conclusions**

### **6.1. Discourse analysis**

Following the analysis of discourse for cases of virtual collaborative learning based on problem solving in university curricular practicals, we identified two different case types by the following characteristics:

- The cases differ in the level of member participation.
- Each case has a different number of phases.
- The intensity of the interpsychological processes varies in each case and phase.
- Both cases exhibit different types of interpsychological processes in the various stages, however, the processes of knowledge generation increase in importance in the final stages of the process.

The first case consists of a final period in which all participation is concentrated and where the process contains mainly social relations and manifestations of interdependence. In this case, exchanges for knowledge creation (discussing problems and their solutions) have little value.

The second case is determined by a high level of participation that grows in the first weeks, in which processes of social relations and interdependence predominate and where there is a rise in the processes of meaning construction. This is followed by a decline in communication which we believe is due to a period of individual study. Finally, there is a notable increase in communication when the processes of knowledge and meaning construction are as equally important as the processes of positive interdependence.

## **6.2. Analysis of networks**

The analysis of the networks reveals two different types of network identified by density, cohesion, centrality and centralization of many-to-many communication:

- The first is a group with moderate communication density (66%) among its members as well as an acceptable level of commitment among members. However, some fail to integrate within the group for lack of participation and correspondence – not responding to messages received or because the messages they sent were not answered.
- The second type is a large working group with low compact communicative activity with interventions that are mainly directed to the group as a whole, with some intense interaction between colleagues. Nevertheless, there are several cases of students who remain outside the specific exchanges that take place between colleagues.

Cohesion within the Case A group is higher than in the Case B group, although group size needs to be taken into account.

However, the Case B group is more centralized than the Case A group, thus demonstrating the importance of many-to-many communication over one-to-one communication in the Case B group.

In the Case A group, dyadic communication is more frequent, and there is greater cohesion and density.

The data from discourse and social network analysis allows us to hypothesize that many-to-many communication is essential at certain stages in the process of knowledge construction, particularly when cooperation is required for creating meaning. Further research is needed that is more fragmented and associated to the different stages of the process of collaborative learning, enabling a link to be established between those phases in which importance is given to social relations and positive interdependence or to the creation of meaning and the properties of the social network, through markers like those used in this study: density, cohesion and centrality of communications.

## **7. Critical reflection**

The uniqueness of collaborative learning in a context of university curricular practicals mediated by the use of asynchronous communication forums for the development of professional problem-solving competences requires the development of specific models that respond to these particular circumstances.

Analytical models and category systems like those of Henri (1992), Guanawardena, Lowe & Anderson (1997), Garrison & Anderson (2005), or Casanova (2008) are appropriate as a general analysis framework of virtual collaborative learning situations. However, they require specifications and adaptations to provide more precise indicators for each didactic circumstance in natural contexts. The system used in this analysis needs more exact and rigorous development if it wishes to identify valid categories that enable us to accurately describe psychosocial relations, the collaborative construction of

meanings and positive interdependence as defining factors of the processes of collaborative learning in virtual contexts.

Mercer (2001) states that the search for virtual collaborative learning indicators in curricular practical cases based on problem solving that allows us to progress in the knowledge of the appropriate management of these didactic processes demands studies that relate case analysis to the results of learning. Therefore, the aims and methodologies behind these analyses must take into account the presence of categories relative to performance that have a solid base and prior validation.

One important limitation of this experience, if one wishes to extrapolate the results to similar didactic situations, is the low competence shown by the students in the use of the learning platforms and forums, as well as in the cooperative construction of solutions. Familiarization with these tools and a prior simulation of the experience are essential before the real experience begins.

These considerations are also subjected to a rigorous control of the modulating factors of the efficacy of the virtual collaborative learning process, that is, of group composition (Barberá & Badia, 2004), the task characteristics (Rodríguez, 2001; Colombina & Onrubia, 2001), teacher performance and the selection of appropriate didactic techniques (Barkley et al., 2007; Monereo & Durán, 2002), and context (Harasim et al., 2000; García et. al., 2007).

Any collaborative learning process needs to go through a stage in which the working group is constituted socially and given cohesion before work starts on the task and its content. As a result social network analysis, as demonstrated by its traditional use in sociology, is a valid tool for measuring relationship variables within a social context.

Epistemological progress in this field will depend on the validity and reliability of observational tools. Asynchronous writing environments such as forums make this possible via analysis of the records of participation and of the social networks.

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# Teaching cyber journalism: a comparative study in the Journalism courses of Rio Grande do Norte and Mato Grosso do Sul

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## Abstract

This paper presents a comparative study about the research made on teaching cyber journalism in Rio Grande do Norte and Mato Grosso do Sul. The research made in 2007 with the objective of mapping the availability of the disciplines associated to Cyber Journalism in the universities and colleges in the city of Rio Grande do Norte. The text presents the importance in updating the curriculum, especially the tools used in the web. In Mato Grosso do Sul, the research was made in 2008-2009, adopted as research method was the interpretation of analysis data of the curriculum structures in the Journalism courses. The research showed, among other aspects, in both situations that the importance of teaching cyber journalism is very clear for the journalism studies. It was also observed that Cyber journalism is still an area in expansion; there are courses that still haven't, or just included the course in their curriculum structure.

**Key-words:** Cyber Journalism; Teaching Journalism; Journalism; Web Journalism; E-Journalism.

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## **1. Initial Considerations**

Internet evolution is becoming faster and faster and demands new research that will assess the development of Cyber Journalism, as one of the models where journalistic production is processed in the internet and how the academic formation is treated.

In Journalism, the influence of new technologies is noticeable, which must be implemented into the academic formation of its professionals. The knowledge, domain and use of these new techniques require the adequacy in the theoretical/practical teaching in the curriculum structures in the Journalism courses.

Cyber Journalism, been one of the representing words in the practice of modern journalism is still a recent process, especially in our country, which needs to be investigated for better application and knowledge.

## **2. Theoretical Fundaments**

With so many technical evolutions coming from military objectives, the Internet came-up in the United States as a means of safe communication in the form of a network that linked several computers to a central computer. In the 90's, the commercial exploration gained the world as a new market, also causing a new culture (cyber culture) and a new space (cyberspace).

The prefix cyber comes from the word cybernetic, which means:

*“Ciencia o disciplina que estudia los mecanismos automáticos de comunicación y de control o técnica de funcionamiento de las conexiones de los seres vivos y de las máquinas autogobernadas, acepción femenina procedente del griego kybernetike (arte de pilotar o gobernar) y del francés cybernétique, acuñada por Norbet Wiener tras postular, en 1948, a la cibernética como una nueva disciplina científica tras sus investigaciones basadas sobre el cálculo de*

*probabilidades, el análisis y la teoría de la información”* (Gómez y Méndez; 2002, p.2).

With the arrival of the internet in Brazil, around 1983 (way two computers adopted to exchange information), doing journalism had to adapt to the new resources and means offered by the web, simplified denomination of the virtual space, in which the information travel through the internet by the protocol WWW, especially in the flow and speed of information.

MIELNICZUK, in PALACIOS E MACHADO (2003) identify three phases for the history of Journalism in the Internet:

- first phase, called transpositive: the information came as a reproduction from the main editorial parts of printed news for the internet. This first phase can be also called E-journalism, since electronic equipments and resources were used.
- second phase, rhetoric: there were experiments in the attempt of exploring the characteristics offered by the web, the email starts to be used as a possibility of communication between the journalist and the reader, but everything still associated to the printed news. The sections of latest news, “hard news”, arrive as a form of organization. This phase is also called digital Journalism (multimedia), which applies digital technology, in every, and any procedure that implies in the treatment of data in bit-form.
- Third phase, web journalism (current): the modification starts with the arrival of corporate as well as editorial initiatives destined for the internet, enabling the faster transmission of sound and images. The journalistic sites extrapolate the idea of a simple Web version of a printed newspaper, and start to explore the potentialities offered by the web, such as the use of hypertext not only as a resource for organizing information, but also as a possibility of journalistic narrative of facts. The news have constant updates and they start to be produced with resources like texts, sounds, videos, infographics and hyperlinks, all in one so that the reader can choose their course of reading. For some authors, like

SOUSA (2006), also called online Journalism, digital or cyber Journalism, but with differences, “the online journalism consists in any type of journalism practiced on the internet while the term digital journalism refers to every technology that works with digits, the term web journalism refers only to the journalism practiced on the internet; and the term cyber journalism is related to cybernetics”.

In this study, the term cyber journalism was adopted for been the one that appears the most in the European studies in the area, and for been best fitted at the moment since it has the aid of technological possibilities offered by cybernetics, and applies the cyberspace to investigate, produce and specially divulge journalistic contents.

PEREIRA (2006) identifies and characterizes two specificities of cyber journalism: the language of the internet and journalism on the internet. The language is mainly regarding hypertextuality, enabling infinite connections, in which the information is linked in a multi-linear form. Journalism on the internet is characterized by the instantaneity, multi-mediation, hypertextuality and customization.

For BERTOCCHI (2006) the hypertextuality, multimedial and interactivity are potentials that the internet provides journalism, or triple demand, in which according to Salaverria (2005), the hypertextuality is the capacity to interconnect several digital texts among each other. The multimedial is the same message in different elements, such as: text, image and video. The interactivity is the possibility that the user has to interact with the information.

### **3. Blogs and Sites in teaching journalism**

Blogs, as well as, emails, discussion forums, chats and sites are tools available on the internet as a resource of a much wider use. Their use can collaborate to insert the students in this new mean of journalistic production, providing the development of digital competencies required from a Journalism professional.

The blogs and sites are treated as means of communication that help in the teaching-learning between teacher and student, besides been a mean that instigate research and style perfecting.

The practice of Cyber Journalism in the classroom helps the student in their writing routine that is why the teaching institutions need to adapt to this mean with enough infra-structure to simulate an environment of an online newsroom. According to Melo (1986) “the implementation of experimental laboratories and equipments reduce the distancing from reality and provides the realization of projects that assimilate / confront the conventional standards of industrial communication”.

The students in the classroom must write stories as if they were writing for journalistic websites, only this way, there will be an approximation with journalistic reality. The news that the students write now stops been a mere exercise and becomes publishable news, it is a first professional experience.

Despite the ease to write a news piece nowadays, the students need a technical and theoretical preparation that the digital means require. According to MACHADO and PALÁCIOS (2007) to make the new journalism, enabled by the Internet, you have to know and dominate the principles, rules and practices of the old journalism. Some skills that can be cited as examples of the cyber journalist’s knowledge is: the use of HTML, flash, notions of web usability, Internet essay, use of content administration systems, creation of multimedia products, audio and video editing, etc.

The predominance of blogs and sites raise an important data regarding the need for the production of projects that will bring new forms of communicating. That is why, for MELO (1986) the laboratorial vehicle must be allied to systematized production, like in the professional day-to-day, and the ludic production that enables the experimentation and discovery of new practices. Therefore, teaching and research join forces strengthening the exchange of experiences between professors and students.

#### **4. Inclusion of cyber journalism in curriculum structures**

With the advances of the Internet and the arrival of Cyber Journalism we must question the journalist's formation and the type of teaching offered by Universities/Colleges that must update their curriculum matrixes to the new demands imposed by this technical order. For some Universities, the concern is still the formation of communications experts and not a specific formation of a journalist. Therefore, it is expected from a recently graduated student of Journalism a "multimedia" formation, new skills and competencies to work in cyber journalism.

*Por eso, uno de los cambios principales consistirá probablemente en mudar del modelo tradicional de enseñanza, consistente en formar a los futuros periodistas en destrezas profesionales dirigidas a enfrentar la escasez de información, hacia otro modelo en el que se forme a los periodistas para enfrentarse a la superabundancia de la información. Con Internet, el problema ya no es encontrar información, sino distinguir entre lo significativo de lo irrelevante. (SALAVERRIA; 2005, p.3)*

According to RIBAS and PALÁCIOS (2007), adequacies must be made in the teaching-learning process focusing on the formation of these new Journalism professionals.

In most cases, the digital appears in the curriculum plans under a final discipline of the course (Digital Journalism, Multimedia Communication, etc). However, reality shows that there are not non-digital means of communication anymore: currently, communication professional work immersed in an environment of strong technological content, which influences the entire productive routine and not only the final product (press, radio, television, etc). In the same manner, the digital content must be distributed in the study plans of the communication courses, instead of been relegated to the last years of undergraduate school. (SCOLARI, 2006, p.7)



Higher learning institutions have the social commitment of generating new knowledge and qualifying the student for the current job market, which requires skills in Cyber Journalism, and especially offer subsidies for a conception capable of providing a true theoretical/practical teaching for the students, but this does not always happen. In some universities, the curricular matrixes are still not adapted to this technological evolution.

To DINES (1986), university teaching of journalism is important:

“... because it is in the classroom, exercising theory and evaluating practice that the student can see further. The reflection does not need to be converted into pompous doctrines, but it can be converted into concepts, and especially, ideals. There isn't a better place to make practice using theory than in university. (...) The classroom, conveniently and necessarily equipped – in material terms like humans – it is irreplaceable to merge ethics with technique, ideal with the real (...). We already noticed that journalism for been an essentially intellectual activity, it is assumed that in practice there must be a series of moral and ethical values. It is known that the process of informing is a forming process, therefore, the journalist, in a last analysis is an educator”. (DINES 1986, p. 22)

Therefore, it is worth mentioning that the professors should be aware of these transformations and formats, which will possibly be imposed into society, professionals and teaching journalism, so that the professionals coming from the courses can meet the demands of this new model of society.

It is necessary to alter the curriculum structure of a Journalism course to use the new potentialities of the Internet in the teaching and learning areas. To FIDALGO (2001) the school contents were kept, the students' access to scientific texts improved, and on the other hand, a better follow-up of the taught class was enabled, by the students and the way they assimilate the class, by the teachers.

To BERTOCCHI (2006) the academia must prepare the Journalism students for this new work market and society requirement, despite been a field of research and teaching that is in search for some answers. To re-think this new profile of the journalism professional “requires disposition in part of academia and the market that is always in the search to break eventual barriers, resistance; and think with a systemic and long term view, in order to embrace the continuously mutation of the environment”.

What happens nowadays, some Institutions that teach Journalism continue to reproduce the classic journalism, and forget the exploration of new technologies, like interactivity and multimedial. Sometimes, the lack of infra-structure gets in the way of the collaboration in perfecting and understanding the discipline, as in the case of some Federal Universities that added to that do not have the resources in the Journalism undergraduate courses for a discipline turned to Cyber Journalism.

Therefore, according to TORNERO in the prologue of CALVO (2007, 8), make the most of the new potentialities of web journalism (online) to increase and improve the quantity and quality of the information we process and transmit socially. And at the same time, use these potentialities to develop a more democratic and collaborative public sphere. We can also mention TORNERO (2007, 9) that the relation between cyberspace and journalism, there is a set of innovations and transformations that affect integrally all the dimensions of journalistic communication and that will end up changing its nature.

TORNERO in this same text, still makes a discouraging assessment, saying that the combined situation is disheartening, very few lessons and disciplines dedicate to cyber journalism, and when they do, in reality, they are optional courses that can be easily “forgotten” in the teaching programs of future journalists. This evaluation corresponds to the reality in many courses in Brazil, such as in the case of UFRN, after ceasing offering the discipline in 2008.

Another question posed frequently and also mentioned by CALVO (2007, 26) is about the digital literacy. Although this aspect represents to be irrelevant today, in the context of quantity of journalism students, is always present and in some moments, in some

groups, in a more relevant way, reaching from 30% to 40% of the group. According to the author, it is important to mention that digital literacy is not only about the basic domain of the computer, like opening and closing internet pages or a text editor, but it is also about using tools of digital technology and communication and websites to access, manage, integrate, create, analyze information to function in the society of knowledge. (TORNERO, 2004 apud CALVO, 2007, 29).

CALVO goes further, affirms that the cyber journalist must acquire digital literacy. Quoting the concept of KELLNER (2004, 38) that cites: “the true digital literacy of computers implies not only in technical knowledge and skills, but also a refined capacity in writing, reading, investigating and communicating. Supposedly we must intensify their abilities to access, analyze, interpret, process and store critically multimedia and also printed materials”. CALVO (2007, 32) highlights that the “cyber journalistic literacy, conveyed as an increase of the “digital literacy”, answers to a formation plan comprised of a double dimension: instrumental or pragmatic, for a humanistic or cultural view, for another”.

Like in the evaluations on teaching cyber journalism in Brazil, CALVO (2007, 34) reports that the inclusion of cyber journalism in the study plans in the Spanish Journalism courses are also in their initial phases of development. The “youth” of cyber journalism and the lack of a common theoretical reference mark contribute to that. According to the author, it can be affirmed that among the different Spanish universities offering journalism courses, there are important differences on the teaching of journalism on the internet. From the universities that do not have any disciplines related to the issue, to courses with several offers in different levels and shapes. It is still highlighted that cyber journalism requires a series of modifications that would update the study plans with the objective of incorporating the formative demands of this new way of making journalism. According to CALVO (2007, 35), “due to a singular scenario in which the messages are broadcasted, the online journalist require a specific formation”. Therefore, according to the author’s understanding, the journalism schools must form a professional characterized by knowing the informative structure; produce information in real time; take on several roles; dominate the web as source of

information; generate information; cyber journalistic writing – are professionals capable of generating informative messages adapted to the characteristics of the Web, and according to the production routines of the online mediums; using software tools; creative; team player; explore the interaction and continuous recycling of their formation.

## **5. Method**

It is a qualitative/descriptive study, essential for the investigation of the Cyber Journalism issue and reaching the proposed objectives. For such, the research comprised the following stages: bibliographic revision; analysis of the curriculum structures in the Journalism courses in Rio Grande do Norte: UFRN, UnP and UERN and in Mato Grosso do Sul: UCDB, Estácio de Sá, UFMS, Uniderp and Unigran. We analyzed the syllabus that were closer to cyber journalism; a total of 188 students attending universities in Rio Grande do Norte answered the pre-formatted and private questionnaires. Of these, 69% were from UFRN, 21 % from UERN and 10% from UNP; interview with the application of the questionnaire to students and professors; in Mato Grosso do Sul, the sample was of 100 students, 20 from each institution, with students from the 3rd and 4th years; as for the professors, the also private questionnaires, were applied to the ones that taught the referenced discipline, that is, the one related to the issue cyber journalism, with five teachers; and lastly data analysis and interpretation.

## **6. Results and discussion**

In Rio Grande do Norte, the interviewed students were asked to what means did they use the Internet, 84% answered that they used it to do academic activities. Firstly, we point out the incentive the universities give professors so that they use the internet and its potentialities. This aspect should be a hook so that the professors would use the internet more to their favor and aligning practice and theory.

Another important data is the familiarity that the students said they have with the internet as a mean of communication leaving behind vehicles until then consecrated like TV, radio and printed media. One of the factors that contribute for this familiarization is the media convergence, where in the same system the user can find audio, video and text devices.

Despite the importance given to the internet by the students the universities still place it as a second plain issue. From the three universities analyzed, only UNP offers the discipline of cyber journalism as mandatory, UFRN and UERN offer it as optional. This premise explain why the 28% of students heard do not feel pressured by technological advances, since the students do not have access to information regarding the development of these new technologies, the demands of the market in relation to this issue, the aptitudes that this new mean of communication require that the opportunities offered by this new mean, they do not have the knowledge of what the perspective of cyber journalism and its potentialities mean.

In the academic medium there are still some differences in relation to the accessibility of computers and their technologies. The technological area has a better laboratory structure compared to, for example, the humanities. Allies to this many journalism professionals diverge and refute on the use of new technologies, with special mention to cyber journalism and the real benefits it can bring to teaching. The professors at many times also show a lack of interest in relation to the subject due to little formation and qualification in new technologies, added to that the economic differences found among universities, for not having resources, they cannot provide their professionals the needed qualification, nor offer to the students a good basic teaching structure.

On the use of blogs, discussed throughout the project as an option to use the internet in the formation of undergraduate students in communication, only 52 students commented having a virtual journal. For those, most of them answered using them for personal means. This is still a wide alterantive to be explored besides offering access facility, like free services.

Another difficulty found is the distancing between the pedagogical process and the execution of the in-class journalistic activities. According to PEREIRA (2004, 45) the dimensions of a pedagogical project for teaching journalism does not have to contemplate only the process of construction of the information, which involves only analogue theories to the journalistic genres. The author contemplates saying that:

“in teaching journalism there is a tendency to reduce the practices of pedagogical interaction to the production of information. This reflects two problems in the conduction of the political-pedagogical project in the classroom: 1) the epistemological rupture among the laboratorial disciplines; 2) the adoption of the writing manuals as a paradigm for the construction of the journalistic information”. (PEREIRA, 2004, p. 45)

All of the researched institutions have computer labs available for the students. This is an important step in the digitalization of teaching in universities, in which they have a double duty of forming qualified professionals and educate towards the exercise of full citizenship.

What can be observed with the research project is that in Rio Grande do Norte, UFRN, UERN and UNP fit the model proposed by MACHADO (2007, 16) on the models of incorporating digital contents. UFRN and UERN are institutions of traditionalist profiles that started to offer students the inclusion of theoretical and/or practical disciplines over digital themes. While UNP is a part of the new institutions in which the digital contents appear constantly in the teaching plans.

In Mato Grosso do Sul, of the three institutions that posted their syllabus in the website, UCDB, Estácio and Unigran the term used for the terminology of the discipline was the same, Online Journalism, with the exception of UCDB that used Communication of Web. UFMS is the only institution that does not present a discipline related to Cyber Journalism, only one called Computers in Communication. Regarding the distribution of the disciplines in the courses, 50% of the disciplines are given in the 3<sup>rd</sup> year, 25% in

the 2<sup>nd</sup> and the other 25% in the 4<sup>th</sup> year. This demonstrates that the students only have contact with the discipline after basic formation.

According to the interviews with the students, the focus of the disciplines was given differently. Most of them, 60% first theory then practice: Uniderp, UCDB and Unigran, while 20% only practice, at UFMS.

Analysis of the disciplines syllabus and the questionnaires applied to the students, the theory of Cyber Journalism given in class can be divided into thematic areas, made by readings, researches or assignments, with the areas like: Form analogical communication to digital; Internet History (Web); Introduction to On-line Journalism (Web, Internet or Cyberspace); Use of tools: text, image and sound edition, etc; Hypertextuality, interactivity, multimedial, memory and credibility; Online Journalism Vs. Printed Journalism; New Market technologies and Tendencies; Regional Reality of Online Journalism (Web); Legislation and Ethics in the web.

The laboratorial process of managing the disciplines was made by: Preparation of agendas; Reports and News Script; Production of the News Platform online. The news or reports produced by the students were posted in sites and blogs made available by the professor. The objective of the disciplines, in practice, was to simulate a newsroom environment, with agenda meetings, division between writers, reporters, photographers, etc; enabling the students' contact with the cyber journalistic universe during the undergraduate course.

All of the professors answered that they develop the disciplines theoretically first, then practice. The theory is made by means of reading texts, seminars, researches, debates about the issues raised, among others. The practice is developed by producing stories for the websites made available by the professors or the Institutions. At Uniderp, the stories are produced for the Laboratorial-Newspaper "Unifolha Online" (<http://www.unifolha.com.br/>), at UCDB for the website "Jornal Em Foco" Online ([www.jornalemfoco.com.br/](http://www.jornalemfoco.com.br/)). At Estácio, according to the professor, the stories are

made available to a bog of the discipline, not mentioned by the professor in the research. At UFMS, the stories produced go to the website of the School of Practice (<http://www.webjornalismo.jor.br/>) available by the professor of the discipline.

Among the professors, 60% develop some kind of project focusing on cyber journalism, and 40% do not:

- UFMS: Teaching projects on cyber journalism in Brazil, Extension Project at School of Practice (laboratorial newspaper), research projects on journalistic convergence and approximations/distancing of the newsrooms of the printed newspaper and cyber journal;
- UCDB: Extension project “Jornal Em Foco” Online (laboratorial newspaper);
- Uniderp: Extension project “Unifolha” Online (laboratorial newspaper);
- Estácio: Extension course on audio, video editing and animation in flash.

## **7. Final Considerations**

The possibilities provided by the internet are still little explored by the universities. It is observed in the institutions unbalance between new teaching methodologies and the incorporation of new technologies. The universities along with the professors need to find themselves in a process of constant updating to form new qualified professionals capable of meeting the market demands.

UFRN, according to the model described by MACHADO (2007, 16), fit into the updated courses, in which they have a traditional formation profile and they start to make available in their curriculum syllabus theoretical or practical disciplines on digital issues. The discipline “Online Journalism” provided the students the experience to work under real circumstances, to live like a newsroom, to deliver the texts in the established deadline and prepare the following piece. There is no need to alter the curriculum



structure of a Journalism course to use the new potentialities of the Internet in the teaching and learning areas, for that the universities need to use ideas adopted by other institutions. As examples, we can name the creation of sites, development of blogs etc. The stimulation given to the students so that they can write their stories and publish, make them reflect about their roles as opinion makers and their importance in the market.

The model plan for journalism studies made by UNESCO and published in 2007 reports regarding cyber journalism,

*Los estudiantes adquirirán conocimientos sobre la evolución reciente de Internet como instrumento y medio periodísticos. Aprenderán el modo en que el relato periodístico puede verse transformado por la tecnología, cómo pueden utilizar los periodistas la tecnología para realizar mejor su labor y el grado en que las relaciones con el público pueden transformarse en una mayor interacción con los ciudadanos gracias a Internet y otros medios en red. Analizarán problemas éticos que pueden surgir con las nuevas tecnologías y la forma en que la tecnología puede modificar la estructura de las empresas y del sector de la comunicación y de la información. Aprenderán a escribir para sitios en línea y multimedia, lo que comprende, entre otros aspectos, la organización de enlaces y la utilización de bases de datos, la publicación de noticias en sitios Web y la actualización y la continuación de las mismas a medida que se desarrollan los acontecimientos. Adquirirán conocimientos sobre cómo crear páginas para sitios Web, cargarlas en un servidor y utilizar una cámara digital. Experimentarán con tecnología de audio y de vídeo a fin de dotar de interactividad a sus reportajes. Reflexionarán acerca de las consecuencias que se derivan de las tecnologías móviles.*

*Y aprenderán a adaptarse a las nuevas tecnologías.* (UNESCO, 2007, 27)

These indications clearly show the perspectives for teaching cyber journalism and its complexity, given that the students must achieve cyber journalistic literacy, as previously pointed out by CALVO (2007, 30), referring to the domain of languages, software, hardware and extraordinary knowledge of humanities.

New technologies of information and communication (NTIC), cyber journalism and also the academic formation of Journalism professionals are issues that deserve attention in theoretical investigation. The curriculum structures must be updated to the transformations society goes through.

The Universities/Colleges, as well as Journalism professors need to be aware of these transformations in de mediums and teaching Journalism so that the professionals coming from these courses can meet the demands of this new model of society.

In relation to the disciplines tied to Cyber Journalism, we can consider the following issues:

- regarding the inclusion of Cyber Journalism: many authors like Tejedor (2006) and Bertocchi (2006) affirm that it is not possible to establish characteristics and applications with precision in Cyber Journalism, since it is an area in expansion. Therefore, there are schools that have just included in their curriculum structure, disciplines related to Cyber Journalism; and others, for example UFMS, do not have a specific discipline in the area.
- Regarding the consensus in terminology (nomenclature): according to the analysis of the syllabus in the disciplines it is possible to affirm that there is no consensus in the correct terminology on the issue, despite the term Cyber Journalism been the one used the most abroad.
- Regarding the inclusion of Cyber Journalism: for inclusion or improvement of the discipline focused on Cyber Journalism there is still advances, project

derivatives, investigations and experience in the area, so the necessities that still exist in the Institutions are met.

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# **Experiences of communication and development about environment: Case-study and life stories of Colombian Andean Region**

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Andrea Sotelo Carreño <sup>46</sup>.

The book is based on the research entitled 'Experiences of communication and development about environment'. Colombian Andean Region which was developed in the years 2009 and 2010 under and inter- institutional agreement between the Open and Distance National University, the University Corporation Minuto de Dios and Santo Tomas University whose emphasis on their social communication programs are oriented to social problem: peace (USTA), social –communitarian problem (UNAD) and participation and citizenship (Uniminuto). The three institutions possess a solid interest in studying the way how communication is fulfilling its role as manager and driver of social changes processes, that is, improving of life conditions from communities causing their own social transformations.

The research work is oriented to answer the question about: How is the relationship communication-development understood from experiences implemented by communities looking for the management and social transformation of problems related to Colombian Andean Region environment?

The proposal was thought from two processes involving, both quantitative and qualitative methodologies, and the additional reflection between an empirical analytical

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process and a historical hermeneutic process.

At an early stage, experiences are mapped in order to identify which, how much and where they are located into the Andean Region; finally, 250 experiences are detected of which 112 responded to a survey designed by the research team.

At a second stage, 10 of those experiences were selected and managed as case-study, each with meant and emotional life stories for leaders.

1. Agrosolidaria Confederation Colombia, Central made in Tibasosa (Boyacá).
2. Sibaté Twelve thousand years of history, Sibaté (Cundinamarca).
3. Community radio station Montenegro st, Montenegro (Quindío).
4. Communication school Minga del Sol , Neiva (Huila).
5. Foundation science house, Guadalajara of Buga (Valle).
6. Magazine environmental Agenda, Raadio Station La Ponderosa, Pitalito (Huila).
7. Blue planet and life foundation, Popayan and neighboring municipalities (Cauca).
8. Community radio station "Nuestra Señora de las Mercedes", Mutiscua (Norte de Santander).
9. Community radio station San Vicente st, San Vicente de Chucurí (Santander).
10. Ecological and Cultural Corporation, Country City, San Antonio de Prado, Medellín (Antioquia).

The document travels through the concepts driven by experiences about communication, development and environment; by the way these concepts are interrelated; besides, through its actors, context in which they are developed, environmental issues affecting them, media and alternative, which are used to give visibility to their work, incidence on the public sphere and its impact on the region among others.

From the conclusions drawn by the authors, it is important to emphasize that communication is a driving force of human relationships, convivence and social community organization for the communities integrating the experiences, besides it is useful because it allows the transmission of knowledge, the formation of citizen, the construction of social web and it contributes to enhance and strengthen the process are being developed by the communities in order to improve their quality of live and solve their problematic.

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