

37

QUADERNS DEL CAC

The internet, on the loose?



Consell
de l'Audiovisual
de Catalunya

2011

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Quaderns del CAC is a half-yearly electronic journal published in June and December in Catalan, Spanish and English. Paper edition was published from issue 1 (any 1998) to issue 35 (December 2010).

The journal wants to motivate critical analysis and debate on culture and media. Edited by the Catalan Audiovisual Council, is intended as a platform for approaching to the field of audiovisual media and culture from multidisciplinary perspectives and it gives a special attention to the European and international research framework.

The issues opens with the invited article, followed by the monographic section that analyzes a subject from different approaches. The section "Articles" consists of original and unpublished articles accepted after their submission to a double-blind peer review process, after an initial assessment of quality by the Editorial board. The journal undertakes to respond the authors of the positive or negative result of the process in less than a month and a half after the submission of the article.

The manuscript submission guidelines for articles and book reviews are at the final pages of every issue.

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Translation: Tracy Byrne

Page Layout: D6A

Legal Deposit: B.21287-2011 (english electronic version)

ISSN (paper): 1138-9761 / ISSN (online): 2014-2242

<http://www.cac.cat>

mail: quadernsdelcac@gencat.cat

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Introduction

The impact of the internet has radically affected all spheres of public and private life and especially the processes of audiovisual communication. Consequently, issues related to managing, deploying, regulating and controlling this powerful universal platform are arousing growing interest and debate on the part of various national and international bodies. Entitled “The internet, on the loose?”, this monograph of issue 37 [vol. XIV(2)] of *Quaderns del CAC* aims to provide its own modest contribution to reflect on the current situation of the internet and help to analyse and evaluate the new problems posed by its regulation and governance.

The guest author in this edition, the prestigious lawyer and professor from the Université de Montréal **Pierre Trudel**, looks at the regulation of the new media in his article “Internet risks management and paradigm shifts in the regulation of the audiovisual industry”. In his opinion, changes from the digital to the network era new risk factors need to be identified in the sense of Ulrich Beck, as well as adjusting new legislation to the requirements of public policies for cyberspace services and audiovisual programming.

The monograph starts with an article by **Antoni Elias** entitled “The internet and its governance”, exploring the problems of internet governance from three points of view: technical, economic and social, as well as proposing the supervision of the system by means of the shared interests of its three main players: states, civil society and the market. **Josep Maria Carbonell** proposes and argues for ten principles inspired by the social-liberal model, under the title “For a regulation of multimedia communication networks that serves the public interest: ten principles”. **Pierre-François Docquir** tackles “The challenges of net neutrality”, believing that this principle must be established as a reaction against discriminatory treatment on the most efficient communication platform and proposing that its implementation should be monitored. For their part, **Artemi Rallo** and **Ricard Martínez** deal with the normative requirements of media firms setting up a social network in “Protecting personal data and social networks: media obligations”. In “Wikileaks, a tool”, **Xavier Batalla** examines this phenomenon of mass leaks via the internet and classifies this as a new transgression that, for journalism and diplomacy, has turned a formerly artisanal practice into a mass produced one. In his article entitled “The concept of net neutrality and the tension between public regulation and the private self-regulation of networks”, **Joan Barata** questions some of the common points regarding net neutrality, asks about its legal nature and proposes lines of discussion to regulate it. **Raquel Xalabarder** focuses her article, entitled “Intellectual property in the digital world: an extinct monopoly?”, on how digital technology makes traditional concepts such as author, work or the exploitation of rights problematic and examines currently debated issues in P2P systems, private copying and *creative commons* licences. Finally, **Carles Alonso** reviews the general scenario of internet regulation in “Governing the internet, towards common regulation”, identifying the key elements in the current debate with a view to achieving a free, equal and shared internet.

In the “Articles” section, this edition includes the following contributions: **Elena Añaños** presents the findings of a study on the visual attention of young and older people regarding unconventional advertising formats that appear on television programmes (“Visual impact and eye fixation of unconventional advertising (UCA) on television among young people and the elderly”). **Maria Gutiérrez**, **Elisabet Garcia** and **Manel Mateu**, based on a study carried out on the local media in five Catalan municipalities, draw critical conclusions regarding significant deficiencies in the coverage of immigrant groups (“The perception of groups of foreigners on local radio and television”). **Francesc Alías**, **Joan Claudi Socoró** and **Ignasi Iriondo** review the degree of implementation of voice synthesis systems in Catalonia and propose lines of research into their viability in the creation of audiovisual productions (“Applying automatic speech generation techniques to audiovisual production”). Finally, **David Fernández-Quijada** and **Federica Alborch** end the section with a field study in which they argue that local Catalan television has little capacity to act as a pull for the audiovisual industry and that new strategies of action need to be undertaken (“Audiovisual clusters and public local television: the end of the mirage”).

Josep Gifreu
Director

Internet risks management and paradigm shifts in the regulation of the audiovisual industry

PIERRE TRUDEL

*Professor L.R. Wilson Chair on the Law of Information technology and Electronic Commerce
Public Law Research Center. Université de Montréal*

pierre.trudel@umontreal.ca

Abstract

In all countries, audiovisual dissemination is subject to a regulatory framework that is stricter than that governing other media. The shift of much radio and television broadcasting to the internet necessarily involves questions about the paradigms we employ to think about audiovisual regulations. The context in which audiovisual regulations are now located is marked by the breakdown of a number of constants associated with modernity. In postmodernity, risk looks like a major component of the deliberative processes contributing to the production of law. In order to be legitimate, regulations have to be presented as designed to manage risk. Audiovisual regulation is thus portrayed as a risk management process. States and other public authorities legitimise regulations governing audiovisual broadcasting on the internet by invoking the risks posed by the default rules and norms of the cyberspace environment to the values that such authorities wish to protect. However, the very nature of the internet means that we cannot assume national regulations will indeed be complied with by all concerned. This forces us to design regulations in such a way that they generate sufficient perception of risk in all those targeted. This is a condition for regulatory effectiveness in cyberspace.

Keywords

Regulation, internet, risk management, audiovisual.

Resum

A tots els països, la difusió audiovisual està subjecta a un marc regulador més estricte que el que regeix altres mitjans. La transició a internet d'una gran part de la difusió radiofònica i televisiva implica, necessàriament, qüestionar-se respecte dels paradigmes que utilitzem per reflexionar sobre les regulacions audiovisuals. El context en què es troben actualment les regulacions audiovisuals està marcat per la ruptura d'un seguit de constants associades amb la modernitat. En la postmodernitat, el risc és vist com un component important dels processos de deliberació que contribueix a promulgar normatives. La reglamentació, per ser legítima, s'ha de dissenyar de manera que pugui gestionar el risc. La regulació audiovisual es descriu, per tant, com un procés de gestió de riscos. Els estats i altres autoritats públiques legitimen les normatives que regeixen la difusió audiovisual a internet, apel·lant als riscos que comporta la manca de reglamentació del ciberespai per als valors que les autoritats esmentades volen protegir. Tanmateix, la naturalesa mateixa d'internet impedeix assumir que tots els interessats acataran, de fet, les regulacions nacionals. Això ens obliga a dissenyar reglaments que assegurin que generen prou percepció de risc a tothom a qui s'adrecen. Aquesta és la condició indispensable per a l'efectivitat de les regulacions al ciberespai.

Paraules clau

Reglament, internet, gestió del risc, audiovisual.

A number of phenomena associated with the information society contribute to changing stakeholder and decision-maker ideas about the realities that have to be faced through state intervention. In a sector as strongly marked by change as the audiovisual world, it is important to examine transformations in reasons for rules and the conditions in which these are expressed and made effective.

Changes in the conditions in which information is produced and circulated have an impact on the ideas that provide the framework for thinking about regulations. These changes affect perceptions of and points of view on what justifies state intervention, what is within its scope and what seems to es-

cape it. Melanie J. Mortensen points out that "Technological convergence, privatization and increased competition have led to new challenges for communications law in the last decade" (Mortensen 2003). She highlights the role of the changes that have occurred in the media environment and that have fuelled challenges to the foundations of regulations. In many respects, knowing the legal aspects of a phenomenon is knowing the reasons that lead to the adoption of rules; in other words, reasons that make it "rational" to adopt rules to provide a framework for a set of activities. The strong trend towards providing audiovisual media over the internet supposes a major shift in the founding paradigms of audiovisual regulations.

Changes in the way information is produced and circulated modify the ideas in terms of which we think about regulations. These changes appear in different ways in different legal systems but they always affect the perceptions and points of view concerning what justifies legal intervention, what is within the scope of such intervention, and what seems to escape it. For example, the field in which audiovisual regulations apply seems to be disintegrating. Newspapers, television shows, films, telephone calls, computer data, commercial services, purchases, banking and all other forms of information and communication can now be in a single format: digital bites. The internet is the embodiment of media environment convergence. The idea of convergence echoes the growing connections between the broadcasting, newspaper, telecommunications and computer industries.

Traditionally, radio and television regulation was based on postulates such as the public and scarce nature of radio waves, the intrusiveness of broadcasting media and the need to remedy the deficiencies of media that had been left unregulated (Hoffman-Riem 1996, Van Loon 2004, Trudel and Abran 1993-95). More recently, in particular in the world of telecommunications, there has been focus on universal access and we always hear about the need to regulate content considered offensive in light of the values prevailing in a given societal context (Botein, Adamski 2005).

Other classic arguments focus on market malfunctions that regulation is intended to remedy. This justifies rules against concentration of ownership, rules promoting pluralism and diversity, including in terms of both content and sources of information so as to avoid one-sidedness, and rules that protect and promote minority cultures. There are also attempts to prevent a small number of entities from exercising control over the formation of public opinion, as well as measures designed to protect public broadcasting.

Other arguments place the accent on the need to maintain net neutrality (Lemley, Lessig 2001), in particular by seeking measures to prevent evils that seem to cause indisputable harm, such as child pornography, practices that violate privacy and dangers to children (Waltermann and Machill 2000). While the reasons for the regulations seem to retain a lot of legitimacy, the internet is an environment in which a multitude of decision-making centres have the ability to assess the respective weights that should be given to each of these reasons.

On the internet, it becomes difficult to maintain an approach that postulates a broadcaster with control over what is made available to users. Users can choose what they consume, when they will do so and under what conditions. Users now find it relatively easy to be programmers themselves by broadcasting and interacting with content online. Faced with these changes, we cannot help but consider the hypothesis of a radical paradigm shift: the ideas that form the very foundation of audiovisual regulations have undergone major mutations. Taking these changes into account and drawing the consequences is a condition for being able to maintain effective regulatory activity that can deliver the balances that are still pertinent.

Arguments related to technological developments and the resulting changes in uses and practices are among the most common justifications for new approaches to regulation. Indeed, some authors do not hesitate to assert that "communications policy inevitably will become a mere subset of internet policy" (Werbach 2002, 37). A broad set of rules and norms provides the framework within which the internet operates. As soon as we agree to see normativeness in a broader sense by not limiting ourselves to national legislation, we realize that cyberspace is regulated by many norms and rules of conduct ranging from the strictest to the most flexible. In cyberspace, active normativeness, namely, rules and norms that are actually applied, operates in a network and is imposed insofar as it generates enough risk to incite people to comply with it. Audiovisual regulations applied to the internet form part of this diverse normativeness.

The postmodern context

Information technologies amplify the characteristic changes in today's law. The dynamics of globalization tend to affect states' capacity to exercise complete control over many phenomena. As information society has become reality, states can no longer claim to control flows of information in environments that apparently have undetermined limits and are deployed in networks.

The passage from modern to postmodern law makes it possible to grasp the changes that result from developments in the socio-technological context and, above all, the impact they may have on law, its role, its form and the conditions in which it operates. Marie-Andrée Bertrand writes:

Authors who have devoted much of their work to analysing advanced societies and their culture consider that ours resembles no other, and especially that it is clearly different from the preceding one. We have come out of a first "modernity" and entered into what some call advanced modernity (high modernity, late modernity) or hypermodernity or second modernity. Others speak instead of postmodernity (Bertrand 1995, 10).

From this perspective, Chevallier does not hesitate to speak of a crisis in state architecture (Chevallier 2003, 21). The state model inherited from modernity is in trouble in postmodern societies. The state's role is being re-assessed, and the crisis of the welfare state seems emblematic of this trend. According to Jacques Chevallier, this crisis developed at the level of ideas: beginning in the 1970s, there was an erosion of the system of ideas on which the state had built its legitimacy. The theme of government inefficiency involves a number of challenges to a model that is increasingly portrayed as interventionist, upsetting market mechanisms and limiting initiative. According to Chevallier, "the impossibility for states to control the circulation of these information flows cannot avoid undermining not only their traditional principles of organization, based on hierarchy and centralization, but also the very foundations of their institution" (Chevallier 2003, 31).

Manuel Castells points out that the territorial system is being replaced by a world organization based on flows of goods, information and capital that ignores borders (Sciences Humaines 2011, 76). It is likely that the changes that are occurring in law do not result exclusively from developments in communications technology, but there does seem to be a strong correlation between technological transformations and changes to governments and law.

The state is now facing growing competition from other norm-producing entities. Economic stakeholders and non-governmental organizations (NGOs) acting locally and in transnational networks in accordance with supra-national systems are playing ever-increasing roles in the deliberation processes that lead to the establishment of rules and regulations.

There is a set of systems that have the capacity to produce norms. First, state laws are major sources. However, this is compatible with the emergence of law that is developed, negotiated and conceived in different networks that portray themselves as having a vocation to provide frameworks for activities that national state laws do not seem able to completely regulate. Technology and the constraints and opportunities that it presents are also sources of norms (Trudel 2000, 187; Trudel 2001, 221-268).

Institutions have difficulty imposing normative models on individuals who refer first and foremost to their own experience. The end of “master narratives” (“grands récits”) means that there are fewer and fewer frameworks of reference that can provide ethical guides based on broadly held beliefs. From this perspective, risk is a notion that might be able to crystallize the discourses explaining perceptions and conceptions underlying demands and justifications for legal intervention in the changing audiovisual world.

Regulation to manage risk

In postmodernity, risk seems like a major component of the re-configuration of the deliberative processes associated with the production of law. Indeed, the notion of risk has been a major topic in research in the human sciences over the last decade (Jackson, Allum and Gaskell 2004). Diverging and converging perceptions concerning risks, their existence and their scope contribute to constructing arguments that legitimize legislation and regulations. Anticipation, management and distribution of risks are among the leading concerns of legal systems. Ulrich Beck explains that:

Modern society has become a risk society [...] because the fact of discussing the risks that society produces itself, anticipating them and managing them has gradually become one of society's leading concerns (Beck 2006).

If Beck is right, it follows that legislation in general and audiovisual regulations in particular can be seen in the light of risks that tend to justify or legitimate them. Pieret says that risk

seems central in the decision-making process with regard to a future that is largely open and free from beliefs, traditions and destiny. “It represents the intermediary period between security and destruction, in which perceptions of threats determine our thoughts and action” (Pieret). This leads Ewald and Kessler to point out that there is a “requirement that modern policy be thought about in terms of optimal risk distribution” (Ewald and Kessler 2000, 55). Thus, thinking about audiovisual legislation and regulations in the postmodern context requires thinking in terms of risk management. It is as if audiovisual regulation has become a process through which risks resulting from technological normativeness and various emerging internet trends are detected, debated and assessed. State regulation thus consists in making it risky to engage in behaviour and practices that are judged problematic, given the objectives of national legislation.

To regulate activities occurring on the internet is to intervene in the framework of a risk management process (Trudel 2010 243-265). Law is one of the risk management mechanisms in modern societies. Decision-makers take into account societal risks, in other words, the risks facing all a given population. Like other technologies, the internet generates risks for persons and communities.

On the internet, like elsewhere, there are necessarily default regulations, those that have not been decided upon by state authorities but nonetheless have a normative effect on what is available and what is indeed consumed. In fact, a set of rules and norms interact in cyberspace and they generate, each in their own way, risks that stakeholders in the network have to manage. These risks can be perceived at the level of national and territorial communities, as well as at an individual level.

Audiovisual regulations can therefore be analysed as a process by which technological and societal risks are managed by legislators and regulatory authorities. The entities subject to the regulation have to manage the risks resulting from the regulatory measures established by states, just as they have to take into account the risks that are imposed on them by other norms and rules active on the internet.

Risk as a foundation of regulation

First, regulation is motivated by the concern to limit perceived risk resulting from a situation or form of behaviour. States take action to limit, manage, distribute and, ideally, eliminate risks. Risk is what motivates most state intervention with respect to activities occurring on the internet. For example, a number of states have committed themselves to establishing measures to fight against certain crimes by subscribing to the *Convention on Cybercrime*. State decision-makers may consider that the activities of audiovisual companies on the internet generate risks that have to be managed by establishing regulatory mechanisms.

By default, regulatory activities that occur on the internet result from technical normativeness, namely, those prevailing by default insofar as they prescribe the *modus operandi* of techno-

logical environments. Regulation also results from the practices of stakeholders who, through their actions or requirements, impose risks on others. The laws that apply to stakeholders create risks for them that they have to try to manage as best they can in the network space. Each of rules generates opportunities for some and risks for others.

In the audiovisual world based on use of radio waves, the relative scarcity of available frequencies was generally used to justify state regulation. In short, it was argued that the risk of there being insufficient broadcasting channels was a threat to the right to expression of those who would not have the privilege of being attributed a broadcasting frequency. The risks that could result from the impact of audiovisual media have also been among the major foundations of state regulation of radio and television. With the growing trend towards broadcasting radio and television shows on the internet, it is becoming difficult to postulate the scarcity of communications channels since the internet seems infinite. Barriers to entry seem to have been lowered: with very few resources, it is now possible to broadcast shows all across the network. The infiniteness of the network may therefore reduce the risk that seems to legitimize state regulatory initiatives.

The normativeness resulting from the prevailing technological context now makes it possible to broadcast radio and television shows over the internet. These changes reveal the *modus operandi* of regulation in a networked environment such as the internet. Technical normativeness, the norms that apply by default, can generate risks for the values that are the reasons why there are audiovisual regulations in a given social environment. Such technological normativeness generates risks that have to be identified and managed by establishing state rules that create constraints stakeholders cannot ignore unless they are ready to face the risk of sanctions resulting from non-compliance. Risks perceived by stakeholders are a condition for the effectiveness of regulations in networks.

The promotion of values that seem inherent to human dignity, such as the protection of privacy and freedom of expression, and also the fight against hatred, racism and abuse of vulnerable individuals, takes the form of risks in response to which it seems imperative to act, including on the internet. More problematic, risks that the shift to the internet can create for balances that ensure the production of national works seem in some cases to be sufficiently strong to justify efforts to regulate a network that lends itself poorly to uncoordinated state intervention. This sheds light on the conditions in which regulation on the internet can be considered effective: it has to generate a sufficient perception of risk for the stakeholders who are targeted. This is the condition for its effectiveness.

Risk as a factor for effectiveness

State criminal and civil laws establish a large percentage of the rules governing cybernauts practices. For most users, re-

sponsibility with respect to state legislation is treated as a set of risks to be managed. People and companies have to ensure their practices comply with the legal provisions that are likely to be applied and entail their liability. Such stakeholders will try to control the risks resulting from their activities by taking precautions to protect themselves against the adverse effects of the enforcement of national legislation. When rules are stated in legal texts, players tend to adjust their practices so as to limit the risk they can be found to have violated them.

In order to implement their policies, states cannot limit themselves to establishing regulatory measures without asking questions about whether these measures will increase or limit the risk that shouldered by those cybernauts to whom the legislation applies. For internet users, like other players in the network, state laws are seen as risks to be managed. State laws and other normativeness – such as the norms resulting from technology – create more or less risk. This dynamic is necessarily the context in which audiovisual regulations operate.

Legal risk results from stakeholders' assessments of the concrete possibility that national legislation and other rules will indeed be enforced with respect to their activities. Stakeholders within the network will necessarily have to manage the risks they face owing to technical normativeness, other players' practices and the state laws that may apply to their activities. This explains why some legal rules do indeed apply to situations on the internet while other rules, which are theoretically applicable, remain unapplied. The notion of legal risk also makes it possible to explain why, even though the internet is a worldwide network, no one feels compelled to comply with all the national legislation that could in theory be applied. There are phenomena that impede rules established by states and various internet stakeholders, and that prevent them from being applied at the network's extremities. Despite the network's global nature, there can still be major differences between assessments and values in the many cultural milieus in which rules apply (Goldsmith and Wu 2006). Such phenomena prevent the application of rules that are taken out of the context of the situation or cultural substrate in which they apply (Trudel 2010 243-265).

On the internet, the scope and effective tenor of regulations governing activities occurring in the network result from the risk management decisions of all stakeholders. The main risks on the internet result from the configuration of virtual spaces enabled by the internet, in which it is possible to interact. These environments are constructed through technology and what one can and cannot do in them depends largely on their configuration. The behaviour of users and enterprises active in the network also generates risk. Regulation itself, whether it results from legislation or other normative sources, is, in practice, perceived by stakeholders as a risk to be managed.

Stakeholders pass on to their partners the requirements and risks they have to manage. Seen in this way, the regulation of internet environments is essentially an ongoing taking into account and management of risks perceived by various stakeholders. The notion of risk is useful for explaining the impediment

phenomenon in the effective enforcement of national legislation on the internet.

It can be difficult to effectively enforce rules set by governmental authorities acting within a given territory because the internet tends to ignore territorial borders. There is almost always a possibility that an individual will succeed in operating a site that violates national legislation. This phenomenon leads some to think that it is impossible to regulate activities on the internet. However, when we look at this more closely, we find that, in practice, stakeholders who seek to earn money in a country find it risky to operate an internet site that breaks that country's law.

In May 2000, the American Yahoo! company was ordered by French courts to block sites defending Nazism since such content is prohibited in France and other European countries.¹ Of course, it proved impossible to force the company, which is based in California where such discourse is not prohibited, to obey the French court,² but the French subsidiary of Yahoo! finally decided to comply with French law (Kelly 2004, 257-264). The most likely hypothesis explaining such behaviour is that the American company considered it too risky to continue ignoring the prohibitions of French law. A risk management approach would therefore have led the American company to comply with French regulations. Even if, in theory, French law does not apply to an American entity, French legislation has shown that it can create enough risk for a company to comply in practice... especially if it hopes to continue attracting French internet clients.

There is another example of states' capacity to create risk through the indirect regulation of an activity on the internet. In 2006, the United States passed a law limiting the possibility of using credit cards issued by American banks to pay online casinos (Marconi, Davis and McQuad 2009, 602-603). Rather than intervening directly against online casinos, the legislation increases the risk of those doing business on the internet, sometimes from areas outside of the scope of American legislation. The legislation forces companies to find other forms of payment for transactions with people in the United States. This is an example of national legislation that does not prohibit the operation of casinos on the internet but makes them riskier to operate when Americans are involved.

Internet stakeholders see technical constraints and possibilities, as well as legislation that could apply to their activities, as risks to be managed. The regulation operating in cyberspace is essentially the result of stakeholder and regulator risk management strategies. Such regulation can result from all stakeholders, including states. Viewed in this way, the question of regulating the internet and the activities that occur on it looks essentially like a set of rules and mechanisms coming from states and other sources, and increasing or decreasing the risks of users and other stakeholders. In such a network, regulators and stakeholders are in a position to increase or decrease risk for themselves and for others. Technology produces situations that increase or decrease risks. The same goes for legislation.

Conclusion

Regulation of audiovisual content on the internet takes the form of active normativeness resulting from risk management decisions made by regulators and web stakeholders. On the internet, states, users, companies and other players manage risks. Through their decisions and behaviour, all producers of rules and norms both create risks and are also subject to the risks resulting from applicable rules and norms. They pass on both kinds of risk to their partners and to those with whom they have signed contracts.

In the postmodern world, characteristic of the digital revolution, state intervention is seen differently than in classical approaches. The givens that used to provide the foundation for state intervention have shifted. Classical justifications seem to have been replaced by foundations taking different forms.

Audiovisual regulation on the internet results from technical configurations, the practices of players on the network, and rules legislated by states. It is part of a normative network with multiple sources rather than a set of hierarchical state norms. The degree to which regulations are compulsory results from the risks that stakeholders associate with being found to have violated them. Stakeholders find themselves obliged to cope with the multiple risks that are imposed on them by these rules and norms.

This process shows that the effectiveness of regulating audiovisual companies on the internet depends on its ability to generate a sufficient level of risk. Legislation and the regulatory processes that implement it have to mesh with consistent strategies in order to generate sufficient risk for players who could be inclined to adopt practices incompatible with the requirements of public policy regarding audiovisual services and programming.

Risk analysis makes it possible to assess the stakes of regulating internet broadcasting and to calibrate the implementation mechanisms. In order to accurately describe audiovisual regulation in cyberspace, we have to identify the risks that result from the internet's technical configurations, user practices and the objectives of public audiovisual policy. Identifying these risks makes it possible to determine those that can be accepted and those that have to be managed through regulations which, in turn, should generate enough risk for players for them to find it rational to comply.

Given the importance of risk perception by those targeted, the legitimacy of regulations becomes crucial to the effectiveness of state intervention. Indeed, if it is not seen as legitimate, regulatory intervention is difficult to apply and its violation is saluted rather than disparaged. The ability to regulate audiovisual content is therefore becoming increasingly dependent on promoting the legitimacy of the values regulations are designed to protect.

Notes

1. *UEJF et Licra v. Yahoo! Inc. et Yahoo France*, Ordonnance de référé, 22 May 2000, online, JURISCOM.NET. <<http://www.juriscom.net/txt/jurisfr/cti/tgiparis20000522.htm>>. [Consulted on June 29, 2011]
2. *Yahoo! Inc. v. La Ligue Contre Le Racisme et l'Antisémitisme*, 433 F.3d 1199, 1202 (9th Cir. 2006).

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The internet and its governance

ANTONI ELIAS

UPC professor, former member of the Telecommunications Market Commission

eliasfuste@gmail.com

Abstract

In just over fifteen years, the internet has become the vehicle for and instrument that sustains the new social model we know of as the “information society”. The internet is a service based on a system of telecommunication networks of a different nature, with various models of exploitation and under different legal jurisdictions.

To show the complexity of internet governance, a view is presented from three perspectives: technical, economic and social. The combination of the economic aspect with the social leads to the need to find a balance in order to integrate the “open service” (neutral network) nature of the internet, with good quality service provided in the supporting telecom networks. The article proposes a distribution of a network’s capacity that allows the aforementioned integration, and the need for an independent international body to manage internet governance.

Keywords

Internet, networks, technology, neutrality, governance, economy, society.

Resum

En poc més de quinze anys, internet s’ha convertit en l’eina vehicular que sustenta aquest nou model social que coneixem com a “societat de la informació”. Internet és un servei que es basa en un entramat de xarxes de telecomunicació de naturalesa diferent, amb diversos models d’explotació i sota diferents jurisdiccions legals. Per tal de mostrar la complexitat de la governança d’internet, es presenta una visió sota tres perspectives: la tècnica, l’econòmica i la social. La combinació del vessant econòmic amb el social indueix a la necessitat de trobar un equilibri que permeti conjugar el caràcter de “servei obert” (xarxa neutral) d’internet, amb actuacions de qualitat de servei a les xarxes de telecomunicacions que el suporten. L’article proposa una distribució de la capacitat d’una xarxa que permet la conjunció anteriorment esmentada i la necessitat d’un organisme internacional independent que gestioni la governança d’internet.

Paraules clau

internet, xarxes, tecnologia, neutralitat, governança, economia, societat.

The internet, the paradigm of convergence between computing and telecommunications, has become an essential tool to get information and knowledge, to share, store, recall, produce, investigate, compete... In short, to take part.

When computing proposed the need to send data between computers located at a considerable distance apart (further than the printer), it resorted to telecommunication networks, which had always stood out for working under perfectly defined standards implemented as large engineering projects. These networks suddenly received a fresh, agile boost from a technique free from any kind of *a priori* definition, for which competition, the market, imposed the most widely used, in terms of machinery and also programming, as the reference to be followed and improved. How computing has evolved has therefore encouraged the development of telecommunication networks, making them proactive and vivid, but has also infected them with the chaotic disorder that has always characterised computing. As a product of the coming together of computing and telecommunications, the internet owes a large part its success to this evolutionary chaos, as well as a large part of its current problems.

It’s not at all easy to attempt to manage the internet and even less so govern it. To tackle the issue of internet governance, our aim is to approach the system from three points of view: technical, economic and social.

The internet from a technical point of view

The internet originated in the ARPANET project by the US Defence Department. It was conceived along the lines of what we now know as an “open network”: the use of telecommunication networks to establish a system that permits the exchange of data between centres irrespective of the type of machinery or programming each of these centres has and uses. At the beginning, in the early 1960s, ARPANET was connected to four centres¹ via the NCP (network control program) protocol and the file transfer protocol (FTP). By the mid-1970s, Vinton Cerf and Robert Khan presented TCP/IP (transmission code protocol / internet protocol): IP is a first level program that makes the heterogeneity of the different networks and devices compatible

while TCP ensures, at a second level, the effective routing of packets of data. The philosophy of ARPANET inspired other systems, such as the National Science Foundation Network (NSFNET) for the exchange of scientific data. In 1971, ARPANET was made up of 15 nodes; in 1980 ARPANET and NSFNET were connected and the resulting system had 100 nodes in 1985 and more than 500 in 1989. The system closed in 1990 and the internet was born, which inherited the know-how and interconnection infrastructure of ARPANET-NSFNET; after four years, the internet became widespread as a global system to exchange data and by 1995 the internet had 35,000 interconnected networks, with around 4,800,000 servers (central computers) and an estimated figure of 30 million users.

The universal use of the internet arrived with the hypertext information distribution system, the World Wide Web, developed by CERN physicist Tim Berners-Lee in 1990,² and the first user-friendly browser, "Mosaic",³ created in 1993 by Marc Andreessen and Eric Bina.

The rapid growth of the internet over 18 years has meant that the current IP addressing protocol, IPv4, has exhausted its capacity. On 3 February 2011, the Internet Assigned Numbers Authority (IANA) released the last block of addresses available (33 million) to the organisation responsible for allocating addresses in Asia. IPv4 has enabled 2 to the power of 32 addresses (4,294,967,296 different addresses). The ambition of the internet to have an address for each person, for each telephone, for each vehicle, even for each object, has meant that a new protocol has had to be defined, IPv6:⁴ it provides 2 to the power of 128 addresses, a practically inexhaustible number of addresses (in the order of 10 to the power of 38), and is also a more suitable IP protocol for mobile applications, better at data authentication, integrity and security, favourable for pricing and with more facilities for real time applications, such as video-conferencing, since it allows the automatic self-configuration of *plug and play*. The US government ordered IPv6 to be implemented in all its agencies in 2008 and it is currently being adopted by operators in all countries.

In the 1980s, at the same time as the internet was developing, telecom operators also developed the integrated service digital network (ISDN) to provide their users with an efficient, reliable data exchange system; however, the magnificent ISDN, with its seven levels of open system interconnection (OSI), has given way to the effectiveness and lower cost of the IP protocols. The reason for this, firstly, lies in the appearance of local networks and work stations with UNIX operating systems in the 1980s: users wanted to access ARPANET-NSFNET with their computers, so manufacturers gave them work stations with the free protocols of FTP and TCP; ISDN was being designed at that time but, even if it had been operational, its complexity and patent protection would not have made it attractive to the manufacturers of domestic computers. The second reason lies in the simplicity of the IP protocols compared with the ISDN, a simplicity that has not involved any loss of efficiency thanks to the great improvement in reliability experienced by electronics

for the equipment that comprised telecom networks at the end of the 1980s.

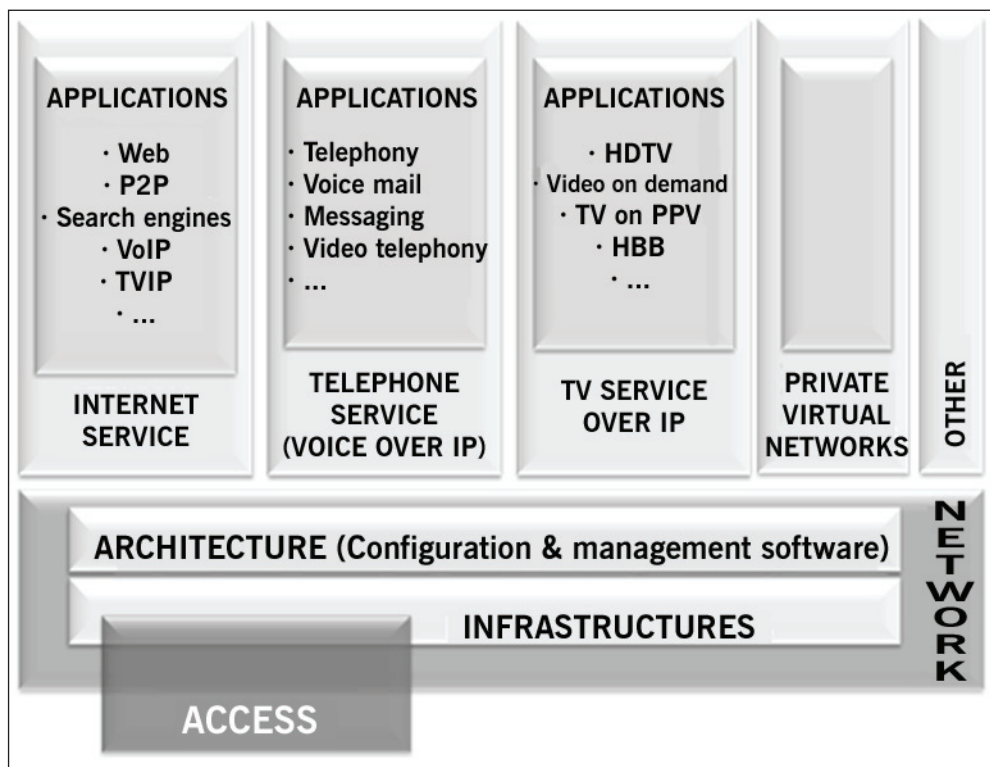
Up to the mid-1990s, telecom operators were still detached from the internet phenomenon. In 1992, the European Telecommunication Standard Institute (ETSI) set up the GSM (global system mobile) digital mobile telephone system, designed with all the typical telecom engineering traits: reliable, robust, secure, confidential and good quality but... it only provided mobile voice communications. It wasn't until 2000 that mobile communications operators set up a variant of GSM, GPRS (general packet radio service), which allowed the transmission and reception of packets of data via radio. Telecom operators were now fully aware of the real and potential volume the internet service required from them. The beginning of this century also saw the adaptation of landline telephone networks so that they could provide broadband services or high speed services in data transmission by using ADSL techniques (asymmetric digital subscriber line), as well as the roll-out of hybrid coaxial-bifilar and fibre optic networks and the development of the third generation mobile telephone system UMTS (universal mobile telecommunications system), specifically designed based on the commutation of packets of voice and data to attend to the growing demand for fast data transmission, fostered above all and especially by the internet service.

In some languages the internet is popularly known as the "network of networks" and although it's true that this is the first conceptual perception it offers, perhaps it would be more appropriate to see the internet at a "service of services" with a global scope or coverage and provided via electronic communications networks.

The European Union itself, in its document entitled *European Principles and Guidelines for Internet Resilience and Stability*,⁵ defines the internet as follows: "the Internet is to be understood as the global and public network of networks whose nodes communicate with one another using the Internet Official Protocol Standards and are identified by a globally unique address assigned via the relevant process". These unique addresses are currently granted by IANA, a body that reports to the Internet Corporation for Assigned Names and Numbers (ICANN).⁶

From a telecom network engineering point of view, the internet would be just another service (in a strict sense and without taking into account the absolute or relative volume of the data it handles). The latest generation or new generation networks (NGN) are structured as shown in figure 1: we can see that the concept of network includes not only infrastructures but also management software. Infrastructures include all physical and technical supports of the network, fibre optics, coaxial, copper pair and radio channels, together with the transmission-reception techniques (modulation, multiplex, xDSL technologies, etc.) and constitute the so-called "first layer". The management software that makes up the architecture of the network and that constitutes the "second layer" is currently all IP. However, this does not mean, as shown in the figure, that the whole network is the internet. Because of their simplicity and effectiveness, IP

Figure 1. Structure of networks and latest generation services



Source: Author.

protocols have become the standard for configuring telecom networks, allowing the convergence of different types of electronic transport infrastructures, including the access capillary network.

Different services are set up over the telecom networks (third layer). In fact, telecom operators charge users for the service taken out: each service has different applications and each application manages certain content; it's the so-called horizontal structure of modern telecom networks and services (see figure 1). Although the different services and applications also use TCP/IP protocols, they can only be considered part of the internet service if, for their function, they need the unique addressing (DNS, TLD, etc.) provided by IANA. So, by way of example, the TV over IP services of Imagenio and Orange TV and the TV services of cable operators are not internet applications, and neither are the telephone services that are currently provided almost totally via IP techniques (VoIP): simply because their signalling and peer-to-peer routing is not carried out in all cases via internet addresses but via the classic telephone numbering system. In short, and according to the Federal Communications Commission (FCC), the internet should be seen as "the system of interconnected networks that use the IP to intercommunicate with network or terminal elements that are directly accessible or via a proxy server and that are identified by means of a unique address globally assigned by IANA".

The access infrastructures (radio, copper pair, fibre optic) also form part of the network and telecom operators also charge users for the type of access depending essentially on the kind

of infrastructure and bandwidth this infrastructure is capable of providing.

Access infrastructure bandwidth has become the main bottleneck for the internet service's access and download speeds. To be able to provide new applications, principally audiovisuals, and continue developing networks in the sense of offering greater bandwidth to develop new applications, telecom operators have to renew the current access infrastructures. Basically, they have to implement a fibre optic access network for landline networks and an LTE (long-term evolution or fourth generation) network for mobile communications. As we might expect, this is encountering several problems in Europe: strong telecom regulations, the little or inexistent internet regulation together with the problems caused by "net neutrality" do not seem to encourage investment on the part of the large electronic communications operators.⁷

Around 25,000 routing domains or autonomous systems currently make up the internet, having reached voluntary interconnection agreements. Autonomous systems are large organisations (universities, companies, etc.), retail internet access providers, wholesale internet connectivity providers, suppliers of content and applications and providers of caching⁸ services or similar. Each autonomous system is responsible for a series of IP addresses or destinations for communications (their routing domain).

Traditionally, two kinds of interconnection agreement have been distinguished on the internet: by traffic –a service by which, via remuneration, a supplier offers access and complete

connectivity to another supplier; and by peering –when two suppliers exchange traffic, normally without remuneration, whose origin and destination are in their respective routing domains.

The internet from an economic point of view

Over the last thirty years, ICTs have caused a rapid innovation in economic models, so much so that we can almost speak of a new economy, an economy that has become global and is above all based on applying, creating and spreading knowledge acquired via research, which generates wealth via invention and innovation, to which end it needs all economic, academic and social sectors to share and exchange growing amounts of information. An economic system like this requires excellent telecom infrastructures, systems and services, both to generate value and also to turn this into economic goods, either a product or a service.

As a telecommunication service, the internet is probably the one that best fulfils the service-based objectives for this new global economy and its greatest impact is probably yet to come. In the first decade of this century, the internet has been a salutary lesson in economic terms for developed economies and will continue to be so if we can continue to invest in broadband infrastructures that allow high quality electronic communication services and applications to be offered. Nevertheless, in the decade we have just started, the internet will particularly transform the economic and social dynamic of emerging economies and its global impact will be much bigger than it was in the first decade of the 21st century.

Apart from the important economic effects of the internet as an essential across-the-board service for the aforementioned economic transformation, it is also an asset of great economic value *per se*. The internet has undergone the phenomenon of focusing on users as suppliers of content. Web 2.0 is permitting social networks, blogs, indexed multimedia content, semantic networks, P2P (peer to peer) exchange, homemade video portals, mobility with wireless internet access and the use of the ubiquity of information in applications. The outcome of all this is billions of users, of content, of growth, interactions, etc., which it wouldn't be apposite to detail here but which are accessible on thousands of websites.

The internet has given rise to a multitude of innovative dot coms, has generated new business models, has stimulated the creation of new products and services and is changing the traditional way consumers buy. The internet is transforming how companies sell and supply and even, with the appearance of cloud computing, how production and control processes are structured and carried out, as well as the size of human resources and investment in capital goods.

Cloud computing is becoming a reality incredibly quickly, not only because users have devices (PCs, tablets, Smartphones, etc.) that allow them to access any kind of information at any time and anywhere, but also because it provides access to

services that had previously been reserved for large firms and corporations. In this way, software to manage companies, for security, storage solutions, corporate servers, business analytics solutions (BAS), CRM (customer relationship management), etc. can be accessed by any company or business and at totally affordable and competitive prices (by time used, subscription fee, access, etc.), reducing the cost of computing services for firms and avoiding the need for huge investment in machinery, software and personnel. In the immediate future, concepts such as software as a service (SaaS) and platform as a service (PaaS) will form part of the management vocabulary of any business. There are many cloud computing service providers and these are quite diverse: some are very large and generalist (such as Amazon, IBM, Hewlett Packard, Salesforce, VMware...) while others are smaller and more specialised (NetApp, Examworks, Quota, Professional Answers, B-Kin, E-nomina), but to access any of their services, at the moment it is vital to use the internet and, given how important they become for a company that chooses these services, secure, reliable and robust access is required: in short, internet access with guaranteed service quality.

The internet has revolutionised the telecommunications business. At the end of the last century, the average occupation of a landline circuit was less than 20 minutes a day; internet access via the broadband techniques that really only required small modifications in the access network allowed data traffic to be increased in those networks with excess capacity that had been designed following a criterion of a certain probability of congestion. The charging of this new service via flat rates provided operators with substantial marginal income. Flat rates led to internet growth, both in terms of access and content: innovative applications appeared that required increasingly more bandwidth, new service providers and new user terminal equipment. To be able to continue handling the increase in traffic caused by the internet, telecom networks gradually modernised, in the sense of growing in bandwidth and transforming the old design criterion based on the probability of congestion into a new criterion, the probability of concurrence, with services supplied under the *best effort*⁹ concept. In other words, networks that had been designed based on the view that not all users were connected at the same time and paid for the time they occupied, had to adapt to a situation where most users were permanently connected and only paid a flat rate for this connection.

Mobile telephone networks have always been physically more limited in providing access to great bandwidth. That's why they have never proposed to offer flat rates for data services: for data services, mobile telephone operators have always offered prices for downloading or rates with download limits, or different prices depending on the time or day, never purely flat rates like landline telephone operators.

Given this continual increase in data traffic, operators are planning on investing in new generation access (NGA)¹⁰ networks and focusing on access models such as those of mobile networks. However, the disappearance of flat rates does not solve the problem of too much traffic, so they are also looking

at handling the management of data and internet traffic more efficiently, and the issue of “net neutrality” has also appeared.

Net neutrality has aroused debate regarding how operators treat the traffic of their users’ internet access and whether limitations should be established to the traffic management mechanisms applied or whether offering delivery with guaranteed quality for a fee to companies providing internet applications should not be allowed. The measures aimed at guaranteeing traffic is treated neutrally aim to maintain the original essence of the internet, an open, free network with an environment that fosters innovation for internet firms, but they can also hinder the introduction of new functions on networks, so that we must be cautious when intervening in such dynamic markets as those related to the internet.

Practically all telecom regulatory bodies are taking up the position in favour of maintaining the neutrality of internet traffic¹¹ but, at the same time, they are also allowing certain traffic management practices, especially those related to filtering spam and malware.

Telecom operators propose offering a series of applications, either internet or not, as “managed services” that would charge users based on the type of service and quality guaranteed for the bit per second rate, based on the same traditional economic model as telecommunications (charging users for access to the network and for each of the services taken out). On the other hand, they realise that the internet has become a “two-sided market”, where not only users have to pay for using services but also the suppliers of these services; consequently, operators are negotiating agreements with some suppliers. In this respect, operators have started to win some legal battles against the prohibitions of electronic communication regulators.¹²

Applying the right to competition does not result in any principle of “neutral network” that impedes network providers from differentiating between the various suppliers of information society services in accessing the network. Quite the contrary; the differentiation of traffic via quality of access and delivery increases what is on offer and therefore also increases competition between operators.

With the issue of “net neutrality”, the internet service’s value chain is being redefined; however, we cannot renounce the original essence of the internet: the concept of an open network that has fostered the virtuous circle of innovations and developments of the internet. We must find intermediary solutions that satisfy, if not completely then at least partially, both telecom operators and social groups and suppliers that need an open internet. We need to try out solutions of the type: “Telecom operators will preserve x% (50?) of their data transmission capacity at least 90% of the time per year (month) of operation for the best effort of freely managed data transfer.”

The internet is facing a new challenge: achieving the total convergence of services and achieving users’ complete trust (security, robustness, user-friendliness). The former is not futile: we must all manage to combine the “open service” nature of the internet with actions to ensure service quality on telecom

networks, a quality that can only be offered by managing the traffic circulating on it. The problems of “net neutrality” must be resolved, also in terms of governance.

The internet from a social point of view

It is evident that the internet is changing how we communicate with each other, how we access information, how we work, our habits in general. The internet influences us individually and as a social group. The internet is becoming the main conductor of the social revolution fostered by information and communication technologies (ICTs). Terms such as *website*, *blog*, *email*, etc. did not exist just over fifteen years ago; others such as *server*, *portal*, *site*, *browser*, *chat*, *mobile*... have extended their meaning and, by default, when we use them, we understand them in their present context. The prefix “e” (from *electronic*) before the name of classic services suggests modernity and progress: *e-government*, *e-health*, *e-justice*, *e-administration*, even *e-democracy*. Never before in history has a change of this size been taken on by a single generation. It is therefore a true revolution and one that is not easy to quantify or evaluate, given that it is currently in full flow.

If there is any time in the history of humanity that can be compared with the situation today it is undoubtedly, in my opinion, the arrival of the printing press as a tool for communication and to disseminate knowledge and ideas. To get an idea of what the internet means for the society of the first few decades of the 21st century, we can attempt to establish a parallel with what the printing press meant for the society of the 16th to 20th century.

Printing *per se* appeared thanks to Johannes Gutenberg in 1450, but it wouldn’t be until the beginning of the 16th century when its use became widespread throughout the western world. For 16th century society, the printing press represented the chance to access and contribute to information, to culture, to documentation that, until that time, had been confined to monasteries and was parsimoniously administered by, with all due respect, the great multinational of the time. The development of printing meant that anticlerical ideas could be more readily disseminated and, when Martin Luther published his 95 theses against the papal indulgences in 1517, he could disseminate his ideas much more than his predecessors. Printing encouraged a renaissance in science and humanism: printing is the genesis and support of the great humanist and scientific movement of the 18th century known as the Age of Enlightenment.

I don’t think it is any exaggeration to state that, in the five centuries from the 16th to the 21st century, society was organised based on printing: printing represented a new way of teaching, a new way of doing business and of evaluating it, a new way of spreading news, of governing... In short, a new economic and social model.

If we briefly review some notable events for printing, we will realise that the following are being repeated with the internet, among others:

- Lists of banned books were drawn up in an attempt to monopolise the use of printing. Today we can still find many different attempts by some countries to filter or even prohibit the internet.¹³
- Encyclopaedias were printed in an attempt to preserve and disseminate all explicit knowledge. The different Wikis on the internet are based on the same philosophy.
- There is so much information on the internet that it dazzles rather than enlightens. There is good and bad information on the internet. The same thing can be said for books and printed publications.
- Printing made 16th century society become aware of its illiteracy, as people had to learn to read in order to access printed products. To access the internet, we need to have a minimal knowledge of how to use new technologies, we have to learn how to “surf the net” and it is also useful to know how to install and uninstall a program and handle an antivirus, etc. We currently have a problem that must be eradicated and we can't take 400 years: digital illiteracy.

Printing still supports our social and economic model today. Certified and official documents, contracts, invoices, title deeds, official registries, laws and decrees, etc. are still on paper. It's true that things are starting to change in the sense that documents are now being produced in digital format,¹⁴ but this is just beginning and I personally believe this will be the accurate indicator of the full shift from a social and economic structure based on, and through, printing to an evolved structure founded on electronic supports and increasingly located on a network. This is what is known as the “information society”; a new social model that, conceptually, we have to develop into a “knowledge society”.

Although we can glimpse the importance of the social change we are going through, we are incapable of quantifying its extent. Once again, a glance at history regarding the developing of printing can act as a guide in terms of the ideals that should be preserved. What would have happened if “the powers that be” of the 16th century had taken control of printing? Surely the Enlightenment wouldn't have occurred (or at least it would have been held back several centuries) and our western world today would be quite different. In this same respect, the internet must keep its original character of an open, free network, where everyone can contribute and share. The internet must continue to be the remote space that allows us to grow in knowledge: the only growth we can classify as sustainable or even sustained, and this must be so as we must become wiser, because we have to continue being happy with fewer resources and only the wise know how to find and appreciate what is crucial in order to be happy.

Governance

By governance, we mean “the art or way of governing whose

aim is to achieve lasting economic, social and institutional development, promoting a healthy balance between the state, civil society and the market of the economy”.¹⁵

Given this definition, it seems that “governance” is the appropriate term to refer to safeguarding the internet system because it groups together, under a praiseworthy objective, the three actors most involved in the internet's future: states (political bodies), civil society (social institutions) and the market (economic goods). In this respect, Mr. Jorge Pérez Martínez, Professor at the Universidad Politécnica de Madrid, defines internet governance as “the development and application by governments, the private sector and civil society, in the functions they are respectively responsible for, of principles, standards, rules, decision-making procedures and common programmes that make up the evolution and use of the internet”.¹⁶

Nevertheless, and in spite of all this, there is no obvious answer to the question of who makes the decisions regarding the internet. The internet is managed via a complex structure that is not at all static, where efficiency has been sacrificed for representation and for which we can surmise that the most important administrative agreement is the Declaration of Affirmation and Commitments¹⁷ signed by ICANN with the US Department of Commerce, which is probably the body with the last word.

We have seen that the internet is configured as an open system or information service structured via different telecommunications networks of a different nature (landline, mobile, satellite), mostly of private capital but also public in some cases, operated by different companies, these also being of a differing social nature. The interconnection of these networks provides the physical infrastructure that supports the internet service. The internet is therefore “technically complex”. On the other hand, the large variety of networks that make up the internet are implemented in all countries and therefore come under different sovereignties and legal regulations and, even though these tend to be convergent in democratic countries, this is not the case in all countries; in fact, the internet is the great scourge of totalitarian governments. The different regulations for telecom networks also make the issue of governance “legally complex”. Due to its transparency as an all-embracing infrastructure for economic development and due to the economic potential it represents in itself, the internet is also “economically complex”. Finally, due to its important role as a dynamic and structuring force in society, we must add to the aforementioned complexities that of it being a “subtle, complicated social engine” which should be allowed to run, perhaps with a need for guidance but never to be steered.

The mission of the Working Group on Internet Governance (WGIG) is to secure, improve and decide global mechanisms that help to coordinate, in a transparent way, the elements that make up the internet, from the telecom networks, services and applications that comprise it to, if applicable, the possible supervision of content (protecting children, unlawful email applications, etc.).

The WGIG is made up of 40 members from different countries and representatives of different stakeholders: governments, pri-

vate economic sector, academia, civil organisations, etc. The group was set up in 2003 and, since then, has carried out its work, summarised in annual reports that help to guide the management actions of the different bodies that really have decision-making powers in administering the internet service, an administration that, due to reasons of history and organisational distribution, both in terms of function and location, most internet users are still completely unaware of.

In most western countries there are internet governance forums (IGF) that help to make the WGIG representative. The Spanish IGF is made up of representatives from the state, academia, economics, user associations and telecom operators. The results of the talks at its annual congress are passed on to the WGIG. The documents produced by the Spanish IGF are of great interest to understanding the immense complexity of the internet universe and have been consulted extensively to produce this article.

When a worldwide phenomenon such as the internet combines the right of states and the physical laws of nature with the innovative, curious, organisational and productive spirit of human beings, it requires a representative body at a global level to safeguard its progress and allow it to develop. The current internet governance forums are doing a magnificent job as promoters of good practices, facilitators of its expansion and locators of dysfunctions but they lack the executive power to effectively solve the problems generated by something as complex as the internet. From a technical point of view, ICANN fulfils its function perfectly but its functional dependence on the US Department of Commerce makes it biased and weakens its position as an internationally representative body. The International Telecommunication Union (ITU), which manages and harmonises telecommunications by defining standards and allocating the radio spectrum, doesn't seem suitable either due to its lack of flexibility to oversee such a dynamic phenomenon as the internet.

It should also be noted that the system of telecom networks constitutes a new scenario of international relations, called "cyberspace". In some way, all the activities of our society use telecom networks for its management and control: the internet also uses these networks and it has also become a vehicle for new forms of criminal behaviour, such as attacks with viruses and identity theft and even industrial and political espionage. To maintain sovereignty, the governments of various states have been forced to create specialised units within their intelligence services to defend each country. Internet governance must not ignore this important issue that, whether we like it or not, will always affect the internet.

Considering all the above, to safeguard the internet we might propose "a body that fosters international cooperation to secure the stability and growth of an information exchange internet system with universal, free and open access that facilitates and harmonises international economic and social development". This definition has been taken, adapting the vocabulary, from the introductory definition of the International Monetary Fund (IMF).¹⁸

Such a body should maintain the transparency of the current

organisations that contribute in some way towards the management and governance of the internet (ISOC, ICANN, WGIG), bringing them together under its hierarchy and resizing and redefining their functions, if necessary.

The growing importance of the internet in all fields of human activity, its technical complexity, the legislative heterogeneity it currently supports and its potential as a tool for world cohesion and social and economic development make the internet worthy of a body that can safeguard and manage it at the same level as the IMF or other similar organisations.

Notes

1. Stanford Research Institute, University of California Los Angeles, University of California Santa Barbara and the University of Utah.
2. In order to facilitate the exchange of scientific data, Tim Berners-Lee and his team created the HTML (*hyper text markup language*), HTTP (*hyper text transfer protocol*) and the URL (*uniform resource locator*), protocols that make up the system of "www" pages.
3. Mosaic was the first browser to use the protocols "file://". The first version worked on the UNIX operating system but, given its efficacy and user-friendliness, in 1994 there were already versions for the Windows and Macintosh operating systems. In 1997, Mosaic was replaced by Netscape.
4. Designed by Steve Deering and Craig Mudge, the version 6 internet protocol (IPv6) has been defined to replace the IPv4, currently implemented in most devices that access the internet. <<http://www-ipv6.es>>
5. EUROPEAN UNION. *European Principles and Guidelines for Internet Resilience and Stability*. Version of March 2011. <http://ec.europa.eu/information_society/policy/nis/docs/principles_ciip/guidelines_internet_fin.pdf>
6. Since 1998, both IANA and InterNIC have been reorganised under the control of ICANN, a Californian non-profit corporation, hired by the US Department of Commerce to manage internet addresses. The role of operating the DNS system was privatised and opened up to competition, while the main management of assigning names would be granted via contracts.
7. 2010/572/EU: Commission Recommendation of 20 September 2010, on regulated access to Next Generation Access Networks (NGA).
8. Technique of temporarily storing the most frequently requested data close to the party requesting the data.
9. *Best effort* describes a network service where the network does not offer any guarantee that the data will be delivered with a specific level of service quality. In a best effort network, all users obtain the best service possible, which means that the bit rate at which they access the network is variable and depends on the total traffic load at any given time.
10. Really, it's at access where the bandwidth bottleneck occurs, the rest of the network, backbones and trunks, already has a wide bandwidth (fibre optic).

11. The six obligations proposed by the FCC for broadband internet access service operators: <http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-09-93A1.pdf>. Body of European Regulators for Electronic Communication, BEREC, has established a permanent working group on net neutrality. <http://erg.eu.int/doc/berec/bor_10_44rev1.pdf>
12. The Court of Appeals for the District of Columbia has stated that the FCC does not have the authority to impose network management practices on Comcast. McCOLLUM, J. *FCC vs. Comcast on Net Neutrality: FCC loses. Marketing Pilgrim*. 7 April 2010. <<http://www.marketingpilgrim.com/2010/04/fcc-vs-comcast-on-net-neutrality-fcc-loses.html>>
13. Reporteros Sin Fronteras. *Enemigos de Internet 2011*. 12 March 2011. <http://files.rsfs.es.org/200000877-dcb20d-dac0/RSF_ENEMIGOS_DE_INTERNET_2011.pdf>
14. By way of example, since January 2010, in Spain, the famous “family book” has been replaced by a centralised digital registry.
15. *Diccionario de la Lengua Española* by the RAE, twenty-second edition, 2001.
16. PÉREZ, J.; OLMOS, A. “Introducción. La gobernanza de internet”. *Telos: Cuadernos de comunicación e innovación*, number 89, July-September 2009. ISSN: 0213-084X . <<http://sociedadinformacion.fundacion.telefonica.com/telos/articulocuaderno.asp?idarticulo=1&rev=80.htm>>
17. Affirmation of commitments acquired by the US Department of Commerce (DOC) and the Internet Corporation for Assigned Names and Numbers (ICANN). September 2009. <http://www.gobernanzainternet.es/doc/archivos/Declaración_de_compromisos.pdf>
18. The International Monetary Fund (IMF) works to foster international monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world. <<http://www.imf.org/external/np/exr/facts/spa/glances.htm>>

For a regulation of multimedia communication networks that serves the public interest: ten principles

JOSEP MARIA CARBONELL

*Dean of the Blanquerna School of Communication Studies
at Universitat Ramon Llull and former CAC chairman*

josepmca@blanquerna.url.edu

Abstract

The media and electronic communication networks (which are increasingly more convergent) are becoming the backbone of the world. Given this situation, liberal and democratic political regimes can opt for different kinds of regulation. This article proposes a social-liberal regulation, based on ten principles, for multimedia communication networks that serve the public interest with the aim of strengthening democratic power and citizen engagement and eliminating invisible areas for large (mostly transnational) private powers that are becoming increasingly important in society. A network regulation with strong social legitimacy is an ally to freedom and progress.

Keywords

Regulation, multimedia communication networks, public interest, media systems, freedom of expression.

Resum

Els mitjans de comunicació i les xarxes de comunicació electròniques –cada cop més convergents– s'estan convertint en la medul·la espinal del món. Davant d'aquesta realitat, els règims polítics liberals i democràtics poden optar per diferents tipus de regulacions. Aquest article proposa una regulació liberal-social, assentada en deu principis, de les xarxes de comunicació multimèdia al servei de l'interès públic amb l'objectiu d'enfortir el poder democràtic, la participació dels ciutadans i acabar amb les zones d'invisibilitat dels grans poders privats –la majoria transnacionals– que cada dia agafen més importància en la societat. Una regulació de les xarxes, amb una forta legitimitat social, és una aliada de la llibertat i del progrés.

Paraules clau

Regulació, xarxes de comunicació multimèdia, interès públic, sistemes mediàtics, llibertat d'expressió.

Introduction

We are fully immersed in the information society, a model of society in which the *information generation, processing and transmission*¹ have become essential factors that condition economic and social processes as a whole. Moreover, "electronic communication networks will constitute the backbone of our lives",² where information becomes a key ingredient. In the information society, in addition to the political and state system, the role of *transnational corporations* (TNCs) is becoming increasingly important. *Transnational informational capitalism*,³ which is very probably the definition that best identifies the current model of global development, has restructured new spaces in the world network of an economic, political and cultural nature; more fluid, dynamic and flexible spaces, and it has pushed out its borders, nevertheless setting up "structural inequalities".⁴ This kind of capitalism is characterised by a type of economy that is primarily aimed at innovation, research and the production of knowledge via industries centred on micro-electronics, ICTs, creative industries (normally aimed at culture and entertainment) and the sector of biotechnologies, as well as the services sector.

This is the context in which *multimedia communication net-*

*works*⁵ have appeared, *networks* made up of the media and electronic communication networks that are acting in an increasingly interrelated, convergent way and that, in my opinion, have three functions: they are *mediation networks* that generate individuals' symbolic universe, they condition access by citizens and become essential in order to interpret reality and generate and articulate knowledge. The emergence of these networks is altering the whole media environment in an extraordinary way. Communication systems must be appreciated from this global, converging perspective.

In this context, I believe it's relevant to insist on the three most important processes being experienced today by the world of communication: firstly, the appearance of the internet and the emergence of *mass self-communication*.⁶ In addition to the transformation of the traditional media and to the appearance of a new communication environment with new media, we have also seen a new communication concept appear, *mass self-communication*, in which users have become both senders and receivers of their messages. With the exponential multiplication of network users and the possibility of transporting them, *mass self-communication* will be an increasingly important model. Secondly, we are witnessing a relentless process of concentration, particularly in terms of prime time multimedia content.

The great *majors* perform the function of integrator and controller of the distribution and dissemination processes through alliances with network managers. Possibly the most decisive factor, beyond the tendency towards cultural uniformity, is that these majors are attempting to influence beyond the communication sphere, “Media power is political power”.⁷ And, finally, thirdly, communication and networks are seen, in principle, as commercial goods and are losing their dimension as social or cultural goods. This trend is contrary to the idea that information and communication are more than just a commercial good or merchandise. They are too valuable to be left to the invisible influences of the market.

Broadly speaking, there are two regulatory models in liberal political systems for multimedia communication networks.⁸ On the one hand, the *radical-liberal model of multimedia communication network regulation*, which believes that public intervention should be as minimal as possible, which sees communication essentially as an economic good and just another business. It believes that public interest is pursued through the interest of the public. Remember the famous statement by the former Chairman of the Federal Commission of Communications (FCC) under Reagan’s presidency, Marc Fowler, “the public’s interest...defines the ‘public interest’”.⁹ This model does not concern itself with concepts such as *the internal pluralism of the media*, and I believe that public interest is only guaranteed by the external pluralism resulting from a competitive market between different operators. Neither does it concern itself with content or its quality. In the field of electronic communications, it tends to grant all the power to large telecommunications firms and questions any obligations resulting from universal service and, directly, the concept of net neutrality, since this represents a duty for network operators that forces them not to discriminate any kind of content. On the other hand, there is a second model, the *social-liberal model of multimedia communication networks*, which sees the world of electronic communications and audiovisual communication from a different perspective: public interest cannot be reduced to the public’s interest, which is merely the aggregation and maximisation of a number of individual preferences and which, without essential values agreed by a specific community, makes it very difficult for citizens to live together in freedom and with as much equity as possible. This model defends the greater presence of public powers in regulation and in providing the service. Multimedia communication networks (MCNs) are more than economic goods: they are goods of a cultural, ethical and social nature. Electronic communications network operators must ensure missions of public interest. The media, especially public media, must ensure plural media content and quality service for society as a whole.

The ten regulatory principles I present stem from my personal belief that the best regulatory model for MCNs to serve the public interest is the social-liberal regulatory model. The aim is, while accepting the market economy (capitalism), to find formulas to correct the inequalities generated by free market operations. As Lionel Jospin would remind us: “We agree

with a market economy but not with a society dominated and controlled by its values”.¹⁰ A social-liberal model cannot be understood without a fundamental and guaranteed framework of freedoms (throughout) nor without also establishing stable frameworks that promote conditions of more equal opportunities for everyone. The best equilibrium between these two values will foster a just, free society, values which, ultimately, will always remain an inevitably utopian demand but nonetheless a goal for this model of society.

The most important theorists for the social-liberal model of the last fifty years have been J. Rawls and J. Habermas. Both philosophers have been the object of comparative studies¹¹ the core of which is the legacy of Kantian thought. These two thinkers have theorised that a society must aim for the maximum conditions of both freedom and equity. That freedom is not enough on its own and that it will be very difficult for humans to live together without striving for as equitable conditions as possible. However, without the real conditions of freedom, individuals are stunted and diminished. The critical rationality of Habermas and the public reason of Rawls come together to achieve this framework of co-existence. The main values we can consider as similar in the research by Habermas and Rawls and which have definitely affected social liberalism and social democracy are as follows: firstly, the affirmation of individual autonomy. This aspect is vital. Both probably share the same Kantian legacy that forms the basis of their respective doctrines and which refers essentially to the capacity of a rational individual to take his or her own decisions, informed and not conditioned. Secondly, the affirmation of freedom. A freedom that also has its most solid base in Kant: freedom is understood as the possibility to choose and is understood as an exercise of personal self-determination. Thirdly, the affirmation of equality. Equality that not only means all individuals are equal before the law but that also allows us to assume that society will establish mechanisms to guarantee a certain degree of equal opportunity in the access to and enjoyment of goods, of knowledge and of participation in public affairs. And, fourthly, the affirmation of a commitment to justice that seeks for compatibility and harmony between the three former principles. Rawls defines this as realistic utopia.

These four basic values (individual autonomy, freedom, equality and a commitment to justice) have helped to establish social liberalism or social democracy and form the basis of the regulatory principles I shall now present.

First principle: for a regulation that permits open, free, accessible networks. In defence of net neutrality, universal service and the radio spectrum as a public good

Eli Noam has recently proposed *regulation 3.0*.¹² Let us review the three regulatory generations: “Telecom 1.0” or “analogue” regulation in the audiovisual field, in a monopolistic structure and owned or controlled mostly by the government. Regulation 2.0, beginning in the early 1990s, stressing privatisation,

liberalisation and competition. But now, the fibre optic and electronic new generation communication networks (NGNs) are forming a more concentrated market with pride of place going to infrastructures and convergence (interdependence) between networks and content providers.

This first principle includes three essential concepts related to the regulation of multimedia communication networks (MCNs): the concept of universal service, the concept of net neutrality and, finally, the concept of radio spectrum as a public good.

As I have already mentioned, electronic communication networks have become the backbone of our societies. These networks directly sustain MCNs. Access to electronic communication networks has become a basic need, a fundamental condition to access work, to access the vast majority of the media, to be able to exercise our rights and duties as citizens. From this point of view, the impeccable logic of the first principle can be understood: seeing electronic communication networks as a universal service that the state must ensure for all citizens irrespective of their social condition or geographical location.

Net neutrality is related to this concept. Essentially, net neutrality means keeping access to networks and the content that circulates on them clearly separate, in the sense that all content (whatever it is) will be treated in the same way by the networks. This also means that networks will not be specialised but generalist, with multiple systems and platforms, *without discriminating* between the content agents operating on them. To date, the different neutral cores of the internet have been interrelated without discriminating any kind of content because the internet doesn't actually belong to anyone (and this is one of its huge assets), and its network must be set up based on a multitude of interconnected networks that have reached voluntary agreements of interchange and interconnection between the ISP networks. If the internet lost its status as a free network and content were conditioned by network management companies, we would find users, citizens being limited in their capacity to choose, and network management companies would select content for us. Consequently, the non-discrimination of content on the part of network management companies is a strategic priority for the future. What is at stake is content being selected by citizens and not by telecom or network management companies; ultimately, what we're interested in is the public and free nature of the internet.

Finally, this first principle also includes another strategic issue: the statute and management of the radio spectrum. Historically, it has always been a public good owned by the state, managed by the state and sometimes allocated via public procedures to private firms for a specific use, as is the case, for example, of private radio stations or mobile phone operators. Now we are witnessing a wave of neoliberal, privatisation that demands the spectrum should be able to be sold to private firms and no longer be publicly owned. I believe it would be a very big mistake to privatise the radio spectrum because this would involve the loss of a collective (public) good that is indispensable for citizen participation.

Second principle: for a flexible, simple regulation of media content. For criteria of linearity and influence

To begin with, the four actors involved in the complex world of multimedia communication networks should be clarified. Firstly, there are the intellectual copyright holders (creators, producers and managers). Be they creators, producers or collecting societies. Secondly, there are network managers (including former telephone companies and now also access providers, old cable companies that now manage their networks, and providers of access services, companies specialising in network access and, finally, satellite platform managers). Thirdly, there are information society service managers (including companies of chips, equipment, Microsoft hardware and software, search engine firms such as Google and Yahoo, content packaging service managers without editorial responsibilities, such as YouTube). Finally, in fourth place, there are *multimedia service providers*, which "provide" communication services with editorial responsibility.¹³ This definition is particularly based on the definition of audiovisual media service provides employed in the European Union's Audiovisual Media Services Directive, which states that a media service provider is "the natural or legal person who has editorial responsibility for the choice of the audiovisual content of the audiovisual media service and determines the manner in which it is organised".¹⁴ I prefer to use the expression "multimedia communication" instead of "audiovisual media" because I believe that, in this way, we can define more generally the subject that needs to be regulated. However, this Directive includes a division that is of particular interest to me: the difference between linear and non-linear services.¹⁵ This distinction basically separates classic broadcasters that access citizens without their intervention (linear services) and providers of media services that involve more interaction with citizens. Linear services also normally involve content defined by the provider that is "pushed" to viewers, without the possibility of this being changed, while non-linear services imply the provision of media content that citizens can "pull" from the network.

Regulating media content is justified essentially because of its impact on the public sphere. With the exponential multiplication of communication windows, i.e. multimedia providers, I believe that regulation and the action taken by regulators must essentially provide for two criteria: linearity and influence. If linearity is a primary criterion, the second is the influence of a specific provider on a certain audience. If a provider achieves a position of dominance and this position jeopardises pluralism, the public powers can establish measures (as we will see below) to safeguard this.

Third principle: for a regulation that guarantees freedom of expression and its equity in the public sphere. Pluralism and cultural diversity

Broadly speaking, there are two models of regulation for free-

dom of expression in western societies: the model established in the Philadelphia Convention inspired by the liberal-radical regulatory model, and the one established in the Rome Convention, of 4 November 1950, to protect human rights and fundamental freedoms, inspired by the social-liberal regulatory model.

The first amendment of the Philadelphia Convention (1791) ratified the idea of “freedom of speech”, which became one of the characteristic features the American Constitution. Freedom of speech is protected together with “freedom of the press”, added in order to guarantee written and printed documents as well as oral communication. The amendment states that “Congress shall make no law [...] abridging the freedom of speech, or of the press”. There is the belief that, without freedom of information and expression, and their necessary excesses, there is no democracy, nor is there a government of the people for the people. The social-liberal model is different. In effect, the Rome Convention of 4 November 1950 has been adopted in most European countries to protect human rights and fundamental freedoms, whose article 10 deals with freedom of expression. This article sees freedom of expression as including the freedom to hold opinions and to receive and impart information and ideas without interference by public authority, although television, cinema and radio might come under a prior regime of authorisation. However, exercising these freedoms might be subject to certain conditions, necessary restrictions in a democratic society. In fact, the laws of some European countries (such as Germany or France, among others, with Nazism and the Holocaust as their backdrop) have limited some aspects of the freedom of expression and have regulated the media, sometimes excessively.

In spite of the difference between these two models, I believe we must stress that, in these countries, freedom of expression is an unquestionable reality. For Norberto Bobbio, democracy is public power “in public”, its visible power.¹⁶ It's a central condition of democracy and the media fulfil an essential function in terms of the visibility of this public power “in public”. However, I believe there are some threats to the freedom of expression. Firstly, the concentration of ownership, which might entail a limitation to pluralism; secondly, the selection of subjects in producing information which, without a plural media system (also in prime time) would limit the rights of citizens to receive plural, true information; thirdly, the tendency to dumb down¹⁷ content on the part of operators and, finally, the worrying tendency to degrade information, most particularly in terms of the information's truthfulness or quality, which we shall deal with in the next point.

Although public powers have limited room to manoeuvre in the area of content *per se*, they must nevertheless guarantee equal conditions of freedom of expression. Equity implies a plural media model. When the issue of pluralism is dealt with, normally reference is made to internal pluralism and external pluralism. *Internal pluralism* supposes the existence of public media that ensure, by means of professional journalism¹⁸ and the obligation to assemble the different opinions they represent, the plurality of voices and opinions of a specific community. *Ex-*

ternal pluralism requires the existence of a sufficient number of private media that ensures different trends of a political, social, cultural nature, etc. that are present in society are represented, so that citizens can compare information passed on from the different ideological positions that exist. External pluralism is a tributary of the concept of the *marketplace of ideas*.

To ensure equity in internal pluralism, public operators and editors must respect this principle, based on the utmost truthfulness and honesty of information, by means of professional journalism that guarantees different opinions and sensitivities are expressed that reasonably represent the plurality of voices and opinions. Regarding the model of external pluralism, private operators and editors of media services that, within a specific audience, occupy a dominant or highly significant position (e.g. more than 25% of the audience) would be forced, by law, to guarantee the principles of internal pluralism, especially but not exclusively during election periods.

Fourth principle: for a regulation that safeguards programming quality. The challenge of the truthfulness and honesty of information

How the media have developed, especially linear media, has confirmed Neil Postman's well-known prophecy: “under the governance of television, [public discourse] has become shrivelled and absurd”,¹⁹ reminding us that our languages are “our media. Our media are our metaphors. Our metaphors create the content of our culture”.²⁰ The strength of media language is what creates our metaphors; in other words, our symbolism, our references, our imaginary, and it has had a very great effect on our culture today. A culture in which everything is liquid, evanescent, provisional, as we are reminded by Zygmunt Bauman.²¹ A world that, thanks to technology and science, is advancing at breakneck speed without direction, that makes acceleration prevail over eternity, novelty over tradition, speed over serenity. In this media culture, trash TV becomes ever greater: programming in which people dedicate themselves to loudly displaying, and in a crude way, their private lives, their love affairs and their quarrels, conveying values that degrade personal and civil life.

Regulation only has one tool to combat such degradation: the *watershed*. Regulation in this area can only recommend, advise, promote the social responsibility of linear multimedia service providers and can only, I repeat, impose rules that must be legally obeyed during the watershed. This is the only way. Bolstering the criteria used to interpret the watershed in order to ensure, at least, that from six in the morning to ten in the evening this kind of programme is kept off the TV grid.

Together with entertainment programming going off-track, the media are also undergoing a process of degradation in terms of the truthfulness and honesty of information. This aspect is probably the most delicate, difficult and controversial and also one of the most important of the tasks that social-liberal regulation should encourage over the next few years. This would be

an unthinkable criterion for those who defend liberal radical regulation, who are convinced that the best regulation in this case is inexistent regulation. And they are partly right: the risk of prior or posterior censorship (or self-censorship) is always hovering over the horizon and it is a threat that would jeopardise the basic, essential principle of communication, namely that of the freedom of expression and of information.

In any case, I believe we must insist that the social-liberal model of regulation of multimedia communication networks, with the maximum caution and good sense and ruling out any scenarios that might be seen as censorship, attempt to find mechanisms to tackle the three phenomena that threaten the truthfulness and honesty of information. Firstly, the ferocious competition in the market: communication, increasingly seen as a commodity, has broken with the rules that had guided a certain kind of journalism and media content, content that is becoming increasingly sensationalist and, as Croteau and Hoynes have analysed very well, prioritises information that is drama, negative, with events instead of issues, personalities instead of policies, fragmentation and superficiality, promoting strategy over substance.²² Secondly, the loss of credibility by so-called “professional” journalism, a journalism based on professional codes of verification and comparison of information which is increasingly being questioned and, finally, the ultraconservative drive in the US media and a little everywhere. In effect, since the 1980s, and as from the 1990s in radio and television and, most particularly, as from the phenomenon of “TV preachers”, some media have been set up that, from right-wing positions, permanently agitate sectors of public opinion, such as Fox News in the United States. These media rise up against all those ideologies and parties that do not identify with their values. Garton Ash states, in an article from 2010, that “For what America’s Fox News groupies say, in effect, is: “Tunnel vision? Yes, please! Unfair and unbalanced? We love it that way!” If anything, BBC-style impartiality is rather losing out to multiple partialities in media across much of the democratic world”.²³ In advanced industrial societies the right to freedom of expression has been firmly established but another, equally important right has been relegated to second place: the right of citizens to receive true information. Truthfulness does not only form part of an ethical requirement of news professionals but also of the precepts of the right to information. This will be one of the main issues over the coming years and will affect the very evolution of our democracies in the future.

Fifth principle: for a regulation that guarantees public multimedia operators. For a service that is public and civil in ownership and nature

Broadly speaking, there are two models of public multimedia service providers. One, following the European model, is initially a tributary of the BBC, of public corporations (originally monopolies) with the capacity to reach a large audience and a duty

of internal pluralism. This model is very much present in Europe and forms a major part of Europe’s social model and, to a certain extent, a guarantee of a democratic state. The positioning of the public media in the context of European public space constitutes a common factor in most countries in our European environment. Remember that Amsterdam Protocol 32, annexed to the European Community Treaty (incorporated in 1997 as part of the Maastricht Treaty), on the system of public broadcasting of member countries defines public service as any that is directly related to the democratic, social and cultural needs of each society and to the need to preserve media pluralism.

The other model is the United States one, namely the *public broadcasting system* (PBS), with media that are more of a public nature rather than public ownership. These media are rather civic or “community” in the sense that they are not owned by the administration but normally managed by civil associations with educational or civic aims. PBS at a national level and local PBS receive pitiful funding from public administrations, with financial contributions that come either from foundations or donations or directly from the audience. Their audiences are also small, although they have great credibility.

As a consequence of the liberalisation and deregulation occurring in the world of communications, both public provider models are being questioned particularly by private operators and by parties and social groups that identify more with more conservative positions and radical liberalism. However, these doubts also stem from the incapacity of public providers to act independently, employing criteria, always imperfect and with room for improvement, that strive for excellence in programming and information. Public providers face huge difficulties: very often the fact that they find it impossible to separate themselves from the political power has a direct effect on the provision of professional and plural information; their search for a large audience and leadership without giving up essential standards of quality; and the economic difficulties of public administrations and their famous cuts, leading to financing systems that do not foster stable programming. This context has a very direct impact on the two models of public providers.

However, public providers, especially European ones, if they are capable of becoming a benchmark for informative thoroughness, pluralism and quality in programming as a whole, are destined to experience a new historical phase. In a context of increasingly fragmented audiences, huge competition will arise in premium news and entertainment services. This will split the audience into two different areas: specialised, fragmented audiences and large audiences around linear services. Pluralism and quality programming are endangered precisely with large linear service providers. If they want to be significant and enjoy social legitimacy, public media must be present in this second sector of audiences, with good quality, professional entertainment, educational and informative programming, and with the most honest and plural news programmes possible. Public media must free themselves from under the wing of governments, of parties, of certain corporative interests of professional sectors that have

placed them within a closed, elitist trend. Without this mission and without this freedom, media that are public in nature and in ownership could lose their legitimacy. Public media that reproduce private media models would not make sense. The future lies in publicly owned media providers also being civic in nature. The future lies in ensuring that their ownership and nature are both public and civic.

Sixth principle: for a regulation that establishes transparent mechanisms of competition. *Limiting concentration if this weakens pluralism*

Given this convergence and concentration occurring among large multimedia communication networks, under the framework of social-liberal regulation, public powers must formalise public intervention aimed at achieving the objectives I presented previously to defend the public interest, something which will involve the legitimacy of democratic powers to establish mechanisms in order to prevent excessive concentration.

One of the academics that have done the most work on this area is C. E. Baker. In one of his reference books,²⁴ he proposes seven policy or regulatory measures to limit media ownership and promote real competition in the *marketplace of ideas*. These measures involve anti-trust laws, public power approval before mergers can take place, stopping non-media firms from entering the sector, ensuring editorial independence after a merger, allowing company editorial boards to play a part in merger processes and, finally, imposing on incumbent operators specific obligations to ensure pluralism. I believe all these measures to be very interesting: some are more possible while others are simply impossible.

In this current boom of multimedia communication networks, I believe that regulatory measures should focus on two objectives: the first, not to allow the same company to be present in two or more areas of MCNs. Previously we have reviewed the different actors present in MCNs: the same firm should not be able to have, in this respect and by way of example, control of electronic communication networks (and of access to them) and control over the production of the media content that circulates on these networks. This measure could guarantee, for example, the requisite principle of net neutrality. Or, alternatively, a company with a dominant position in the area of content should not be able to manage electronic communication networks. Secondly, and beyond the usual anti-trust policies, I believe that public powers should be legally able to impose pluralism measures when a multimedia provider assumes a position of dominance in a certain market and, consequently, has a very great capacity to influence public opinion.

Seventh principle: for a regulation that principally promotes the co-regulation and self-regulation of actors in the system. *Fomenting agreed, flexible regulation*

The concepts of self-regulation and co-regulation encompass the spirit of the European Union's White Paper on European Governance (2001) that establishes two basic criteria to strengthen governance. Firstly, *do less in order to do better*; i.e. regulate less but better and, secondly, the *diversification of modes of governance*. As we can see only too well, these principles are tributaries of the subsidiarity principle. Within the framework of these two "pillars", European legislation sees self-regulation and co-regulation as "'forms of interaction between Community processes and private actors' and the common feature has been considered to be 'the existence of some form of relationship between binding legislation and voluntary agreements in a particular area'".²⁵

In the complex world of multimedia communication network regulation, the need arises for more adaptable and flexible administrative regulation and also, if possible, decided via agreements in order to attend more effectively to the general interest. By *co-regulation* I understand a certain regulation when, based on a legal framework that is normally general in nature and promoted by the public administration, usually through regulatory authorities, an agreement is reached with all stakeholders regarding a precise, specific interpretation of the rules. Compliance of these rules will be supervised by the corresponding regulatory authority. On the other hand, I understand *self-regulation* to be when, in the absence of a specific legal regulation, the actors (be they companies, NGOs, associations, etc.) agree certain rules voluntarily, with the desire to respect them, at the same time establishing mechanisms to monitor whether these rules are being complied with.

Both types of regulation are destined to play an extremely important role in the future of regulating MCNs. A regulation that can permit adaptability, more flexibility within a complex situation of digital convergence.

Eighth principle: for a regulation that promotes digital education. *Beyond media literacy*

Media literacy is the capacity to analyse and filter the messages arriving every day from the media, such as news and entertainment. The idea is to help establish an ability to critically interpret the content that reaches us from the media. Two stages can be distinguished²⁶ in the development of this concept: an initial protective stage regarding the media, especially television, that believed there was dangerous, harmful content that formed part of the "low culture", and a second stage that aims, normally by incorporating the teaching of "media competences" in the ordinary curriculum of compulsory education, to provide young people with the means for critical interpretation, to understand the formats, messages, in short the content they receive via the screens that envelop their lives.

Lessig stresses the need for a *public-spirited grammar* to understand the new multimedia context and its repercussions, especially regarding children and young people.²⁷ In effect, with

the digital revolution and technological advances, the television medium has lost its status as a central object in media education. The new multiscreen and multimedia environment is substantially altering the communicative environment. This is one of the big changes in the last ten years and has led researchers in this area to speak of *multimedia skills* to broaden the concept of audiovisual skills, although one does not replace the other: "multimedia skills do not replace audiovisual skills, in the same way as they don't replace verbal skills. Quite the opposite: they require them".²⁸

In any case, I believe that the underlying issue has gone beyond even the need for multimedia skills. As a result of the far-reaching changes brought about by the digital revolution and by multimedia communication networks, the whole educational system needs to change and substantially. MCNs will gradually become a key element in educational processes and aspects that cannot be separated from compulsory education. What public powers need to do is to promote a real mutation of the compulsory educational system to include digital language and the extraordinary potential of multimedia communication networks. To this end, we urgently need a public policy that truly promotes a comprehensive change in the compulsory education system within the new digital environment.

Ninth principle: for a regulation led by independent, professionalised and convergent regulatory authorities

It is my belief that the regulatory authorities for electronic communication networks and the content of multimedia providers should have three basic principles: *independence, professionalism and convergence between networks and content*.

Regulatory authorities should be independent both from the public powers and the agents present in the media and telecommunications markets. Their independence must be guaranteed both in the way members of the authority are elected and also via mechanisms set up related to their funding. Very often the need for independence is stressed in relation to political powers and little is said in relation to economic powers. Both are necessary and difficult. With economic powers, regulatory authorities must maintain a relationship of dialogue and coordination while also keeping a requisite distance in order to be able to regulate, so that private interests do not affect the decisions taken. In the two *converging* areas, networks and content, the situation is not easy. In the area of multimedia content providers, because political interrelations between companies and political groups are very great; in the sector of electronic communication networks, because normally the large firms in the sector are so crucially important for the national economy there is a tendency to overprotect "national champions" in detriment to the logical rules of competition in an open, liberalised market.

Regarding public powers and the main parties that affect decision-making, a study of different mechanisms to elect regulatory authorities suggests that their members should be cho-

sen, after real sessions of parliamentary evaluation regarding the candidates' merits and qualifications, using supermajority mechanisms in the respective parliaments, forcing the different groups with a parliamentary presence to reach agreements in terms of the specific profiles and people that will be appointed to form part of the regulatory authority. Nevertheless, all these mechanisms are not enough to guarantee the independence of the authorities. These mechanisms are essential but not sufficient. Authorities find it much more difficult to act independently in cultures with an insufficient democratic culture or in a public sphere where private powers are very strong.

The professionalism of regulatory authorities is also related to the size of their organisations and structures. Some authorities have miniscule organisations, without resources, with few personnel, with real difficulties in minimally achieving their goals. Others, however, are excessive machines, with too many "advisors" and probably also with too many personnel, with unwarranted costs. Neither of these models is good and they affect the credibility and professionalism of regulatory authorities.

Professionalism also entails transparent decision-making mechanisms, both internally and externally. Externally, with consultation and dialogue when appropriate and, internally, with the transparency that guarantees the decision has been taken following the procedures and principles established in the corresponding rules, without undesirable interference.

However, and in the context of convergence between networks and content, I believe it is reasonable and necessary to move towards a *converging* model of a regulatory authority that allows the authority to largely follow the transformation being undergone by multimedia communication networks and, in accordance with the sector and public powers, to attempt to deploy regulations that are proportional, flexible, effective and reasonable.

Tenth principle: for a regulation that promotes minimal rules to ensure free flow and free internet and that helps to create a European space of multimedia communication networks

Thanks to the internet, MCNs have been created based on a decentralised, interconnected logic and the *free flow* of information has taken on the utmost importance. *Free flow* resembles *net neutrality*. It is no longer radically liberal to demand guarantees for freedom of expression and the generation and control of its sources: *free flow* has taken on a new strategic meaning for a more just and equal world. A veritable *free flow* can really help to redress information flows, as well as eliminate the rationale of certain hegemonic stories over other, weaker dependent stories.

To ensure real *free flow* and a *free internet*, I believe that the establishment of international binding agreements will become increasingly evident, a treaty that establishes minimal rules that effectively provide for the universalisation and neutrality (non-

discrimination of content) of networks. I am of the opinion that an international treaty is necessary, with its supervisory and management mechanisms, to replace the allocation functions carried out to date by ICANN. We are at the threshold of an increasingly multipolar world. In this multipolar world, international relations will be sustained both by homogeneous regional policies and by multilateral agreements between interstate bodies. Within such a context, and based on the premises I have explained at the beginning of this point, I believe this is the most likely future of the regulation of the *free internet*.

Precisely in relation to regional policies, and in accordance with the telecommunications directives of 2009, the new audiovisual media services without frontiers Directive of 2007, the BEREC²⁹ and, to a lesser extent, the EPRA,³⁰ the European Union has sufficiently powerful instruments to promote a more homogeneous regulatory policy and to truly construct a European space of multimedia networks. A powerful structure for a European space of multimedia communication networks could become a decisive instrument in the process of European integration.

Conclusions: multimedia communication networks and the public interest

The aim of these ten principles based on the coherent social-liberal regulatory model is to facilitate the construction of a more public sphere, in the hands of citizens, in which political processes can be carried out with the maximum citizen participation and knowledge. Public interest entails a very precise objective: citizens reclaiming public space.

However, this reclaiming of the public sphere comes up against a pressing reality. Commercial values and large transnational corporations (TNCs) have penetrated the public sphere too far and are swamping and transforming it. Democratic public powers are losing their legitimacy and invisible powers are emerging (very often called "markets") that have become the true powers in our societies. Without doubt, the lack of governance and disconcert caused by these changes in scenario push citizens away from public affairs and, as we have seen very recently, lead to increasing indignation among a large number of citizen groups. They also help to discredit politics and, inevitably, the multimedia.

Given the invisible nature of these new private powers, we must reinforce the power of democratic public powers. Liberal democracy is the public power "in public"; it is the visible power. It is a crucial condition of democracy. Visibility is a *sine qua non* for citizen access to public affairs. Networks can foster apathy and a weak political culture and, as Curran reminds us, "the market can give rise not to independent watchdogs serving the public interest but to corporate mercenaries which adjust their critical scrutiny to suit their private purpose".³¹ Without media that publicise public affairs, that provide visibility to the decisions taken by the powers, that search in the shadows for

the real mechanisms of power fashioned by large TNCs, citizens are unlikely to take part or exercise their rights.

In this respect, we need citizens to take back the public sphere. To achieve this, we need multimedia communication networks that are not subject to the rationale of the market and of large TNCs. The social-liberal regulatory model is effectively based on respect for freedom of expression and information and respect for a free market. Social-liberal regulation, with the principles I have presented, is an unconditional ally of democracy and its values. An ally to strengthen democracy, to foster conditions whereby citizens can take part in the public sphere and reclaim politics in the noblest sense of the word.

Notes

1. Castells 2003.
2. Castells 2003, 431.
3. Fuchs 2008.
4. Fuchs 2008, 340.
5. Carbonell 2011.
6. Castells 2011.
7. Bagdikian 2004, 4.
8. Carbonell 2011.
9. Fowler 1982, 51-58.
10. Lionel Jospin made this comment at the PS Congress in Grenoble, 24-26 November 2000.
11. HABERMAS, AQU AUDIOVISUALS QUE IMPLICD CAPACITAT...J. "Reconciliation through the public use of reason: remarks on John Rawls's political liberalism". *The Journal of Philosophy*, vol.92, no. 3, March 1995, p. 109-131. RAWLS, J. "Reply to Habermas." *The Journal of Philosophy*, vol.92, no. 3, March 1995, p. 132-180. HABERMAS, J.; RAWLS, J. *Debate sobre el liberalismo político*. Barcelona: Paidós, 1998. PEDERSEN, J. "Habermas and the Political Sciences: The Relationship between Theory and Practice". *Philosophy of the Social Sciences*, vol. 39, no. 3, September 2009, p. 381-407
12. Noam 2010, 33.
13. This division partly follows the criteria established by Barata 2009.
14. <http://europa.eu/legislation_summaries/audiovisual_and_media/l24101a_en.htm>
15. e) "television broadcasting" or "television broadcast" (i.e. a linear audiovisual media service) means an audiovisual media service provided by a media service provider for simultaneous viewing of programmes on the basis of a programme schedule. g) "on-demand audiovisual media service" (i.e. a non-linear audiovisual media service) means an audiovisual media service provided by a media service provider for the viewing of programmes at the moment chosen by the user and at his individual request on the basis of a catalogue of programmes selected by the media service provider".
16. "One of the clichés heard in all past and present debates on democracy is the assertion that is 'open government' by a 'visible power'. Almost every day you can come across plati-

- tudes to the effect that it is in the 'nature of democracy' for 'nothing to stay relegated to the realm of mystery'. Making a play of words, we might define the rule of democracy as the rule of public power in public". Bobbio 1986, 94. (N.T. In English, Bobbio 1987, 79)
17. CROTEAU, D.; HOYNES, W. *The business of media: corporate media and the public interest*. Thousand Oaks, CA [United States]: Pine Forge Press, 2006. p. 211
 18. I should like to note that I do not use the concept of information neutrality because I believe it is an inapplicable concept. An operator may attempt to act neutrally but the information and its treatment will never be neutral.
 19. Postman 1985, 16.
 20. Postman 1985,15.
 21. Bauman 2007.
 22. Croteau and Hoynes 2006, 211.
 23. GARTON ASH, T. "La lucha de poder en Internet" *El País*, 27 March 2010. http://www.elpais.com/articulo/opinion/Lucha/poder/Internet/elpepiopi/20100327elpepiopi_4/Tes. <http://www.guardian.co.uk/commentisfree/libertycentral/2010/mar/24/china-google-censorship-netizens-freedom>
 24. Baker 2007, 171-189.
 25. Senden 2005.
 26. OLIVA, M. "Panoràmica de l'educació en comunicació audiovisual." *Quaderns del CAC*, no. 25, 2007, p. 29-40. <http://www.cac.cat/pfw_files/cma/recerca/quaderns_cac/Q25oliva.pdf>
 27. Lessig 2005.
 28. Ferrés 2007.
 29. Body of European Regulators for Electronic Communications.
 30. European Platform of Regulatory Authorities.
 31. Curran 2005, 245.
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The challenges of internet neutrality

PIERRE-FRANÇOIS DOCQUIR

Senior researcher at the Perelman Centre for Legal Philosophy at the Université Libre de Bruxelles (ULB), Vice-president of the Conseil Supérieur de l'Audiovisuel (Belgium) and Partner of EU-FP7 MEDIADEM

pf@opiniondissidente.org

Abstract

By treating all sorts of content and applications in a neutral, identical way, the internet has become the most efficient and most democratic communication platform ever. Allegedly in order to avoid congestion and to support the development of new services, network operators have begun to prioritise a favoured share of digital traffic, thereby blocking or slowing down the rest of the information that circulates over the internet. The principle of net neutrality has been proposed as a reaction against such discriminatory treatment. Its exact scope is still being intensely debated, as is the effectiveness of its protection.

Keywords

Freedom of expression, internet, transparency, discrimination, regulation.

Resum

Internet, en tractar tot tipus de continguts i d'aplicacions d'una manera neutral, idèntica, s'ha desenvolupat com la plataforma de comunicació més democràtica i més eficient que mai ha existit. Suposadament, per tal d'evitar la congestió i per fomentar el desenvolupament de nous serveis, els operadors de xarxes han començat a donar prioritat a una part preferida del trànsit digital, bloquejant o alentint la resta de la informació que circula per mitjà d'internet. El principi de neutralitat de la xarxa s'ha consolidat com una reacció contra el tracte discriminatori. El seu àmbit d'aplicació precís, així com l'eficàcia de la seva protecció, continuen sent objecte d'intensos debats

Paraules clau

Llibertat d'expressió, internet, transparència, discriminació, regulació.

Because it supports the circulation of information and ideas, freedom of expression is nothing more than the beating heart of democratic societies and of democratization processes. Threats to the ability to nurture public controversies about government, economic powers and generally all issues of general interest automatically translate into threats to the political system that bases its legitimacy upon the participation and vigilance of free individuals. For the sake of democracy, freedom of speech guarantees the right of journalists, activists and citizens to "recourse to a degree of exaggeration, or even provocation" (ECrHR, *Steel & Morris v. United Kingdom*, 2005, §90) when they criticize public figures. Generally, freedom of expression protects the right to voice messages "that are favourably received or regarded as inoffensive or as a matter of indifference, but also those that offend, shock or disturb the State or any sector of the population" (ECrHR, *Handyside v. United Kingdom*, 1976, §49). Besides these classical teachings by the European Court of Human Rights, the protection of free speech aims at safeguarding the effectiveness of the circulation of information and ideas. Under article 11 of the European Charter of Human Rights, it expressly extends to guaranteeing the pluralism of the media. In its *Autronic* decision of 1990, the European Court

of Human Rights had affirmed that freedom of speech applies "not only to the content of information but also to the means of transmission or reception since any restriction imposed on the means necessarily interferes with the right to receive and impart information". Since then, the Court of Strasbourg has confirmed that freedom could not remain theoretical or illusory; instead, it should be "practical and effective": such a requirement has, for instance, been interpreted as meaning that an association or a small political party should be given access to airtime through the means of paid advertising, even if the broadcasting of their messages is against a legal prohibition of political advertising (ECrHR, *Verein Gegen Tierfabriken v. Switzerland*, 2001; *TV Vest & Rogaland PensjonistParti v. Norway*, 2008; Docquir 2002, 2011; Lewis 2009). In other words, European free speech law has integrated the idea that public debate is conditioned by the actual openness of the infrastructures of public communication.

The idea that democracy is undermined when communication platforms fall under exclusive control should be kept constantly at the back of the mind when we observe the current evolution of digital networks. It is incontrovertible that the importance of the internet as a platform of mass communication is constantly

growing. It has become the common location for an increasing number of services that people turn to on a daily basis, including the use of mobile devices of all sorts. It is driving major changes in the media ecosystem. It has played a part in the organization of large-scale social movements. However, the flows of file exchanges over peer-to-peer systems, of the streaming of music and high definition movies, of cloud computing and online gaming in virtual worlds exert a strong pressure on the available bandwidth. Congestion is the threat that might put an end to the impressive rise in the network of networks. There is indeed little point in developing a service that consists of streaming movies to subscribers if the bits of cinematographic information reach the audience too slowly to provide an agreeable viewing experience. Launching a raid on a dragon's cave is not going to be much fun if the guild's members have to wait long minutes in front of a still screen before the result of each of their moves finally loads. Neither is online cooperation in virtual meetings going to prove very efficient under such circumstances. At a time when the digital economy is seen as a major factor to economic development (EU Commission, *Digital Agenda for Europe* 2010), it is generally not disputed that a strong and efficient internet is wanted, one that could sustain the expected evolution of evermore bandwidth-greedy services operating on an ever-growing number of appliances.

In a briefly sketched presentation, it can be said that two complementary solutions may avert the risk of network congestion. First, the network operators may consider how to increase the efficiency of the management of existing structures. Instead of letting herds of bits roam the digital seas freely (as is the case with the original design of the internet), networks could either block or prioritize certain categories of content in order to alleviate the burden of traffic. In other words, blocking means that network operators could exclude one category of content (for instance, peer-to-peer trafficking, as in the Comcast case (see below)). In the case of prioritization, they would allow some of the traffic to move smoothly and rapidly over a designed high-speed lane on the information highways, while the less time-sensitive content would have to find its own pace in the shared lane. The risk inherent to both traffic management solutions resides in the discrimination between services. To be sure, a network owner will be tempted to favour the fast circulation of its own services, thus driving its competitors out of the market by removing or slowing down their content (for instance, a company that distributes cable television and internet over its network might be encouraged to block its competitors' IPTV flows or direct them onto the slow lane). This, as some argue, would mean the end of the great innovation processes the open internet has so far supported. According to others, a pragmatic analysis of traffic prioritization should ensure that the shared lane remains of a satisfying quality.

The second answer to congestion is to improve the infrastructures. Not surprisingly, the question of who should support the costs of building new networks is not easily solved, because said costs are high and because they have to be negotiated be-

tween a large number of actors of varying sizes, that are entangled in a complex web (so to speak) of relationships. Individual consumers subscribe to local internet access providers (for fixed or mobile access), but the interconnection of networks depends upon arrangements between larger industrial operators. Consumers also enter into contractual relationships with content producers and service providers (hosting services, search engines and social networks) which cooperate more or less willingly in the distribution of information while they also compete for advertising revenues. Directly or through subsidiaries, companies may of course be active in more than one segment of this chain. From an economic point of view, competition has to be safeguarded and prices should be fair. In modern democracies, the universal availability of some services may add further requirements to the economic analysis of the evolution of communication platforms.

This is a quick outline of a current controversy that has become known as the debate of Net Neutrality. To be sure, what exactly the principle of Net Neutrality is may be hard to express: as the Economist put it, "Ask five geeks and you may well be given six definitions of it" (Dec. 29, 2010). It can nevertheless be said that, at its core, lies the idea that network operators should not be authorized to apply any form of discrimination to the content and services they carry. According to the often-quoted father of the concept, Professor Tim Wu, "*Network neutrality is best defined as a network design principle. The idea is that a maximally useful public information network aspires to treat all content, sites, and platforms equally. This allows the network to carry every form of information and support every kind of application.*" (Wu, website). In order to shed more light on the issues that have barely been touched upon so far, the first part of this article will need to dive – although not too deeply – into the technical particulars of how the internet works. The second part will focus on the reactions of regulatory authorities and legislators, both in the United States and in Europe. At the time of writing, the Netherlands had been on the verge of adopting the first European legal consecration of Net Neutrality.

1. From "best efforts" to efficient fast lanes

The circulation of data on the internet follows a specific strategy that differs from that of classical telephone lines, where a direct connection is established between interlocutors and maintained during their whole conversation. On the internet, no dedicated connection is set up between the computers that exchange data. Be it a short email message or a high-definition video, every kind of content travels the same way: the information is cut into small parts and encapsulated into "packets", each of which is stamped with its destination (as identified by its unique IP address). Each packet then travels on its own before the information is reassembled upon arrival. While all packets need to be gathered at destination for the communication to be successful, they do not necessarily follow the same

road. This is why the internet is said to work according to the “end-to-end” principle: the output of communication only occurs (through the protocols that organize and translate the flows of data) at the endpoints of the network. Computers that manage the circulation of packets are called “routers”: they ensure the transmission of data from one computer to another across a vast array of interconnected networks. In the original design of the internet, routers treat each packet independently and direct it onto the best possible route to the next router until it reaches its final destination. When confronted with a flow of data that exceed the capacities of the network (i.e. congestion), a router will stock the packets and treat them in the order of reception (“first come, first serve”). In other words, routers do not prioritize any category of packets; instead, they process the flows of data in a non-discriminatory manner, aiming at best possible use of available capacity. Each router figures the most efficient route for a packet at the time of transmission but it can guarantee neither the effective delivery nor its perfect timing. This is why the internet is said to work on a “best efforts” model. In that context, “intelligence” (that is, the implementation of complex functions) is not found in the core of the network but rather at its ends, in the interconnected computers. In other words, the complex functions are organised in the upper layer of the internet (i.e. applications or content) while the inferior layers of the internet are supposed to neutrally transport all data.

To be sure, the “best efforts” internet proved to be a tremendously efficient platform for communication and innovation before the threats of congestion started to cause a commotion. In the event of a breakdown, the circulation of information can easily bypass the affected part of the network by simply routing packets through other roads, which makes the whole platform very resilient. The openness of the network to any kind of application or content has supported the continuous development of new services. Innovating entrepreneurs have benefited from the opportunity to have their new products distributed on an equal footing with pre-existing large businesses. The internet has been celebrated as empowering individuals with unprecedented capacities of expression and indeed the internet has been a driving factor of democratization (Cardon 2010). The actual consequences of the internet’s growth may be hard to tell – after all, it is an ongoing revolution – but isn’t it for instance just amazing that an article signed by a debutant blogger or the leading editor of a world-famous news magazine should circulate digitally under exactly the same conditions? The same observation maybe repeated about celebrated artists and newcomers – and it remains equally valid about the most frequently used search engine, or social network, and their emerging (future) competitors.

Even the strongest supporters of net neutrality admit that some ordinary traffic management measures are necessary to address security threats and congestion (for instance, see La Quadrature 2009). Controversies really start when it comes to practices that go beyond these two admittedly legitimate goals – for instance, when an internet access provider slows down all packets identified as peer-to-peer file sharing (see the Comcast

case, below) or when VoIP (“voice over IP”, i.e. services similar to Skype) is blocked on mobile networks. Some insist that a growing number of services distributed over IP networks, such as IP television, VoIP or online games, require more than a “best effort” at delivery: for those new services to work convincingly, a certain “quality of service” must be guaranteed by the network. These services should be “managed”, which means they should be given priority over other types of packets. From a pragmatic viewpoint, the existence of managed services translates into the creation of fast lanes dedicated to specific types of content, while the rest of the data would circulate according to the traditional best-efforts method on probably the meanest share of the network. According to this perspective, the open internet as we have known it appears to shrink, possibly eroding to the point of losing all its appeal.

However, it should be noted that a given quality of service seems to be almost impossible to guarantee on the internet. The internet is a collection of interconnected networks of varying sizes and capacities: in order to be effective, the quality of service – just as the principle of net neutrality, for that matter – would need to be enforced on all the networks. In order to improve the quality of delivery of their services, the major content and service providers have begun to use “content delivery networks” (CDN): these parallel networks maintain cache copies at the points of connection between the internet “backbone” and the local networks. They offer a solution for faster internet communication by shortening the road that packets have to travel: instead of letting the requested information travel on a best-efforts basis from a distant computer situated on another continent, the CDN will inject a copy at the connection point that is the closest to the destination. Obviously, CDNs are a very expansive solution (CDNs are owned and managed by large companies such as Akamai, Limelight or Google) and only serve selected segments of the content that circulates on the internet.

It has been mentioned that the circulation of data on the internet depends on the collaboration between a large number of network operators. However, one specific category plays an important role: the local internet access providers do not only allow individual users to access the internet but also allow the service and content providers to access their clients (in economic terms, they are said to operate in a two-sided market). The strategic decisions made by the local internet access providers – those who control the “last mile” or the “local loop” of the larger network – may therefore deeply impact the availability of information or services. If your access provider has a policy of slowing down YouTube or of blocking peer-to-peer, you won’t be able either to download videos from this website or to launch your favourite P2P software, no matter how available these services are elsewhere on the internet. On the other hand, a new business that has invented a potentially disruptive web service may see its chances of success quickly crumble to dust if it cannot reach its audience because the local access providers just won’t let them. Controlling effective access to the public at large is a precious asset that the operators are tempted to

transform into a source of income by charging content/service providers. If they reserve the best part of their networks for the development of managed services that are sold to their customers at a higher price, access providers could also progressively degrade the quality of the traditional, neutral internet. In such a case, they would be artificially creating a situation of scarcity in capacity in order to maximize their profits. That is why the traffic management policies and the pricing policies of national telecoms or cable industries are of particular importance in the net neutrality debate.

The integration of content/service providers with telecommunication companies (i.e., vertical concentration), be it in capitalistic links or through contractual provisions, increase the incentives for local access providers to “manage” the circulation to the detriment of their competitors. Indeed, there are examples of access providers sorting out the flows of packets that their clients are allowed to send or receive (see for instance BEREC 2010). Such concerns have triggered reactions from the regulatory authorities and the legislators.

2. The legal approaches to net neutrality

The debate first emerged in the United States of America and notably grabbed public attention in April 2010 when a federal court of appeal granted Comcast, a large access provider, a victory over the Federal Communication Commission (FCC). Although the court mostly contested the legal authority of the FCC to regulate broadband services, the decision has been perceived as a serious blow to the regulatory authority’s attempt at securing the principle of net neutrality.¹ The facts were these. Comcast had begun to slow or even block all traffic related to BitTorrent, a peer-to-peer file-sharing network. Such management of traffic constituted an infringement of rules adopted by the FCC in 2005. In an effort “to encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet”, the regulatory authority had stated four principles:

- “consumers are entitled to access the lawful internet content of their choice.
- consumers are entitled to run applications and use services of their choice, subject to the needs of law enforcement.
- consumers are entitled to connect to their choice of legal devices that do not harm the network.
- consumers are entitled to competition among network providers, application and service providers, and content providers.”

Obviously, such notions as “lawful internet content” or the “needs of law enforcement” are subject to interpretation, the details of which shall not be discussed here. However, these four rules are a clear indication that the FCC realized the importance of keeping the circulation of packets neutral. In 2010, these were confirmed and completed by the FCC’s Open Internet Order, which contained the following rules:

- i. **“Transparency.** Fixed and mobile broadband providers must disclose the network management practices, performance characteristics, and terms and conditions of their broadband services;
- ii. **No blocking.** Fixed broadband providers may not block lawful content, applications, services, or non-harmful devices; mobile broadband providers may not block lawful websites, or block applications that compete with their voice or video telephony services; and
- iii. **No unreasonable discrimination.** Fixed broadband providers may not unreasonably discriminate in transmitting lawful network traffic.”

The Open Internet Order is only going to enter into force when it is published in the Federal Register, an event that is expected to occur in September 2011 at the earliest and that will most certainly trigger legal action by network operators. It is also worth noting that the principle of net neutrality weighs less heavily on mobile networks. From President Obama’s strong support to the Republicans’ opposition, net neutrality has definitely become a politically complex battle.

On the European side, reflexions at a supranational level (Council of Europe and European Union) have now given way to national discussions, most importantly in the course of transposing the reformed telecommunication regulatory framework into national legislation. The *Declaration on network neutrality* issued by the Committee of Ministers of the Council of Europe in September 2010 insisted on the “public service value” of the internet and expressed support for the principle of net neutrality. It admitted that traffic management may be acceptable but “(exceptions to this principle) *should be considered with great circumspection and need to be justified by overriding public interests*”. Similarly, the European Commission had expressed its attachment to “preserving the open and neutral character of the internet” in a declaration attached to the reformed Telecom Package in December 2009. In this document, the Commission announced its intention to monitor closely the implementation of the recently reformed telecom directives by Member States and underlined that “the impact of market and technological developments on net freedoms” needed to be kept under watch. They also insisted that competition law could offer remedies.

In the new European regulatory framework, “the ability of end-users to access and distribute information or run applications and services of their choice” is one of the policy objectives that the national regulatory authorities (NRS) should promote.² This regulatory principle is further supported by two elements, the combination of which could allegedly “address many of the concerns that have been expressed in the context of net neutrality to date” (BEREC, 2010). First, transparency requirements are imposed on access providers. Under Article 20(1) b of the Universal Service Directive, they should specify “in a clear, comprehensive and easily accessible form” (a) whether they will limit access to or the use of certain services, (b) the minimum service quality level they offer, (c) the management

measures they adopt in case of congestion, and (d) the restriction they impose on the use of terminal equipment.³ The second element consists of the possibility to impose “quality of service requirements” on network operators: under Article 22(3) of the Universal Service Directive, “Member States shall ensure that national regulatory authorities are able to set minimum quality of service requirements on an undertaking or undertakings providing public communications networks”.

The impact of the 2009 Telecom Package on net neutrality warrants three observations. First of all, it is important to note that fixed and mobile communication networks are treated equally, an orientation that diverges from the American approach. It must be acknowledged that the revised framework has not strongly protected the principle of net neutrality: instead, it mostly relies on competition and on the freedom of the individual consumer to choose between competing offers. Transparency, it is assumed, will help the market deploy its magic. Whether the range of offers presented to the public will consist of access to the open internet at a reasonable price is not guaranteed *per se*. And finally, the European framework relies on Member States to establish the minimal quality of internet access. Traffic management and prioritization measures being in no way forbidden, it remains to be seen what the ordinary “best efforts” internet should at the very least offer. Since the national regulatory authorities (NRAs) are entrusted with this complex task, the minimal quality requirements might vary from State to State; there is also the risk that the monitoring carried out by the Commission and BEREC⁴ in this respect⁵ may bring the higher national requirements down towards the lowest commonly agreed level of “quality requirements”.

After completing a public consultation on net neutrality, the European Commission held a summit on “The open internet and net neutrality in Europe” in November 2010. However, its most recent declarations confirm that it is not willing to adopt a firmer regulatory stance to protect the traditional internet. Since it sees the economic growth of European telecommunication companies as instrumental to its Digital Agenda for 2020, the Commission seems to be ready to admit traffic management measures as well as the sale of access to clients to service and content providers.⁶ It should be added that, on June 15, 2011, the Council of the European Union adopted “Draft conclusions on net neutrality”. In this document, the Council sees “*the need to maintain the openness of Internet while ensuring that it can continue to provide high-quality services in a framework that promotes and respects fundamental rights such as freedom of expression and freedom to conduct business*”, a declaration that has been commented by NGO EDRI as a positive step (EDRI-gram). Regarding net neutrality, the draft conclusions underline the need to “*preserve the open and neutral character of the internet and consider net neutrality as a policy objective*” while the Council also emphasizes that users should be free to “*create, distribute and access content and services of their choice*”. Further developments at an EU level are expected to happen at the end of 2011, when the Commission will publish

the results of BEREC’s investigations into traffic management practices.

In this context, legislative and regulatory initiatives at a national level will be of particular importance. The legal obligation to transpose the revised telecommunication directives before May 25, 2011 has helped to ignite and nurture debate in the Member States.

Although it is not possible to review all national situations here, three developments are worth mentioning. In France, an interesting report to the National Assembly has formulated the project to enshrine the principle of net neutrality in legal provisions. In Belgium, at the time of writing, the Senate was examining legislative proposals to the same effect. But it is the Netherlands that seem to be leading the race. With a legislative proposal that attracted much attention worldwide, the Dutch Parliament seemed to be on the verge of adopting the first net neutrality laws in Europe.⁷ The law – it still needed to be approved by the Senate – would prohibit internet access providers from interfering with the traffic of their users. It would prevent providers from charging additional fees for the use of innovative web services such as VoIP. On the whole, the Dutch law would give a clear and firm signal in favour of the protection of open, unrestricted access to the internet.

3. Closing comments

In June 2011, in a joint *Declaration on Freedom of Expression and the Internet*, the international rapporteurs on freedom of expression⁸ have insisted that “*there should be no discrimination in the treatment of Internet data and traffic, based on the device, content, author, origin and/or destination of the content, service or application*”, and that “*Internet intermediaries should be required to be transparent about any traffic or information management practices they employ, and relevant information on such practices should be made available in a form that is accessible to all stakeholders.*” Their Declaration situates the core principles of net neutrality within a broader defence of the openness of the internet, a communication platform whose “*transformative nature*” has significantly enhanced the ability of billions of people to access information and voice their concerns, and that holds the “*power of the Internet to promote the realisation of other rights and public participation, as well as to facilitate access to goods and services.*” It is indeed the democratic importance of the internet that justifies the need to guarantee a sustainable open and unrestricted access to the most efficient communication platform ever. The European revised framework only ensures a weak, minimal protection that has not included a rule on non-discrimination. Its effectiveness will depend upon the will of national authorities. There is no doubt that transparency requirements are a sound component of any policy that aims to regulate communication networks, but transparency won’t be a spontaneous move on behalf of network operators. The enforcement of the European

transparency rules is likely to be a hard task for the regulatory authorities. Indeed, for the sake of credibility and efficiency, the NRAs should themselves show a strong commitment to making their efforts transparent in order to raise awareness of the public at large regarding their monitoring activities. More precisely, monitoring the implementation of net neutrality could become an important field for cooperation between internet users and regulatory authorities.⁹ After all, isn't our traditional internet all about open collaborative processes?

Notes

1. *Comcast Corp. v. FCC*, 600 F.3d 642
2. See Article 8(4)(g) of the Framework Directive.
3. See also Article 21(3) of the Universal Service Directive.
4. The Body of European Regulators for Electronic Communications (BEREC) was established by Regulation (EC) No. 1211/2009 of the European Parliament and of the Council of 25 November 2009. It replaces the ERG (European Regulators Group) ; its missions are to "promote cooperation between NRAs and between NRAs and the Commission" and to "contribute to the development and better functioning of the internal market for electronic communications networks and services, by aiming to ensure a consistent application of the EU regulatory framework for electronic communications." BEREC has no legal personality and it is not a Community agency.
5. Article 22(3) of the Universal Service Directive provides for a consultation process involving the Commission, BEREC and the NRAs, in order to ensure that national minimum quality of service requirements do not adversely affect the functioning of the internal market.
6. See <http://owni.fr/2011/07/13/lobby-operateurs-bruxelles-europe-internet/> (accessed July 11, 2011) and <http://www.numerama.com/magazine/19229-la-commission-europeenne-entree-la-neutralite-du-net.html>
7. For a presentation and a translation into English of the proposals, see <https://www.bof.nl/2011/06/27/translations-of-key-dutch-internet-freedom-provisions/> (accessed July 18, 2011).
8. Joint declaration by the United Nations Special Rapporteur on Freedom of Opinion and Expression, the Organization for Security and Co-operation in Europe Representative on Freedom of the Media, the Organization of American States Special Rapporteur on Freedom of Expression and the African Commission on Human and Peoples' Rights Special Rapporteur on Freedom of Expression and Access to Information.
9. In this respect, see the NEUBOT project of Politecnico di Torino, a research project on monitoring net neutrality (<http://www.neubot.org>).

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Protecting personal data and social networks: media obligations

ARTEMI RALLO

Professor of constitutional law at the Universitat Jaume I and former director of the Spanish Data Protection Agency (2007-2011)

rallo@dpu.uji.es

RICARD MARTINEZ

Lecturer in constitutional law at the Universitat de València. Former coordinator of the Studies Area of the Spanish Data Protection Agency (2007-2011)

martiner@uv.es

Abstract

Social networks present a new scenario for citizen engagement and for defining a new model of the citizen-media relationship but, in order to operate in this medium, it's essential to take into consideration the data protection regulations in force. This article explores both the basic principles governing this area for the media and for social network users, as well as the conflicts that may arise from inadequately exercising freedom of expression.

Keywords

Social networks, privacy, data protection, freedom of expression, right to information.

Resum

Les xarxes socials presenten un nou escenari per a la participació ciutadana i per definir un nou model de relació entre ciutadans i mitjans de comunicació, però per operar en aquest mitjà és fonamental tenir en compte les normes vigents en matèria de protecció de dades. Aquest article explora tant els principis bàsics que regeixen aquesta matèria per als mitjans de comunicació i per a les persones usuàries dels espais en xarxes socials, com els conflictes que poden derivar d'un exercici inadequat de la llibertat d'expressió.

Paraules clau

Xarxes socials, privacitat, protecció de dades personals, llibertat d'expressió, dret a la informació.

1. The media on social networks

Social networks¹ probably constitute the greatest new thing in the last decade for the media as they provide an interactivity that had been unimaginable until very recently. Traditionally radio was the medium that could regularly open up the microphones in real time to listeners. But this depended on the time available on the programming grid and the nature of the programme. Today, any medium worth its salt has set up a social network, either as a corporation or by opening up its most significant programmes to user interaction.

The possibilities of putting your followers centre stage multiply through this procedure, ranging from real-time conversation to provocation. Interaction on social networks therefore helps to integrate users within the programme's dynamic, boosting their loyalty, taking the pulse of public opinion in real time and, given the viral nature of these media, multiplying the impact of each broadcast.

In addition to the phenomenon of social networks is the im-

pact of the so-called *blogosphere* which actually pre-dates them.² A opinionated citizen journalism (which is not always thorough) has been born and traditional media have striven to incorporate blogs on their own internet sites, either directed by their professionals or open to citizens.

At least two questions arise in this context from a legal point of view. What regulatory requirements are imposed on media companies that decide to set up a social network (here we will essentially focus on the fundamental right to data protection)? And, secondly, how will conflicts be tackled related to the publication of information or opinions by users themselves?

2. Data protection on social networks

To apply data protection rules it is fundamental to clearly understand the context. As noted by Castells,³ the evolution of the internet encourages communities to be formed, both by transferring pre-existing social groups to the virtual world and also by

creating worldwide interest groups. Moreover, a large number of services related to these are aimed at leisure and to encouraging aspects directly related to personal or private life, such as sharing photographs, listening to music or sharing videos, or expressing opinions via brief tweets of 140 characters.⁴

There are also a number of elements of a technical nature, whose future influence is, today, unforeseeable. Firstly, ubiquity is one of the most notable characteristics of internet services. Mobile phones⁵ have become a complete manager and organiser with functions that range from personal agendas to computer-controlled management in the so-called “internet of things”,⁶ including the adoption of decisions based on added value services such as GPS. The telephone is now a space for leisure and shared play, a tool to access social networks and a provider of access to interactive digital TV services.⁷

On the other hand, also from a technological point of view, the web universe is no longer passive but has become a highly dynamic social space. Users can express their opinions, obtain the opinions of others and show themselves as they are. It is a complex environment in which applications are not always the main provider⁸ and users can be both betatesters and developers at the same time.

Web 2.0 therefore goes much further. It is not merely a series of more or less advanced programming resources but entails the birth of a social universe belonging to the network society and populated by communities that can move from what is closer to any kind of horizontal grouping (professional or social groups), vertical grouping (teamwork spaces) and even “informal” grouping without the limits of space or time. That is probably why people say Web 2.0 “is an attitude and not precisely a technology”.⁹

2.1 Identity is the core element

In the information society, the currency is personal information.¹⁰ As everyone knows, when someone surfs the internet, they leave an economically profitable trail. Thanks to the internet’s operational routines (the IP tracking, basic information regarding the applications stored on our computers, cookies and browser logs), profitable user profiles can be produced to establish general browsing profiles with a certain market value.¹¹

Following a browser trail, even without identifying the user specifically, provides extraordinarily valuable information if this is contextualised. Users unconsciously reveal preferences of all kinds; indicate what matters interest them, which graphics attract them or which publication they prefer. These electronic fingerprints are used to facilitate browsing and make it quicker, to present advertising in a certain way and carry out market studies, or to offer clients that have been identified personalised services adapted to how they surf the internet.

Whereas the internet presents a challenge in terms of protecting private life from the point of view of the basic and “traditional” way it works, this becomes more complex with regard to social networks, where generic profiles of a user or fictitious identities are not enough. In order to be effective on a social

network, to achieve its aims, an individual must identify him or herself. And in this context identity is extremely valuable because, thanks to this, the information, message or advertising can be personalised. There is the capacity to establish or identify circles of trust¹² and, through this, the viral nature of messages multiplies the efficiency and effectiveness of the processing.

In no way should we doubt the contribution of social networks to public debate; the recent examples of democratisation in countries in North Africa are proof enough of this. But this does not mean that the actions of providers and users themselves should not be subject to rules.¹³

Consequently, the first question we should ask ourselves is whether there are principles that can be applied to the internet and to social networks in particular. And the answer is in the affirmative. The issue here, essentially, is therefore not whether basic applicable principles exist, as they evidently do, but rather whether they are truly taken into account in the initial design of the applications.¹⁴

2.2 Applying rules regarding data protection

Processing personal information constitutes a key element in social networks. And this is the case both from the perspective of the provider of services, whose business is based precisely on the benefits produced by exploiting this information, as well as from the perspective of users, who display their information and thereby expose themselves personally and professionally. Consequently, the right *par excellence* in this context must be the right to data protection.

2.2.1 The Lindqvist standard

Without any doubt, the case of Bodil Lindqvist provides a top level reference when attempting to establish criteria to apply data protection rules to social networks.¹⁵ In this respect, it can be said that the Court of Justice has clearly defined the criteria to be followed in the case of personal data being processed on a website.

It is important to remember that behaviour consisting of publishing a photo, video or written text on a social network does not differ at all in material terms from the Lindqvist case: it is exactly the same situation. Technology has merely advanced and this can now be done without any prior technical knowledge and in a cooperative environment. In the Lindqvist case, the Court of Justice concluded that the conditions had been met to apply Directive 95/46/EC, in other words:

1. *That processing existed.*

“27. The answer to the first question must therefore be that the act of referring, on an internet page, to various persons and identifying them by name or by other means, for instance by giving their telephone number or information regarding their working conditions and hobbies, constitutes ‘the processing of personal data wholly or partly by automatic means’ within the meaning of Article 3(1) of Directive 95/46/EC”.

To this end, it referred to the processing categories that (and we should stress this) include disclosure by transmission and dissemination, actions that fall within the concept of transfer.

“25. According to the definition in Article 2(b) of Directive 95/46, the term “processing” of such data used in Article 3(1) covers “any operation or set of operations which is performed upon personal data, whether or not by automatic means”. That provision gives several examples of such operations, including disclosure by transmission, dissemination or otherwise making data available. It follows that the operation of loading personal data on an internet page must be considered to be such processing”.

2. That the exception of private life was not applicable.¹⁶

“47. That exception must therefore be interpreted as relating only to activities which are carried out in the course of private or family life of individuals, which is clearly not the case with the processing of personal data consisting in publication on the internet so that those data are made accessible to an indefinite number of people”.

3. That the conflict between the right to data protection and the freedom of expression or right to information must be resolved by the competent authority or national judge.

“90. The answer to the sixth question must therefore be that the provisions of Directive 95/46 do not, in themselves, bring about a restriction which conflicts with the general principles of freedom of expression or other freedoms and rights, which are applicable within the European Union and are enshrined *inter alia* in Article 10 of the ECHR. It is for the national authorities and courts responsible for applying the national legislation implementing Directive 95/46 to ensure a fair balance between the rights and interests in question, including the fundamental rights protected by the Community legal order”.

Consequently, if we literally apply the conclusions of this case to the “wall” of a social network, it’s evident that, under certain conditions, there will be processing subject to the Directive. And the same thing happens when a photograph is tagged or a video uploaded concerning identified or identifiable people.

In practice, as we will now see, the exception of *private life* is only applicable when the space on the social network is configured in such a way that it is only visible to a group of friends and is expressly authorised. If not, the Lindqvist case would apply fully.

2.2.2 The Opinion of the Article 29 Working Party

In Opinion 5/2009 on online social networking,¹⁷ the Working Party establishes the conditions for applying Directive 95/46/EC¹⁸ based on the consideration that, in a legal sense, social networks are information society services. It is evident that, in order for this kind of service to work, personal data need to be processed firstly in the registration and then to configure the

user’s profile. On the other hand, and since the ultimate purpose of a social networking site is to interact with other users, each of them provides information in the form of descriptions, opinions, photographs, etc. and the social networking site provides them with tools (lists of users, private messaging, email, etc.) that facilitate this and require some kind of processing to be carried out.

From this point of view, there are no doubts regarding the applicability of the Directive. For this reason, the Working Party focuses its efforts on thoroughly analysing each of the elements of this processing. Along these lines, there is one aspect that is in no doubt: the Directive’s provisions regarding data protection apply in most cases to the providers of the social networking services, even when their head office is outside the EEA.¹⁹ Nevertheless, the complexity of this kind of service means that criteria must be established to identify other possible responsible parties. These would be external providers of applications when they process data and could also be users themselves under certain conditions:

- When the social networking site is used as a collaboration platform for an association or company.
- Secondly, according to the Working Party, when access to profile information extends beyond self-selected contacts, in particular access exceeds the personal or household sphere when all members within the social networking service can access a profile or when the data can be indexed by search engines. Equally, if users take an informed decision to extend access beyond their self-selected “friends”, they assume the responsibilities of a data controller. In practice, the same legal regime is applied as when any person uses other technology platforms to publish personal data on the internet.
- Lastly, the application of the household exemption is also constrained by the need to guarantee the rights of third parties, particularly with regard to sensitive data.

Finally, the Working Party repeats that there may be cases in which the household exemption does not apply but where rights prevail such as the freedom of expression, the right to information or freedoms of artistic or literary creation. Similarly, the application of general provisions of national civil or criminal law cannot be excluded.

2.2.3 Contributions by the Spanish Data Protection Agency

The Spanish authority has carried out several actions in this area, promoting and taking part in studies,²⁰ issuing reports and applying the disciplinary regime. We should review those documents that in some way help to define the institution’s position in this matter. In this respect, the document entitled *Recomendaciones a usuarios de internet 2009* [Recommendations to internet users 2009] should be read attentively. This document represents an interesting change in perspective. In previous editions, users were conceived as passive subjects whose data were processed. However, the recommendations

contained in points X and XI of the 2008 text reveal a new focus. Firstly, there is the initial premise that normal use of Web 2.0 resources may determine the processing of data and images of people who have not consented and the authority recommends taking special care in this area.²¹

On the other hand, the text also covers users who consciously use Web 2.0 resources for informative purposes and, referring to this, the *Recommendations* of point twelve are very concrete and clearly aimed at raising the awareness of users regarding the conditions for exercising the right to information on the internet.²²

In addition to this promotional activity, the Agency has also adopted decisions with legal significance insofar as its reports and decisions serve to guide the action of providers. It has issued a report on this area, 615/2008,²³ regarding such a common issue as the actions of individuals who share, via their websites, photos of their children carrying out out-of-school activities.

Firstly, the report analyses if the conditions exist to apply the household exception. Regarding this aspect, it notes two conclusions. The first, with reference to the Bodil Lindqvist case, is that this exception does not apply because we are not in the area of the private or family life of individuals when information is projected beyond the domestic sphere, something that, with images on the internet, is established as “there is no limitation to accessing these”. A second criterion, in line with the aforementioned Opinion 5/2009, when considering which evidence points to the existence of processing subject to the Directive, concludes that “for us to be considering the exclusion established in article 2 of the Spanish Data Protection Act, what is relevant is the fact that this is an activity that befits a personal or family relation, comparable to what might be carried out without using the internet, so that those cases do not apply in which publication is carried out on a page that is freely accessible by any person or when the high number of people invited to contact this page is indicative of the fact that this activity extends beyond what is appropriate for this sphere.

Consequently, the application of what has been said so far related to this case supposes that the Spanish Data Protection Act shall not apply when the activity of the consulting party is limited, under the terms in question, to the personal or family sphere. On the other hand, when the exclusion established in article 2 of this Act does not apply, i.e. when the activity exceeds this sphere, this rule shall be applicable and consent must be obtained from the parents or from the minors themselves when they have the capacity to give it, both to obtain the image and to publish it on the website, insofar as the latter constitutes a transfer or disclosure of data of a personal nature as defined by article 3 j) of the Spanish Data Protection Act, i.e. as ‘Any disclosure of data carried out by a person other than the interested party’”.

In conclusion, the configuration of the web space is highly relevant for the purpose of determining the applicability of data protection legislation.

Lastly, we should refer to different opinions given within the context of disciplinary procedures and/or protection of rights

that affect typical Web 2.0 services. Firstly, there are those cases where images are issued on portals that offer video files. In this area, the Spanish Data Protection Agency (AEPD) has employed the doctrine of article 29 of Working Party Opinion 4/2004, of 11 February, regarding the processing of personal data via video camera surveillance, and has concluded that “data comprising of image and sound are personal”. The identifiable nature of these data “can come from a combination of the data with information from third parties or even from applying, in the individual case, specific techniques or devices”. Based on this premise, it concludes that:

“The recording and reproduction of images from passers-by in the street, which constitute data of a personal nature, and their publication on “*YouTube*”, accessible by any internet user, is subject to the consent of the data subject, in accordance with that established by article 6.1 of the Spanish Data Protection Act”.²⁴

This position has been further defined and adapted to the reality of the internet by prioritising the exercise of the right to cancel as a means of resolving conflicts, reserving disciplinary procedures for more serious cases.²⁵

2.3 Recommended actions

Given the statements by courts and authorities on the protection of personal data, one preliminary conclusion seems evident: a medium that opens up a space on Facebook must comply with some basic normative principles in this area.

Having studied six of the main media,²⁶ and excepting any possible author error, only one of these media -Cadena SER- has any kind of rules²⁷ for its users:

“Rules of participation

The aim of the Facebook pages managed by Cadena SER is to establish a direct relationship between the radio station and its different programmes and fans.

To achieve this, the following rules of participation are established, in addition to the rules of Facebook. The latter can be consulted at <http://www.facebook.com/terms.php?locale=EN>:

- All opinions are welcome but avoid insults and language that incites hatred, discrimination, that promotes illegal activities, that is offensive, racist, violent or xenophobic. Publish your opinion but respect the rest of the users and Cadena SER.
- Write your comments just once and avoid using capitals, which are considered to be shouting on the internet. Abusive writing will be treated as spam.
- In the case a subject is put forward for debate, keep to this subject. The internet has many other places where you can discuss whatever you want.
- The Facebook pages managed by Cadena SER do not accept advertising of companies, events of any kind or political propaganda. Nor the promotion of other Facebook groups or pages or other social networks that do not

belong to Cadena SER or other companies in the Prisa Group.

- Do not share content protected by copyright without the copyright holder's permission.
- Do not publish personal data, as they will be visible to all visitors.²⁸

The team administering the Facebook pages managed by Cadena SER reserves the right to erase any message or content that does not comply with these rules or to block any users if they repeatedly violate them, and is not liable for any breach or for the consequences this may involve”.

As can be seen, these are the policies of use for a forum and they only allude vaguely to the protection of personal data.

However, if we consult the space produced by the Spanish Data Protection Agency²⁹ in order to hold an international conference, we can read the following information:

“When you become a fan of this page you consent to the following: 1) to your personal data being processed in the Facebook environment in accordance with its <<http://www.facebook.com/policy.php?ref=pf>> privacy policies; 2) the AEPD accessing the data contained in the fan list; and 3) to news published on the event appearing on your wall.

The AEPD will not use the data for other purposes nor to send additional information. If you want to withdraw, you merely have to click on the hyperlink that appears bottom right “Unlike”. You can exercise your rights to access, rectify, cancel or oppose at any time by sending a written document to Agencia Española de Protección de Datos, Secretaría General, C/ Jorge Juan no. 6, 28001 Madrid or by sending an email to privacyconference2009@agpd.es, accompanied by a photocopy of the official document that identifies you. Should you exercise your rights by email, the document must be digitally signed in the message or a scanned official document attached.

In the context of this processing, you must take into account the fact that the Spanish Data Protection Agency can only consult or withdraw your data as a fan. Any rectification of the data must be carried out by yourself by configuring your user. Email address: ciudadano@agpd.es”.

What is the reason for this significant difference? It is evident that, when a company acts on a social network, it must comply with the provisions of the law in force.³⁰

We can differentiate between different scenarios, although the most common is when a user registers on the most widely used sites, i.e. Facebook, Tuenti, Twitter and possibly YouTube. This is a hybrid situation as, on the one hand, the organisation is acting as just another user of the social network and, on the other, it assumes legal liabilities for the action carried out. So, when a page is opened on a social network, the organisation will act as what the Spanish Data Protection Agency and jurisprudence have defined as a *controller*:

“Also resulting from the repeated sections of art. 3, as has

already been stated, is the differentiation of two responsible parties according to whether the power to decide is directed at the data file or the data processing per se. So, the file controller is the body that decides to create the file and its application and also its purpose, content and use; i.e. the body that has decision-making power over all the data recorded in this file. The data controller, however, is the body that determines the specific activities of a certain data processing, albeit in a specific application. This covers all those cases where the power to decide must be differentiated from the material performance of the activity involved in the processing”.³¹

As a consequence of the aforementioned ruling, article 5 of Royal Decree 1720/2007, of 21 December, approving the Regulations for implementing Organic Act 15/1999, of 13 December, on the protection of data of a personal nature (LOPD), has defined this figure as:

“q. File or data controller: natural or legal person, of a public or private nature, or administrative body, that alone or together with others takes decisions regarding the purpose, content and use of the processing, although it may not materially carry this out. Bodies without legal personality can also be file or data controllers when acting as differentiated subjects.”

Consequently, the circumstance defined in the ruling and precept occurs in this case. This is processing in which the user, when opening his or her account, does not have any control over the file owned by the social network. As a result, the obligations resulting for the organisation regarding compliance with the Spanish Data Protection Act are limited and, for example, there is no duty to register a file or to take out a data access contract on behalf of third parties.

It should be assumed that, in this kind of case, use is limited exclusively to joining the social network and using the tools on it and there is no decision-making capacity regarding the structure, arrangement or material management of the data other than that of the social network. Moreover, other conditions must be met to be able to state that a body is acting merely as a user:

- Behaving as a user that interacts in the social network system.
- Not incorporating personal data in own resources.
- Not entering into any agreement regarding the provision of services to develop or maintain the space with the social network provide.
- Not entering into any agreement with the provider regarding additional services, such as an analysis of the behaviour, tracking or production of user profiles, associated or not with the issuing of behavioural advertising.³²

In this case, in order to ensure suitable compliance with the Spanish Data Protection Act, the medium must:

- Comply with the duty to inform so that, as there is processing, the principles and obligations are respected resulting

from article 5 of the Spanish Data Protection Act. The following is therefore recommended:

- Place brief information in the space of the account provide by the social network with the basic information on the identity and location of the person responsible, the intended purpose and how rights are exercised.
- Set up a welcome procedure for new friends with an email message that includes this information.
- Hyperlink to corporate privacy policies.

And, as stated by the Article 29 Working Party in Decision 5/2009 mentioned previously, particularly provide information on:

- Usage of the data for direct marketing purposes.
- Possible sharing of the data with specified categories of third parties.
- The use of sensitive data.
- Integration within the environment of third party applications that record and/or process the data of “friends” when this integration depends on the wishes of the user responsible for the account.

Secondly, it should be noted that the legitimate cause for processing personal data in this area is consent, as in article 6 of the Spanish Data Protection Act.³³ It should be understood that this consent is given when someone is asked to “become a friend of” or when they accept an invitation. The following should be taken into account:

- Consent only affects the data of the person joining, never those of third parties related to the “friend” whose profile is open.
- The possible existence of exceptions to the consent rule must be examined case by case and fully respecting the regulation. Request?
- An open profile “does not imply consent”. It should be remembered that, in accordance with that established by the Spanish Data Protection Agency in its Report 0342/2008, the internet and therefore social networks are not publicly accessible sources.
- Including data, such as email addresses, in the systems themselves constitutes processing subject to the Spanish Data Protection Act and the fact that these data are accessible in a social network environment does not necessarily legitimise their processing.
- The guarantee of the rights of “friends” is of limited content. The rights to access, rectify, cancel and oppose processing apply. Notwithstanding this:
 - The content of the right to access will be defined by the possibilities offered by the network and by the capacity to access information from the profile of each specific user. Consequently, it will practically be enough to offer, to anyone exercising this right, images of the screens showing which data is accessed.
 - The right to oppose, rectify and cancel will be modulated. The data controller should comply with this regarding

those aspects of application that are under its control, such as modifying or eliminating a comment from the wall itself. The rectification of aspects related to the user’s profile is normally exercised before the provider. Cancellation and opposition, when this consists of “unfriend”, can be exercised by both parties.

- There must be limits regarding the use of data. The principle of purpose constitutes an impassable limit and must be defined by:
 - The social network’s conditions of use, which might prohibit specific uses.
 - The information available and effectively provided in “Add Friend”.
- The principles of security and secrecy apply for any user regarding the data controller but must be adapted to the specific conditions of the environment and will only affect any processing effectively carried out.

3. Social network user opinions and information

To complete our examination of issues related to the use of social networks, we should also look at what is undoubtedly the essential aim of these sites: to encourage users to express their opinion freely.

In principle, and given the nature of the environment, in other words space on a medium related to citizens exercising the rights of article 20 of the Spanish Constitution, the conditions exist to exclude the application of the rules protecting personal data.³⁴ In this respect, the Spanish Data Protection Agency has usually recognised the prevalence of the rights of article 20 of the Spanish Constitution.³⁵ Notwithstanding this, it should be noted that, at least in one case, the High Court has considered the right to data protection prevalent, when considering that the information published did not require the accompaniment of the image of one of the victims of a terrorist attack, applying a judgement of proportionality.³⁶

When the body processing personal data is a user on his or her own wall, the Agency usually redirects the question to the procedure to protect rights of article 18 of the Spanish Data Protection Act and orders the data to be cancelled by the person responsible for the social network.³⁷

All these criteria help us to comprehend the legal nature of the opinions posted on a medium’s wall based on two types of judgement. Firstly, a judgement concerning the content will help us determine whether the user is exercising his or her right to inform or express his or her opinion and whether the conditions exist for this right to prevail over the rights of third parties. In other words, whether the information is based on true facts or perceived as such, and has public relevance to shape public opinion. The second criterion is based on determining the liability of the person owning the wall. Here the Agency’s point of view is framed within the line defined by Act 34/2002, of 11 July, on the services of the information society and electronic com-

merce, and stated by Opinion 5/ 2009, considering the owner of a social network as the provider of information society services.

This is substantially different from the liability of the publishing body, for example, in the traditional “letters to the editor”. Spain’s Constitutional Court Sentence 3/1997 summarises very accurately the criterion of the court that, based on the fact that there is a prior examination of the letters published, requires in some way the application of a double filter regarding the identity of the person sending the letter and the relevance of the content when identification is not reliable. It therefore considers the publishing body is responsible for this content.³⁸

In short, and using elementary analogue reasoning, in those internet spaces where content is directly developed by the owner and space is provided for participation, liability would be focused on verifying the identity of the reader publishing his or her opinion. This doctrine would not be applicable in the context of a social network since the way in which it functions prevents, today, any identification and, moreover, the speed when publishing comments and the number of these comments makes it impossible to control, except after the event.

For this reason, as stated by Opinion 5/2009, in this case there is the provision of an information society services subject to that established in Act 34/2002, of 11 July, on information society services and electronic commerce. Consequently, when Spanish legislation applies, the liability of the provider regarding this document must be governed by articles 16 and 17 of this Act. Two elements must therefore occur for there to be liability:

- Effective knowledge. This shall occur when a claim is notified by means of the social network’s complaints space or when an authority, such as the AEPD, demands some kind of action.
- Absence of diligence in removing the information.

In any case, this is a complex situation that transfers some ethical responsibility to the media. As democratisation has occurred through the extension of the possibility to exercise the freedom of opinion for any citizen, and as the media themselves provide these spaces on social networks, it would be most advisable to encourage the training of users via ethical codes or rules of use.³⁹

This is particularly necessary when specific regulations are absent. Neither Organic Act 1/1982, of 5 May, on the civil protection of the right to honour, personal and family intimacy and one’s own image, nor Organic Act 2/1984, of 26 March, governing the right to rectify, offers suitable solutions to resolve these problems. Clear evidence of this is that citizens are increasingly exercising the right to cancel established in article 16 of the Spanish Data Protection Act for this kind of case.

Conflicts in this area go far beyond social networks and have spread to citizen journalism and blogs and to the so-called *right to be forgotten*. Directive 95/46/EC authorised member states to develop this area in the sphere of the media. Perhaps the time has come to insist that this development is essential.

Notes

1. This article is largely due to a previous monograph. RALLO LOMBARTE, A.; MARTÍNEZ MARTÍNEZ, R. (coord.). *Derecho y redes sociales*. Cizur Menor (Navarra): Civitas, 2010.
2. CEREZO, J.M. *La blogosfera hispana: pioneros de la cultura digital* [Online]. Biblioteca de la Fundación France Telecom España, 2006. <http://fundacionorange.es/areas/25_publicaciones/publi_253_9.asp> (Available: 19/03/2010)
3. Very graphically, Castells points out:
“(The internet) is an extension of life as it is, in all its dimensions, and with all its modalities. Moreover, even in role-playing and informal chat rooms, real lives (including real lives on-line) seem to shape the interaction on-line.”
CASTELLS, M. *La galaxia Internet. Reflexiones sobre Internet, empresa y sociedad*. Barcelona: Areté, 2001, p. 139. The chapter in this book on virtual communities is particularly useful to understand the capacity of networks to define community spaces (p. 137-158).
4. See <<http://twitter.com/>>
5. See MARTÍNEZ MARTÍNEZ, R. “¿Interrogantes jurídicos ante los smartphone?” *Actualidad Jurídica Aranzadi*, no. 822, p. 13.
6. See <<http://www.theinternetofthings.eu/>>
7. When true interactivity is produced by digital terrestrial television, the processing of personal data by this channel will multiply. MARTÍNEZ MARTÍNEZ, R. “Los contenidos audiovisuales en la multidifusión digital. Nuevos retos para la protección de datos personales”. In: FRANCÉS I DOMENECH, M. (coord.). *Hacia un nuevo modelo televisivo. Contenidos para la televisión digital*. Barcelona: Gedisa, 2009, p. 83-95.
8. Particularly relevant in this respect are the findings by the Canadian authority regarding data protection in the investigations carried out on Facebook:
148. According to Facebook’s developer blog (June 4, 2009):
“The growth we have seen on Platform has been tremendous. Today there are over 350,000 active applications on Platform from over 950,000 developers living in more than 180 countries. These range from simple applications created by single users to share with their friends to impressive businesses employing hundreds of people and reaching tens of millions of users every month and generating tens of millions of dollars of revenue. For example, close to 10,000 applications have 10,000 or more monthly active users, and more than 100 applications have more than 1 million monthly active users.”
149. When users add an application, they must consent to allow the third-party application developer to have access to their personal information, as well as that of their friends. Moreover, as CIPPIC has correctly pointed out, unless users completely opt out of all applications and block specific applications, they are not given the option of refusing to share their names, networks, or lists of friends when friends add applications. [...]

- 1) Facebook had inadequate safeguards to effectively restrict these outside developers from accessing users' profile information, along with information about their online friends.
- 2) Facebook was not obtaining users' meaningful consent to the disclosure of their personal information to application developers when either they or their friends add applications."

DENHAM, E. *Report of Findings into the Complaint Filed by the Canadian Internet Policy and Public Interest Clinic (CIP-PIC) against Facebook Inc. under the Personal Information Protection and Electronic Documents Act. July 16, 2009.* Office of the Privacy Commissioner of Canada. PIPEDA Case Summary #2009-008
 <http://www.priv.gc.ca/cf-dc/2009/2009_008_0716_e.cfm> (Available: 16/04/2010), p. 38 and 94.
9. See <<http://www.maestrosdelweb.com/editorial/web2/>>
10. See ALAMILLO DOMINGO, I. "La identidad electrónica en la red". In: RALLO LOMBARTE, A.; MARTÍNEZ MARTÍNEZ, R. (coord.). *Derecho y redes sociales*. op. cit. p. 37-53.
11. See SCHWARTZ, P.M. "Internet privacy and the State". *Connecticut Law Review*, vol. 32, 2000, p. 815-859.
12. In fact, this is Google's most recent proposal with its own social network, Google +:

"The first of the tools or services included is Circles, a tool that helps to create circles of people through which their members can debate, publicise and share all kinds of information only with defined groups of contacts, such as family, school friends, workmates, teammates, friends, etc."

 <<http://www.puromarketing.com/16/10334/google-project-nueva-social-google-llega.html>>
13. Regarding those who state that it is impossible to impose legal limits on the phenomenon of the internet, and without ignoring the fact that specific actions are required from the legislator, we must consider whether, in the context of information and communication technologies, it is necessary to modulate or adapt the rules as, in the area of the internet, regulations are not projected on instruments but on their use and design. See TRIÁS SAGNIER, J. "Informática y privacidad. ¿Se pueden poner puertas al campo?" *Cuenta y razón*, no. 63, 1992, p. 98-101.
14. Along these lines, over the last few years further studies have been carried out on the methodologies of *Privacy Impact Assessment* and *Privacy by Design*, whose aim coincides with the one stated here: providers and programmers must take into account, in their design, a priori, methods that guarantee the right of users to a private life is respected.

As Lessig has pointed out, programmers have the capacity to define operational rules for the environment that effectively act as regulations and therefore the possibility to define operational modes that guarantee compliance of the principles included in legal regulations. LESSIG, L. *El código y otras leyes del ciberespai*. Madrid: Taurus, 2001 and LESSIG, L. *Code version 2.0*. Basic Books. New York: Perseus Books Group, 2006.

Available at: <<http://pdf.codev2.cc/Lessig-Codev2.pdf>>

There are increasingly more documents in this area, although the reference methodology is that of the British Information Commissioner's Office.

 - ICO. Privacy Impact Assessment (PIA) handbook (Version 2). 2009.
 <http://www.ico.gov.uk/upload/documents/pia_handbook_html_v2/index.html> (available: 22/03/2010).
 - Homeland Security (USA) Privacy Impact Assessment EINSTEIN Program.
 <http://www.dhs.gov/xlibrary/assets/privacy/privacy_pia_eisntein.pdf> (available: 22/03/2010).
 - Treasury Board of Canada Secretariat. Privacy Impact Assessment - Policies and Publications.
 <http://www.tbs-sct.gc.ca/pubs_pol/ciopubs/pia-pefr/siglist-eng.asp> (available: 22/03/2010).
 - Privacy by Design <http://www.privacybydesign.ca/>.

Lastly, see WARREN, ADAM. "Privacy Impact Assessments: the UK experience". *31 Conferencia Internacional de Autoridades de Protección de Datos y Privacidad. Madrid, 4-6 de noviembre de 2009.* <http://www.privacyconference2009.org/program/Presentaciones/common/pdfs/adam_warren_speech_en.pdf>
15. As will be remembered, Ms. Lindqvist was a Swedish catechist who, at the end of 1998, used her personal computer to set up various websites so that her fellow parishioners preparing for their confirmation could easily obtain information that might be useful. The pages in question contained information about Mrs Lindqvist and 18 colleagues in the parish, sometimes including their full names and in other cases only their first names. Mrs Lindqvist also described, in a mildly humorous manner, the jobs held by her colleagues and their hobbies. In many cases family circumstances and telephone numbers and other matters were mentioned. She also stated that one colleague had injured her foot and was on half-time on medical grounds. After being fined and appealing, the Swedish court consulted the Court of Justice regarding the conditions for applying Directive 95/46/EC.

Ruling by the Court of Justice of 6 November 2003 on case C-101/01. Request for a preliminary ruling presented by Göta Hovrätt (Göta Court of Appeal).
 <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2004:007:0003:0004:EN:PDF>>
16. Personal data protection rules do not apply, as established by article 4 of the Regulations implementing the Spanish Data Protection Act, to processing "carried out or maintained by natural persons while carrying out exclusively personal or household activities.

Processing shall only be considered as related to personal or household activities when it is related to activities belonging to the context of individuals' private or family life".
17. ARTICLE 29 WORKING PARTY. *Opinion 5/2009 on online social networking*. (01189/09/EN WP 163). (Available 31/03/2010)
18. Directive 95/46/EC, of 24 October, on the protection of indi-

viduals with regard to the processing of personal data and on the free movement of such data.

<http://europa.eu/legislation_summaries/information_society/data_protection/l14012_en.htm>

19. The party has pointed out that there is processing that cannot be carried out without resorting to using a user's own computer, in general by employing cookies, so that media would be used that are in European territory. See WP148, Opinion 1/2008 on data protection issues related to search engines.
20. AGENCIA ESPAÑOLA DE PROTECCIÓN DE DATOS. INTECO. *Estudio sobre la privacidad de los datos personales y la seguridad de la información en las redes sociales online*. Madrid, 2009.
21. Users are guided by two specific recommendations:
 - "Take particular care when publishing audiovisual and graphic content on your profiles, especially if images related to third parties are going to be uploaded.
 - Do not label audiovisual content with the real identity of the people involved or offer third party data on your site without their consent."
 And a reminder:
 - "When you publish a photo or write in the blog, you might be including information about other people. Regarding their rights."

<http://www.inteco.es/file/aiYG6hA575_aXKiMJlKt_g>
22. "The resources made available to us by computing and the internet allow us to carry out a lot of activities on the internet. Thanks to these, we can edit audio and video files and share them with the whole world, publish our photographs and share them, organise virtual activities, arrange dates and mass meetings and carry out citizen journalism. [...]"
 - Do not publish information that does not meet the requirements of truth, public interest and respect for the dignity of people and in particular regarding young people and children.
 - Do not spread rumours or unverified information.
 - Rectify or remove information when someone affected justifiably requests this.
 - Never publish information that endangers the family and in particular children, nor friends, neighbours, etc.
 - Take special care regarding the publication of information regarding the locations where the user or a third party is at any time. This might endanger users, given that it allows possible offenders to know, at any time, where users are, what they are doing and where they are going, which might entail a serious risk to their person.
 - Do not record or publish images, videos or any other kind of recording without the consent of those concerned.
 - Do not process the personal data of third parties, especially when disclosed to third parties without the knowledge or consent of those affected.
 - When applicable, comply with the obligations of the Organic Data Protection Act.
 - Inform users about their duties in the procedures of subscription and registration.
 - Draw up and publish ethical codes that guarantee minimal

rules of action for users or communities on social networking sites."

23. <http://www.agpd.es/portalwebAGPD/canaldocumentacion/informes_juridicos/common/pdfs/2008-0615_Inaplicaci-oon-LOPD-a-actividad-de-particulares-que-comparten-fotos-de-sus-hijos-a-trav-ee-s-de-Internet.pdf>
24. See PS/00479/2008, available at <http://www.agpd.es/portalwebAGPD/resoluciones/procedimientos_sancionadores/ps_2008/common/pdfs/PS-00479-2008_Resolucion-de-fecha-30-12-2008_Art-ii-culo-6.1-LOPD.pdf>.
25. "It's true that the reality of the internet requires an interpretation of the principle of consent that avoids a strict application that would paralyse it or turn it into a network brimming with violations of the personal data of millions of people that are easily accessible by merely using a search engine and of data for which prior consent is not required.

It is therefore not convenient to interpret the requirement for consent in a maximalist way but the principle must be considered which, when legal regulations offer various solutions and all other alternative formulas have been exhausted, is the most appropriate, if this is possible, for which reason the use of the right to cancel data with the aim of stopping the processing of personal data must prevail. This procedure would enable the speedy correction of the data included in order to redress this situation prior to defence due to violation or to the bringing, if applicable, of a disciplinary procedure, which would be punitive in nature if this were not made to disappear.

This premise must not prevent the fact that, in specific cases - particularly sensitive data or rights affected of particular seriousness, as well as breach of professional secrecy - it may apply to use the disciplinary procedure in order to sanction especially serious conduct that does not come under the internet rules, as occurs in the case brought". See PS/00508/2008.
26. Cadena SER, Cadena COPE, Onda Cero, Televisión Española, Telecinco and laSexta.
27. <http://es-es.facebook.com/cadenaser?sk=app_214923178538944>
28. Underlined by the authors.
29. <<http://es-es.facebook.com/AEPD?sk=info>>
30. See VILASAU SOLANA, M. "Privacidad, redes sociales y el factor humano". In: RALLO LOMBARTE, A.; MARTÍNEZ MARTÍNEZ, R. (coord.). *Derecho y redes sociales*. op. cit. p. 66-71.
31. See the Decision of 5 June 2004, of the Third Administrative Appeals Chamber of the Final Court of Appeal on differentiating between the file controller and the data controller, confirmed by the Decision of 16 October 2003 of the First Administrative Appeals Chamber of the High Court, given for appeal number 1539/2001. Available at: <<http://bit.ly/oDvST6>>.
32. Behavioural advertising is based on the continual observation of individuals' behaviour. Its aim is to study the characteristics of this behaviour via actions (repeated visits to a specific site,

interactions, keywords, production of online content, etc.) to develop a specific profile and thereby provide users with advertisements tailor-made to the interests inferred from their behaviour. Behavioural advertising normally involves the collection of IP addresses and the processing of unique identifiers (using cookies). The use of these devices helps to isolate users, even though their real names may not be known. Moreover, the information gathered refers to the characteristics or behaviour of a person and is used to influence this specific person. This profile is accentuated when we take into account the possibility that profiles are linked at all times with directly identifiable information provided by users, such as the information provided when registering.

We should note that here a technologically available possibility is being defined. The decision whether to use such techniques corresponds to editors, advertisers and advertising service providers.

See ARTICLE 29 WORKING PARTY. *Opinion 2/2010 on online behavioural advertising*. 00909/10/EN WP 171, available at <http://bit.ly/dsAN9F>, and PEGUERA POCH, M. "Publicidad online basada en comportamiento y protección de la privacidad". In: RALLO LOMBARTE, A.; MARTÍNEZ MARTÍNEZ, R. (coord.). *Derecho y redes sociales*. op. cit. p. 354-380.

33. See ARENAS RAMIRO, M. "El consentimiento en las redes sociales on line". In: RALLO LOMBARTE, A.; MARTÍNEZ MARTÍNEZ, R. (coord.). *Derecho y redes sociales*. op. cit. p. 117-144.
34. Another thing would be the improper use of personal data by social network users on their own walls, which in some cases might determine liabilities regarding personal data protection. For example, by publishing images or comments with personal data in a private environment of a social network without the consent of the people affected.
35. See case no. E/00871/2005, <<http://bit.ly/nx7oMt>>.
36. "The image, therefore, is a piece of information that comes under Organic Act 15/99 but a detailed examination of the case shows that, although the images are not good quality, it can be understood that the processing of the data of the image has been excessive, taking into consideration the fact that it is not covered by the consent of those affected (there is no evidence that they were aware of the images' publication) and neither is it covered by the freedom of information and, in any case, it seems that an disproportionate use has been made of the image as personal information since the newsworthy nature of the information was sufficient without the need to include direct images of the sick people. Consequently, the hearing must continue regarding the possible use of the data of the image without justification". Sentence of 9 July 2009, by the First Administrative Appeals Chamber of the High Court, given in appeal number 325/2008.
37. See proceedings no. TD/00690/2009. Available at <<http://bit.ly/n9DwdR>>.
38. "C) In particular, regarding those cases when the medium authorises the publication of a text from a person entirely unconnected thereto, we have specified that "the duty of diligence

of the newspaper's Director involves the verification of the person's identity who figures as the author of the letter, before authorising its publication", as is habitual practice. Adding that, if this specific diligence were not possible, "the following would not be duly determined, respectively: the exercise of freedom of expression of a person unrelated to the medium, which this makes possible by publishing the letter, and the right related to the newspaper to inform its readers of this opinion"; and this would also suppose "that the right of readers to receive true information would be affected, guaranteed by art. 20.1 d) of the Spanish Constitution". Verifying the identity of the person who has written the text therefore helps "this person to assume his or her liability should the letter constitute an offence", given that, otherwise, "the door would be opened to the creation of spaces immune to possible violations of the constitutionally guaranteed right to honour" [STC 336/1993, legal ground 7, B)].

3. However, the above doctrine does not necessarily result in the decision that the action of the medium authorising the publication of a "letter to the editor" from a person that is not identified involves, in all cases, the former's liability and that, for this purpose, verification would be enough that this specific diligence has not existed. When the issue is to hear a possible violation of the right to honour of a third party via an unrelated document published by the medium, what is decisive is not only the fact of the publication but to determine, attending to the content of this document, whether this fundamental right has been violated or not.

In effect, when authorising the publication of an external text whose author has been previously identified, it is the latter who will assume any liability that may result from this if its content injures the honour of a third party. However, the situation is very different if the external text is published without the medium knowing the identity of its author, as in this case it does not constitute an action that may be divorced from that of its publication by the medium, in accordance with the doctrine stated in STC 159/1986. So that, on authorising the publication of the text in spite of not knowing the identity of its author, it must be understood that the medium, because of this, has assumed its content. This entails a dual consequence: firstly, exercising the freedoms recognised and guaranteed in art. 20.1 this will have to be examined, exclusively, in relation to the medium, given that the writer of the text is unknown. Secondly, whether the medium will ultimately be liable for the text if its content has exceeded the constitutionally protected sphere of the freedom of information and, if applicable, freedom of expression, injuring the honour of third parties or, alternatively, if it has been respected". STC 3/1997.

39. See AGENCIA ESPAÑOLA DE PROTECCIÓN DE DATOS. INTECO. *Estudio sobre la privacidad de los datos personales y la seguridad de la información en las redes sociales online*. Madrid, 2009, p. 92.

WikiLeaks, a tool

XAVIER BATALLA

Diplomatic correspondent of La Vanguardia

xbatalla@lavanguardia.es

Abstract

Julian Assange, founder of WikiLeaks claims to have invented “scientific journalism”; that is, the possibility for readers to have direct access to raw materials. But have journalism and diplomacy changed with WikiLeaks? WikiLeaks symbolizes the next generation of citizen movements that reject the raison d’état and its leaks have brought up-to-date the historical conflict between the obligation of the press to inform and the need for governments to protect what they don’t want you to know. But is WikiLeaks the fifth power or has its impact been overestimated? What has changed is the technology, the tool. WikiLeaks is a new transgression that, for journalism and diplomacy, has transformed a practice that was, until recently, a craft into something industrial. WikiLeaks is the evolution of leaks in the internet revolution.

Keywords

WikiLeaks, diplomacy, journalism, internet, sources of information.

Resum

Julian Assange, fundador de Wikileaks, reivindica haver inventat el “periodisme científic”, és a dir, la possibilitat que els lectors tinguin accés directe a la matèria primera. Però han canviat el periodisme i la diplomàcia amb les filtracions de Wikileaks? Wikileaks simbolitza la darrera generació dels moviments ciutadans que rebutgen la raison d’État, i les seves filtracions han actualitzat la pugna històrica entre l’obligació de la premsa a informar i la necessitat dels governs de protegir el que no volen que se sàpiga. Però Wikileaks és el cinquè poder o se n’ha sobreestimat l’impacte? El que ha canviat és la tecnologia, l’eina. Wikileaks és una nova transgressió que, per al periodisme i la diplomàcia, ha convertit en industrial una pràctica fins fa ben poc artesanal. Wikileaks és l’evolució de les filtracions en la revolució d’internet.

Paraules clau

Wikileaks, diplomàcia, periodisme, internet, fonts d’informació.

James Reston, one of the greats of the golden age of US press journalism, won one of his two Pulitzer prizes for an exclusive that leaked details on the Allied position regarding the United Nations founding charter. Reston published the draft in 1945 thanks to the complicity of a Chinese interpreter with whom he had worked at a news agency. His former colleague, who knew what was being discussed down to the last detail, passed him the draft due to the upset caused by its content to the Chinese delegation.

Reston was a press journalist and the last *insider*, the US way of describing someone with direct access to the sources of power. Walter Lippmann, Reston’s friend, was fundamental in developing US journalism. His prestige and influence marked the end of the hegemony of ideological journalism in the United States and the beginning of the predominance of informative and interpretative journalism. This journalism reached its peak with Reston. These were the years when *The New York Times* (the newspaper of his whole life) became one of the key instruments for information and diplomacy.

If Reston had been alive in June 2006 (he died on 6 December 1995), he would surely have been one of the journalists chosen by *The New York Times* to analyse the contents

of the 251,287 State Department documents obtained weeks before by WikiLeaks (a secretive website of anti-secret vigilantes) through Bradley Manning, a 26-year-old disillusioned US officer. In June 2006, Alan Rusbridger, editor of the British newspaper *The Guardian*, called Bill Keller, at that time Director of *The New York Times*, to tell him cryptically that WikiLeaks had leaked some confidential documents. As a result of this conversation, five of the press (*The Guardian*, *The New York Times*, *El País*, *Le Monde* and *Der Spiegel*) had access to these documents, which had come from 274 US embassies and were dated between 28 December 1966 and 28 February 2010. After a long and intense analysis, the five publications started to publish the first 220 cables on 28 November 2010.

A few days after having published the first leaks, Franco Frattini, Minister of Foreign Affairs for Silvio Berlusconi, accused Julian Assange, the founder of WikiLeaks, of “destroying the world”. This was an exaggeration but, more optimistically, a very different phase had started to the phase in which Reston had been one of the leading players. But are these two phases so very different? What is the difference between leaking the draft UN charter and WikiLeaks’ leaks? Has WikiLeaks changed journalism and diplomacy forever?

A long time before WikiLeaks was born in 2006 and started its operations in 2007, the internet had already altered journalism by creating an open global market with easier access to sources and audiences and with less respect for the concepts of privacy and secrecy. In October 1969, two computers located 600 kilometres from each other were connected and became the embryo of the network we now know as the internet. After three decades the internet covers almost the entire planet and, according to the Irish agency Nua, a third of the world's population now surfs the internet. This digital revolution has changed a lot of things, not just journalism and diplomacy.

Nicholas Carr, the author of *The Shallows. What the internet is doing to our brains* (W.W. Norton & Co. 2011), has warned us that the internet is eroding our capacity to control our thoughts and to think independently. When Carr realised that his ability to concentrate had shrunk considerably, he started to ask himself whether it might be due to the number of hours spent in front of a computer. And the result has been *The Shallows*, in which he warns us of what the internet is doing, in his opinion, to our brains.

The internet has also altered the journalism of James Reston. Among other things it has made it interactive. The appearance of e-journalism has fragmented audiences. For example, the influence of the press on foreign policy, when Walter Lippmann's syndicated columns acted like CNN, started to decline in the United States in the 1970s. And this decline has sharpened since then with the development of the so-called blogosphere and social networks, which have proved to be powerful tools to motivate political campaigns, both domestic and international. However, has this competition improved the information on and analysis of foreign policy? This doesn't seem to have been the case at all. Thomas Jefferson once suggested that newspapers should be divided into four sections: "Truths, probabilities, possibilities and lies" (Lepore 2009, 32). This was a way of saying that newspapers have not always been on the side of truth. And this is true. But the internet seems to be a more suitable channel for the last of the sections predicted by Jefferson.

The internet has not only led to change. For the apocalyptic among us, the internet hails the disappearance of newspapers. Philip Mayer, author of *The Vanishing Newspaper* (2004), claims that the last physical newspaper to be recycled will be published in April 2040, eight years before the 600th anniversary of Gutenberg's movable press. Thomas Jefferson would not have believed it. Jefferson, the third President of the United States, wrote in a letter dated 1787: "[...] were it left to me to decide whether we should have a government without newspapers, or newspapers without a government, I should not hesitate a moment to prefer the latter".

The first modern newspapers were born with the support of politicians. These were the days, in the 19th century, when it was said that the press should educate. The conservatives had their newspaper and the liberals, theirs. But indoctrination ended when a society columnist invented the popular press. And as a great evil can give rise to a great good, the success

of the popular or sensationalist press forced the partisan press to change. So started an era in which the press had to inform, which is no mean thing. Then the rules of play changed. Newspaper revenue came from advertising by firms that wanted to sell their products. And the price of a newspaper became a small fraction of the cost of the information. But this model has entered into crisis and, for the apocalyptic, is the announcement of a world without newspapers, although we have never read as much as we do now. So where's the problem? The fact is that the place where most journalistic stories are read is the internet, although the most surprising thing is that the majority of these stories still come from physical newspapers. Alex S. Jones, Director of the Shorenstein Center of Harvard University, has quantified this: "My own estimate is that 85 percent of professionally reported accountability news comes from newspapers" (Jones 2009, 53).

Assange, the founder of WikiLeaks, now claims to have invented what he calls "scientific journalism"; i.e. journalism that enables readers, when they access the informative raw material, to judge what is correct or incorrect in the work of journalists. But history shows that physical newspapers have published confidential documents since they first started, although it's also true that these leaks have multiplied since the internet appeared, thanks to technological innovations. In any case, the most significant fact from a journalistic point of view is that the publication of the State Department documents by five publications which, for months, had studied and analysed their content, highlighted the need for explanatory journalism, among other things, so that readers wouldn't get their wires crossed.

Explanatory journalism was required in the case of WikiLeaks because the State Department cables were of a highly varied nature. First, some were a version of an event. Second, some were simply speculative. Third, others were not specific enough. And fourth, some were also totally wrong.

But what has been and is the impact of the leaks from WikiLeaks on journalism and diplomacy? Jean-Christophe Rufin, a writer and diplomat, believes that WikiLeaks symbolises the latest generation of citizen movements that, such as Doctors Without Borders/Médecins Sans Frontières, an organisation of which he is one of the founders, reject the *raison d'État*. If the British politician, Burke, at the end of the 18th century, was the first to use the euphemism of the fourth power to mean the influence of the press, Rufin believes that "citizen movements such as WikiLeaks now represent, in the 21st century, the fifth power" (Rufin 2010, 18).

For Rufin, WikiLeaks' impact on journalism is a question of size. "The idea of WikiLeaks actually follows the logic of marketing", Rufin states. In other words, an activity that, until very recently, was practically artisan, such as the handing over, in person, of the UN's founding charter to Reston, has become mass produced. The leaking of secret documents is as old as journalism but, historically, this has been carried out on a small scale, although some media, such as the case in France of *Le Canard Enchaîné*, may have made it their speciality. With

WikiLeaks, a new tool capable of leaking 251,287 State Department documents, the size has changed. The transgression, therefore, has taken on a different nature. And illegality, provocation and even secrecy might have become the method. And this new citizen action would be impossible without the growing influence of the virtual networks.

But while the tool and the methods are new, the motivation is still the same as in Reston's time, both in terms of journalism and diplomacy. Journalism should be able to explain the content of what is being leaked, and the purpose of the leak should be related to citizens' desire to know what the government is doing in their name.

However, the world is not necessarily more transparent after WikiLeaks. Bill Keller, at that time Director of *The New York Times*, has written that "Nor is it clear to me that WikiLeaks represents some kind of cosmic triumph of transparency... But I suspect that we have not reached a state of information anarchy. At least not yet" (Keller 2011, 1, 6, 7). So has WikiLeaks changed how journalism is carried out? Keller has answered that question: "Frankly I think the impact of WikiLeaks ... has probably been overblown". It's quite another matter whether WikiLeaks and the requirement to separate the wheat from the chaff in what is leaked have served to underline the need of the press to become explanatory. And, at the same time, these leaks have also served to update the historic battle between the press's duty to inform and governments' responsibility to protect what they don't want to be known. The result is that public opinion in many countries has had the chance to access what their governments are doing.

Perhaps it's overblown to suggest that the leaks from WikiLeaks will ensure diplomacy is never the same again. But if Assange's aim was to change the world of diplomacy, he might have achieved something. The idea that the management of all foreign policy needs a strong dose of secrecy to limit public debate continues to have a lot of backers. The situation today is not what it was at the time of the Vienna Congress, when Klemens Wenzel Lothar von Metternich was able to design the map of absolutist Europe as he wished without meddling from public opinion, which was inexistent at that time. But secrecy is still going strong.

The history of diplomacy is the evolution of relations between states. Is it an art, as suggested by some of its beneficiaries? A system of persuasion, as told by those who earn their lives by persuading? Or is it simply a sometimes explosive mixture of force, threats and promises, as maintained by its victims, who are also numerous? The US comedian Will Rogers once defined diplomacy as "the art of saying 'nice doggie' until you can find a rock". Rogers could have been a diplomat.

However, not all diplomats could be applauded for being good comedians. One of the first to prove this was the British ambassador Sir Henry Wotton who, in the 17th century, did not make the King laugh when he said "An ambassador is an honest man sent to lie abroad for the good of his country". This diplomat also said that "The further you go from the Church of Rome,

the nearer you are to God". And Abraham de Wicquefort, author of one of the first diplomacy manuals, beat WikiLeaks by a few centuries and wrote "the diplomat is an honest spy".

Cardinal Richelieu, dedicated to *raison d'État* and Prime Minister of France from 1624 to 1642, is a case that warrants separate consideration. He was behind the diplomacy that benefited from the support of the Ottoman Sultan to fight the Catholic house of Hapsburg. And when news came of his death, it is said that Pope Urban VIII, who was not very diplomatic, blurted out "If there is a God, the Cardinal de Richelieu will have much to answer for. If not... well, he had a successful life" (Kissinger 1994, 58).

Diplomacy is still the best way to overcome discrepancies, prevent conflicts and find a solution to them. That's why some of the revelations made by WikiLeaks have merely confirmed that the wheel is turning. But others have been less innocent, as they have confirmed the suspicion that US diplomats have been carrying out soft espionage for years. And the problem is that their big secret has been unveiled. According to the leaks, Vladimir Putin is in charge of a mafia state "infected by large scale corruption". The Arab regimes in the Persian Gulf, the elites of which "dodge Islamic law and are fond of carnal pastimes", prefer "a conventional war against Iran now, rather than a nuclear one". Corruption "achieves the highest reaches of power in Mohamed VI's Morocco". The Spanish government (of Zapatero) "supported Western Sahara for a favourable solution to Morocco". In Tunisia, the President's family "steals everything of value". Chavez and drug smuggling "finance Ortega's Nicaragua". In Algeria, "corruption has even reached the President's brothers". And the United States mistrusts "Mexico's ability to win the drug war, given the corruption". Perhaps WikiLeaks won't change diplomacy from top to bottom but its leaks, as well as Facebook, did help to promote the Arab revolts of 2011.

However, is this completely new? It doesn't seem so. Lisa Anderson, President of the American University in Cairo, explained it as follows: "In Tunisia, protesters escalated calls for the restoration of the country's suspended Constitution. Meanwhile, Egyptians rose in revolt as strikes across the country... toppled the government. In Libya, provincial leaders worked frenetically to strengthen their newly independent republic. This was in 1919 [...] The uprisings of 1919 also suggest that the calculated spread of popular movements seen across the Arab world last winter (2011) is not a new phenomenon" (Anderson 2011, 2-7). Ninety years ago, the words that sparked off the Arab upheavals were those of the famous Fourteen Points speech by the US President Woodrow Wilson, who defended the self-government of peoples, including Arabs, who had just freed themselves from Ottoman rule. And Wilson's words were transmitted by telegraph, the new tool of the time.

One of the consequences of the leaks from WikiLeaks has been the humiliation of the US diplomatic service, incapable of keeping its secrets. But this had already happened several times before, even with other methods. In 1971, Daniel Ellsberg, an analyst with the RAND Corporation (a think tank re-

lated to the Pentagon), photocopied 7,000 pages of a report that proved the official lies about the Vietnam war and leaked them to *The New York Times*; the consequence was that the US pulled out of Vietnam in 1973. In 1972, Mark Felt, number two at the FBI and universally known by the pseudonym *Deep Throat*, leaked information to *The Washington Post* that directly implicated President Richard Nixon in the Watergate scandal; the consequence was Nixon's resignation. And, in 2004, Sergeant Joseph Darby denounced on the internet the torture and mistreatment in Abu Ghraib carried out by US forces in the Iraq war; the consequence was a chain of resignations and disgrace for the US intervention.

The leaks from WikiLeaks have harmed the credibility of the US security systems, which has led to Republican criticism of Barack Obama's administration. And it will possibly hinder future US diplomatic contacts with business people, politicians and journalists. But power will look for new ways to keep its secrets. And not for the first time. What has changed is the technology, which has multiplied the number of leaks and the possibility to distribute them to larger audiences. Three decades ago, stealing a classified document might have required the use of a miniature camera; now the spy or traitor of thirty years ago would be amazed by the possibilities afforded by new technologies, as demonstrated by Bradley Manning in downloading secret documents onto a CD which he took to his workplace with the excuse that he wanted to listen to some Lady Gaga songs.

Journalism's reaction to the leaks from WikiLeaks has also had been contradictory. Mark Zuckerberg, founder of the social network Facebook, was chosen as *Time* magazine's person of the year in 2010. This was an interesting decision that, without doubt, was also motivated by certain interests, since Zuckerberg ousted Assange, in spite of the fact that the founder of WikiLeaks was the one who had received most votes from internet users. And regarding diplomacy, its paths will always be unsuspected. In autumn 1961, as explained in his magnificent memoirs (Reston 1991), Reston was called to the Whitehouse by John F. Kennedy. The President was direct: Washington was prepared to give in to the Berlin crisis but felt it was risky to use the diplomatic channels to send an ultimatum to Moscow. Kennedy's idea was for Reston to launch the message. And Reston wrote that Washington might respond with military force if the Soviets blocked the accesses to Berlin. The Soviet diplomats bought the first edition of *The New York Times* and understood the column. And, after half a century, WikiLeaks is the evolution of leaks in the internet revolution.

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The concept of net neutrality and the tension between public regulation and the private self-regulation of networks¹

JOAN BARATA

Vice dean and professor of communication law at the Blanquerna Communication Faculty, Universitat Ramon Llull

JoanBM3@blanquerna.url.edu

Abstract

Today, the concept of net neutrality has become one of the key aspects in any debate regarding the regulation of the internet and the content, services and applications it carries. Summarising considerably, this is a concept related to the guarantee of a certain level of openness in the functioning of the network on the internet and alludes to the way in which ISPs can (or can't) affect access or reciprocal communication via the internet between end users and suppliers of content, services and applications.

Keywords

Net neutrality, electronic communications, regulation, public interest, self-regulation..

Resum

El concepte de neutralitat de la xarxa s'ha convertit avui dia en un dels eixos de qualsevol debat sobre la regulació de la xarxa i els continguts, serveis i aplicacions que hi circulen. Per dir-ho d'una manera molt sintètica, es tracta d'un concepte vinculat a la garantia d'un cert nivell d'obertura en el funcionament de la xarxa a internet, i al·ludeix a la manera en què els ISP poden (o no) condicionar l'accés o la comunicació recíproca mitjançant internet entre usuaris finals i subministradors de continguts, serveis i aplicacions.

Paraules clau

Neutralitat de la xarxa, comunicacions electròniques, regulació, interès públic, autoregulació.

Introduction

Today the concept of *net neutrality* (NN) has become commonplace and one of the key aspects in any debate regarding the regulation of the internet and the content, services and applications it carries. In principle, it would seem that every time we refer to NN we are referring to a concept that has an agreed meaning among lawyers, economists and specialists in technology. However, the fact is that this is not necessarily the case. It's quite likely that, in any discussion dedicated to this area, the initial notion for each of the parties involved might be different, obviously affecting the analysis carried out. Consequently, the first question that needs to be answered in the NN debate is related to the meaning of the concept per se.

If we make an effort to take a step back from this and find a minimal, shared notion of NN that might be accepted by anyone involved in this debate, we could state, to begin with, that it is a concept related to the guarantee of a certain level of *openness* in the functioning of the network on the internet. In reality, and this is a conceptually important initial consideration, we would have to accept that the idea of neutrality would not be applied to networks seen as physical infrastructures but to the internet as a specific platform that allows access to services, content and applications. The concept of NN therefore affects the terms and conditions under which certain internet actors or intermediaries have the capacity to reach their ultimate destination, located at one of the ends of the aforemen-

tioned network. And this isn't just any term or condition but those which internet service providers (ISPs) have, at the same time, the technological capacity to influence. In short, the idea of NN refers to the way in which ISPs can (or can't) condition access to or reciprocal communication via the internet between end users and suppliers of content, services and applications.

It should be noted that it's difficult to find a network or distribution platform that is strictly neutral. It's evident that structural, technological and even economic elements influence any system of such characteristics, comprising a kind of *original sin* and therefore granting, at the outset, a greater capacity for intervention to some operators rather than others. We should note, for example, the debates regarding the rights of access, interconnection and local loop unbundling of fixed voice services, or the extreme case of railway networks. If this is the case, a strictly neutral view of how the internet works as a communication platform in the aforementioned terms would suppose that end users would be able to access absolutely any supplier at exactly identical speeds and levels of quality. However, a strictly neutral management of the network by ISPs would mean that any packet would have to be treated in the same way, irrespective of whether it was services with a high added value or merely a virus or spam. If we assume this starting point, any action by ISPs aimed at blocking viruses, spam or preventing network congestion would be seen as non-neutral and therefore contrary to the idea of net neutrality, as well as, for example, offering internet services based on providing a faster connection speed or greater

capacity for end users in exchange for paying a higher rate.

This strictly egalitarian view of NN, which was formulated at the beginning by Tim Wu, one of the first authors to deal with this issue, has been relatively detached from the current debate, although there are still unresolved controversial questions regarding this issue, such as the levels of connection quality offered to end users.²

In any case, and in an attempt to delimit some minimal defining elements, we can see how the idea of NN essentially influences the terms under which ISPs intervene in the exchanges and communication carried out between, on the one hand, end users and, on the other, operators using the internet platform to supply all kinds of services and content. If this is the case, a favourable attitude towards NN would involve understanding the need to guarantee that ISP intervention in this traffic does not unduly hinder these exchanges (either by prioritising certain suppliers over others or by blocking or hindering access to certain products or services). However, when is something undue obstruction, in other words, an abuse of the *natural* position of dominance that any ISP has over everything that circulates via the internet? Looking at the current debate, we can see that this abuse could occur, hypothetically, via the possible agreements between ISPs and suppliers of content or applications to prioritise their access by end users, or simply to decisions directly adopted by ISPs to prioritise those services that are particularly of interest in economic terms (such as the cases of vertical concentration). This is certainly the hard core of the NN debate

On the other hand, it's obvious that there would be other, non-neutral forms of managing the packets that circulate via the internet that would also present problems from the point of view of protecting a certain level of NN: for example, the situation whereby ISPs inspect and restrict certain content based clearly on *editorial* criteria, i.e. preferring content of a certain ideological bent over other content, blocking content that comes from certain countries, etc.

2. Net neutrality as part of the tension between self-regulation and regulation *per se*

Managing the internet, i.e. the conditions and speed of access to content, services and applications, as well as the technical features of the internet connection that allow for optimum use, are largely in the hands of ISPs. This is a fundamental starting point to correctly understand the rest of the elements in the debate regarding the regulatory approach to net neutrality. In other words, the public powers do not have the technical capacity to directly control or oversee what is happening on the internet, at least in terms of the issues mentioned.

From an economic and technological point of view, the internet could certainly self-regulate on the basis of agreements and, in short, the checks and balance that comprise the complex value chain on the internet as a distribution platform. Great economic value circulates on the internet via a large number of

intermediaries. And the truth is that that any of these intermediaries could obviously impose certain conditions or even offer special treatment in exchange for something or to benefit from specific economic interests. If we accept this system of the self-composition of interests, we also have to assume the definite risk of end users not being able to access the services, applications and content chosen under strictly equal conditions and on the basis of true freedom of decision, but that this would be in the hands of the different actors involved in the value chain and particularly, although not exclusively, ISPs. And I say not exclusively given that it is evident that other actors, such as large portals or search engines, obviously have the capacity to influence the terms under which a certain end user can access certain content or an application.

Certainly, it can be argued that any of the operators present on the network would presumably have the economic incentive to offer end users the widest range of content and services without any limitation and that, in the last instance, there will always be the guarantee of free competition, which must allow them to change provider. Notwithstanding this, and without prejudice to the difficulties this last element presents and which we cannot go into here, there is no evidence, as of today, that this incentive really exists or at least occurs in all cases. The presence of direct rivals, the need to avoid congestion in which certain interests are at a disadvantage, or even the *weak* position of certain new actors are factors that might play (and actually do play) a key role in the current cases of non-neutral management of networks. For example, look at the case of Comcast in the United States, where this cable company technically blocked audiovisual content via BitTorrent, taking into account that the company had its own subscriber content on offer, or the difficulties encountered today by any user of a mobile phone broadband network to use it to make free calls over a Skype type platform.

Consequently, if we accept as a feasible hypothesis (which seems reasonable) the fact that ISPs will not always, or necessarily, have the incentive to neutrally manage their networks, regulatory intervention *per se* can be seen as fundamental in order to guarantee this neutrality. Moreover, in terms of economic incentives, it is logical that those who have to invest heavily in networks in order to provide internet access services should then aspire to a certain amount of power regarding their management, in order to maximise the economic return from the technical capacities provided, as well as, in the ultimate instance, to obtain their *piece of the pie* regarding the economic value circulating via these networks.

At this point, several distinctions need to be made. Firstly, we must repeat that it's not just ISPs that can alter the management of the internet in accordance with a series of neutrality parameters. As has already been mentioned, large portals and search engines are, to some extent, a kind of essential hub in directing and redirecting internet traffic, on the basis of criteria and algorithms that are not understandable or transparent for end users. If this is the case, it is obvious that the intermediary role that corresponds to them is not at all irrelevant in terms

of *traffic regulation* and, therefore, constitutes an essential link in guaranteeing internet users full freedom of movement and choice. Nevertheless, the debate regarding the guarantee of certain principles in the area of these operators is still quite considerably eclipsed by that of NN *per se*.³ Secondly, we should also note that the subject in question is limited to a very specific area, namely that of access by end users to a wide range of content and applications without there being an unacceptable degree of discrimination or simply a blocking of certain parts. The question we must ask is whether the power of ISPs in access terms is the only area that is problematic in terms of the non-neutral management of the internet. By way of example, what if ISPs could *sell* relevant information regarding the functioning of the internet and user behaviour to third parties in order to optimise the use of a certain application to the detriment of others? Therefore, an analysis and a complete, detailed study of possible non-neutral and unacceptable behaviour by ISPs surely require a much broader understanding of how the internet works and its role and capacities. We must therefore be aware of the limitations of the current focus.

Thirdly, we should repeat that the NN debate is not only an economic issue located exclusively in the area of defending free market competition. As has been pointed out before, NN can also have an evident aspect of content control and, consequently, affect the fundamental rights of freedom of expression and of information. In other words, certain types of non-neutral conduct by ISPs (and not only these operators) can consist of *opening packets* transported in order to select the content that ultimately reaches the end consumer on the basis of politically motivated criteria, subject to certain limits of a sexual nature, types of language employed or even geographical and linguistic origin. It is evident that these cases are clearly related to the private censorship of content. If we accepted this practice, all expressive flows circulating on the internet would stop being subject, if applicable, to legal rules *per se*, placing the function of regulating free speech and the free circulation of information in the hands of network managers. A scenario, as you might suppose, that is absolutely undesirable in democratic terms.

Finally, we should also note that the regulatory response to the lack of net neutrality (in the terms under which the notion is described here), i.e. *public, external* regulation compared with the undesired effects of simple self-regulation operated between the different links in the value chain, has yet to be characterised in detail in any agreed manner. In other words, the fact that an agreement can be reached regarding the need to guarantee a certain level of openness and neutrality in how the internet supplies and accesses content, services and applications would not end the debate by itself, as we would still need to clearly identify the most suitable regulatory instruments to carry this out.

Although we can't go into such an important and extensive matter here either, we should note that, firstly, one of the initial questions to be asked is to what extent the current regulations regarding the right to competition (especially in terms of restrictions on abusing a dominant market position), as well as

in the area of protecting the fundamental rights of freedom of expression and of information, are enough to validate banning certain conducts on the internet, in accordance with what has been presented thus far. Another fundamental question to be discerned, essentially by lawyers, is related to the very legal nature of net neutrality: is it a right of any citizen that can be exercised against third parties with the same systems in order to guarantee it as with any other right? Or is it the beginning of network regulation, which must be respected by the legislator and the administration when exercising their powers? Would it be a simple guiding criterion or not a strictly binding objective which would be, in the last instance, related to the political criteria in force at any time and in relation to different types of networks and services, attending, however to parameters such as incentives and the specific level of investment at the time?

3. Regulatory measures related to protecting net neutrality

The first question that is worth dealing with in more detail is related to something that has been noted at the start of this article: the relation of the NN debate to the quality of service provided, especially in terms of the possible discrimination of prices paid by end users according to the breadth of the bandwidth used and the access speed. It seems clear that, as this area is not directly related to suppliers of content and applications but to agreements that ISPs might reach with end consumers, the issue would not be included within the hard core of the current NN debate. However, this does not mean that it is beside the point, as the levels of quality ultimately condition the possibilities to enjoy the services provided by the different suppliers operating on the internet. So a reduction in quality in the access service provided can end up giving rise to a situation in which end users cannot enjoy certain applications or services. In these cases, a justification based on "whoever pays more gets a better service" would seem insufficient because, in reality, this would effectively limit the access conditions and ultimately the openness of the internet as a distribution platform. This explains, for example, why among the extremely timid actions by the European Union in this area there is, nevertheless, a specific provision in section 3 of article 22 of the Directive regarding the universal service of electronic communications (Directive 2009/136/EC, of 25 November), which grants national regulators the possibility to impose certain levels of quality in those cases where there is a risk of significant degradation, with the aforementioned consequences.

Secondly, a fundamental regulatory element in the area of NN is related to transparency. This element has a clear dual aspect: on the one hand, it seems necessary for end users to at least be aware of the criteria for managing traffic applied by ISPs regarding their own network. On the other hand, and surely most importantly, transparency should also be linked to the supply of information by ISPs to the rest of the operators, so that they

can develop content, applications and services that are better adapted to the characteristics and traffic of networks at any given time, thereby optimising their use and avoiding, insofar as it's possible, situations of collapse or strangulation. Considered in isolation, transparency might seem a very simple measure and many would even take it as read. Nevertheless, and as has been mentioned, what really happens within the traffic a certain network is not revealed to the public or regulators, so that the imposition, correctly detailed and set up for its effective application and compliance, of the duty to make public and accessible the capacities and methods used to manage network traffic, becomes a truly important measure in the area of NN (in any of its senses) and an essential starting point for the discussion of more intense or specific regulatory measures.

This is actually the first of the regulatory directives included in the Open Internet Order recently approved by the Federal Communications Commission (FCC) and officially published on 21 September, before coming into force on 20 November 2011. It should be noted that the debate regarding the need to approve a regulation that guarantees a certain level of NN on the US bandwidth has formed part of political discussions over the last few years and, in fact, the FCC had taken some steps in this area⁴ and had even adopted a notorious decision in the aforementioned "ComCast case".⁵ However, the regulation finally drawn up by the FCC is based on establishing a general obligation of transparency, not necessarily precise in terms of its specific scope but "welcomed" as positive by all those involved in the debate.

Thirdly, it seems obvious that the unjustified blocking of services, content and applications, which therefore impedes access to a part of what is offered on the internet, would be unacceptable in accordance with parameters (we repeat) that are not only related to defending free market competition but the very idea of protecting free speech on the internet. The issue of the scope of the term "unjustified", which we have just used, is different, opening the door to questions related to internet traffic management. Along these same lines, the aforementioned decision by the FCC prohibits both the unjustified blocking of content and applications as well as unreasonable discrimination between them.

In this area, the idea of reasonable network management acquires particular relevance in order to avoid congestion or the circulation of content that is clearly "harmful", in any case understanding this idea of harmfulness in exclusively technical terms. In this respect it is evident that the detection, elimination or non-prioritising of spam, viruses and other forms of e-junk would come within the capacities attributable to an ISP and could even be required in terms of the obligation to maintain the different routes by which "legitimate" network content travel. It's not so clear, however, the way in which, if necessary, the corresponding regulation should be drafted or set up in this area: how free would the ISPs be to decide? Would strict proportionality be required in the sense of applying the less discriminatory technological measure irrespective of its cost?

How is this "principle" related to a hypothetical duty to invest in constructing and maintaining efficient networks? The answers to these questions could largely affect the effectiveness of the measures that need to be adopted and even network owners' incentives to invest. In the case of the FCC's decision, the excessively generic terms, ambiguous and not very restrictive, by means of which ISPs are empowered to take decisions in this area, have given rise to a large number of criticisms from some of the different operators.

Another question of interest that should be considered is to what extent a hypothetical regulation of NN must also be technologically neutral. In other words, do we have to apply and require the same neutrality criteria from all networks, either fixed or mobile, irrespective of the levels of competition and efficiency achieved and irrespective of the existing incentives for investment? More specifically, would it currently be sustainable to impose strict obligations in the area of neutrality (such as happens in the Basque Country,⁶ while in the United States the FCC refuses this categorically) on mobile networks that are currently developing and being implemented? On the other hand, should we treat as equal networks of domestic and commercial use that permit access to the internet at critical, intensive points in terms of general interest, such as public spaces, airports, certain infrastructures, etc.? This is a particularly delicate and relevant question, related directly to the future development of new generate networks in our immediate environments and one which, to a large extent, has yet to be resolved.

Finally, one last question of interest relates to the possibility that acceptable capacities for ISP network management should include some kind of capacity to discern and block certain content that might be considered "harmful", now not only in technical terms but also in legal terms. We are thinking, for example, of delicate content or content that contravenes the legislation in terms of intellectual copyright. This is certainly an important and valid debate, insofar as the public powers, given the difficulty of "catching" the majority of those responsible for content that circulates the internet, might be tempted to resort to "the last mile" and impose on ISPs powers of inspection and control which are currently difficult for the public powers to exercise directly. However, I believe that this measure, which consists of making ISPs guarantors and controllers of the legality of content, means giving them a disproportionate burden both from the point of view of content and also of the logical consequences: in other words, if we accept that ISPs are not neutral regarding the lawfulness of the content they carry, in that case they should be made accountable if they provide access to and distribute any unlawful content. We must repeat that experience shows this is a very tempting scenario for the regulatory powers, especially regarding the protection of intellectual copyright. However, it would clearly be disproportional and would violate the terms under which, to date, the effective exercise of artistic and expressive freedoms have been related to the exercise of legal responsibilities.⁷

Notes

1. Article produced as part of the research project *Communications, Regulation and the Public Interest*, by the Blanquerna Communication Faculty (URL).
2. See Wu, T. "Net Neutrality, Broadband Discrimination". *Journal of Telecommunications and High Technology Law*. Vol. 2, p. 141, 2003.
3. Regarding these issues, see PASQUALE, F. "Internet Nondiscrimination Principles: Commercial Ethics for Carriers and Search Engines". [Online]. *The University of Chicago Legal Forum*, 2008. <www.stanford.edu/dept/law/ipsc/pdf/pasquale-frank.pdf> .
4. A minimally detailed explanation of this evolution can be found in the article by LAGUNA DE PAZ, J. C. "Internet en un cruce de caminos: ¿neutralidad o gestión razonable de las infraestructuras? *Civitas Revista Española de Derecho Administrativo*. No.141, 2009, pp. 43 and sub. It should also be noted that, previously, the Canadian communication regulatory authority had also adopted a very interesting decision related to this area. See specifically the *Review of the Internet Traffic Management Practices of Internet Service Providers*, adopted by the *Canada Radio-Television and Telecommunications Commission*, on 21 October 2009: <www.crtc.gc.ca/eng/archive/2009/2009-657.htm> .
5. See the FCC's decision on this issue, adopted on 1 August 2008 (FCC 08-183).
6. On 22 June 2011, the Parliament of the Netherlands passed a law by virtue of which, among other aspects, providers of broadband mobile communication services must not block, discriminate or impose the payment of surcharge in using the internet service to carry out Skype type voice and/or image calls. It is certainly very advanced legislation compared with the regulations existing in the rest of the European Union, and is in stark contrast to the cautious, generic tone with which, on 19 April 2011, the European Commission had drawn up its communication addressed to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions on "The open internet and net neutrality in Europe" (COM (2011) 222 final). However, the decision by the Netherlands to opt for strict regulation in the area of defending NN has been criticised by the Vice President of the Commission and the head of the European Digital Agenda, Neelie Kroes, insofar as it not in line with the "wait and see" position currently endorsed by the Union's institutions.
7. Regarding the need to think of new regulatory systems in this area (including the so-called co-regulation), the following work is essential: MARSDEN, Ch. *Net Neutrality: Towards a Co-Regulatory Solution*. New York: Bloomsbury Publishing, 2010. Available at: <papers.ssrn.com/sol3/papers.cfm?abstract_id=1533428> .

Intellectual property in the digital world: an extinct monopoly?

RAQUEL XALABARDER

Lecturer in law at the Universitat Oberta de Catalunya

rxalabarder@uoc.edu

Abstract

Digital technologies are proving to be one of the biggest challenges facing the legal regime of “traditional” intellectual property. Over the last few centuries, intellectual property has become a useful mechanism to encourage creation, to guarantee remuneration for authors and artists and, in general, to regulate a specific market, namely the creation and exploitation of works and performances. However, digital technology questions many of this regime’s traditional concepts, from the very concepts of author and work to the scope of exclusive rights in online environments, the regime of licences, the role of collecting societies, etc. This article examines some of the issues currently under debate: violation via P2P systems, the limit to private copying and how to compensate this and the Creative Commons licensing system.

Keywords

Intellectual property, author’s rights, internet, private copying, public licences, collecting societies.

Resum

Les tecnologies digitals estan demostrant ser un dels reptes més importants als quals ha de fer front el règim jurídic de la propietat intel·lectual “tradicional”. Durant els darrers segles, la propietat intel·lectual ha esdevingut un mecanisme útil per fomentar la creació, per garantir una remuneració als autors i als artistes i, en general, per regular un mercat concret –el de la creació i l’exploració d’obres i prestacions. La tecnologia digital, però, qüestiona molts dels conceptes tradicionals d’aquest règim, des dels mateixos conceptes d’autor i d’obra, a l’abast dels drets exclusius en entorns en línia, el règim de llicències, el rol de les entitats de gestió, etc. En aquest article examinarem alguns dels temes de debat actualment: la infracció mitjançant sistemes P2P, el límit de còpia privada i la manera de compensar-la, i el règim de les llicències Creative Commons.

Paraules clau

Propietat intel·lectual, drets d’autor, internet, còpia privada, llicències públiques, entitats de gestió.

1. Introduction

Over the last few years, as a result of the emergence of digital technologies (and most particularly the internet), the debate regarding intellectual property has gone from being limited to professional and academic circles to becoming a complete part of society. Almost every day the media publish some news item related to the issues of intellectual property: exchanging files through P2P (*peer-to-peer*) systems, the duty levied to make up for private copying, licences for public communication in hairdressers, hospitals and other places open to the public, the role of collecting societies, public licences (such as Creative Commons licences), etc. To a greater or lesser extent, everyone has a particular opinion about the appropriateness or unfairness of these issues, albeit often resulting from declarations that are not very well informed. This article attempts to deal with some of the most pressing issues related to intellectual property in digital environments and provide an intelligible and objective legal view. Specifically, these three issues: the exploitation and infringement of online works, especially via P2P systems; private digital copying and how to remunerate it; and public licences, such as Creative Commons licences.

First, however, we need to explain briefly the legal system that protects intellectual property.

2. The regime of intellectual property

Intellectual creation is natural in humans, who have always created irrespective of whether there is a legal regime to protect creation. The great authors of the Renaissance, for example, did not have any “ownership rights” (in the sense of exercising exclusive and excluding control) over their works (normally contained within a single unit), which directly went on to be the *property* of whoever had financed them (the monarchy, church or patrons). To find a legal regime as such, we have to go back to the 16th century, when the arrival of printing severed the link between the “work” and the “copy”, resulting in a new market that had to be regulated (the so-called printing “privileges” granted to printers to *exclusively exploit* a specific work) or at least to the 18th century, with the first English intellectual property act (*Statute of Anne*, 1709), which granted authors of printed works a period of 14 years for the exclusive right to authorise publishers to exploit the work.¹

The regime protecting intellectual property can be justified in two quite different but perhaps complementary ways: on the one hand, because it's fair to recognise and enable the remuneration of individual effort (creative, artistic, economic, etc.) and, on the other hand, as a mechanism to stimulate and regulate the market of creation, which ultimately benefits everyone (the more that is created, the richer our society).

Something having a name, however, does not always mean that it exists. Although we use the term "property", intellectual property is not "property" in the same sense as with the physical (tangible) goods, movables or real estate around us and over which we are used to exercising absolute and excluding control (that is what property is). Intellectual property is, they say, a "special" kind of property. And very special it is too! Firstly, because the object protected is not a physical object but an *intellectual creation*, irrespective of whether this creation is included within a tangible medium (for example, a CD, a book, a picture, a sculpture or a roll of film) or not (for example, a jazz jam session or mime show). Secondly because, unlike "normal" property, creation can be used (listened to, seen, read, etc.) by many people simultaneously and without exclusion. And, finally, because in the vast majority of cases, intellectual property affects goods of great cultural and social value, as well as economic.²

In any case, it's undeniable that, without an intellectual property regime, intellectual creations would "naturally" tend to be in the public domain from the moment they are exteriorised. We are therefore faced with an "artificial" regime, established by law and with highly specific objectives.

In order to understand the regime of intellectual property (hereafter IP),³ we must employ five fundamental concepts: work, author, rights, limits and licences.

- a. With regard to the **definition of work**, any *original intellectual creation* is a work. The work's artistic merit and economic value are irrelevant, as are the use it may have, the technology employed and the complexity involved in creating it. Any *intellectual creation* that is *original* is protected by law. Although it's often very difficult to define what is original and what isn't, the objective scope of application (the front door to the IP house) is quite wide. In addition to works, the law also protects other *performances* related to the creation and exploitation of works but which are not "original intellectual creations" per se, such as interpretations and acts carried out by artists (singers, musicians, actors, directors, etc.), record and audiovisual recording producers, takers of "mere photographs" and broadcasting bodies.
- b. However, not everyone who makes a contribution to a work is an author: **only the person who creates it is the author**. According to Spanish law, the author is the natural person(s) who create(s) the work. In specific cases, such as collective work and computer programs, the law allows rights to be granted directly to the person (which might be a company) that coordinates the creation of the work. Hereafter, therefore, when we refer to authors, we must also assume this includes the holders of rights to other *perfor-*

mances protected by law: artists, producers, broadcasting bodies and photographers.

- c. The law confers two kinds of rights to the author regarding the work: so-called "moral" rights and "property" rights. The former are aimed at protecting the author's rights of a personal (not economic) nature regarding his or her work, such as **attribution** (the right to be recognised and accredited as the author), **integrity** (preventing the work from being mutilated or deformed in such a way that harms the author's reputation or interests) and **dissemination** (to decide whether to publish the work and how, or to keep it unpublished: logically, dissemination can only be exercised once). Property rights, however, are aimed at authors *being able* (success is not guaranteed) to profit financially from exploiting their work via **exclusive rights of exploitation: reproduction** (fixing the work or making copies of it), **distribution** (by selling or donating, renting or loaning tangible copies), **public communication** (putting the work in the public domain without distributing copies, including exploiting works via the internet)⁴ and **transformation** (modifying the work to make another new one). The law also guarantees some **rights of "simple remuneration"**,⁵ such as the right to a share from the public resale of a plastic work and fair remuneration for private copying.
- d. And, as happens with all property, **limits** are required. There are two kinds: those related to time and also material limits. Intellectual property is not eternal and is only protected for a limited period of time: in Europe, this protection period is standardised at **70 years as from the death of the author**.⁶ After this period, the work enters into the "**public domain**" and from then on can be exploited commercially by anyone and free of charge, provided moral rights are respected. With the public domain, the work "returns" to the community which, in any case, is where it originally came from (no author can create in a cultural vacuum). Material limits, on the other hand, apply while the work is still protected to ensure that, in some specific cases (such as citation, parody, teaching and research, information, etc.) it will be possible to use/exploit the work without requiring the author's permission (and without the author being able to oppose this). It is through these limits that the legislator achieves the "point of balance" between protecting the author's interests (moral and property rights) and protecting other interests (both public and of third parties) that deserve to be imposed, especially regarding fundamental rights such as free speech, freedom to information, access to culture, etc.
- e. Authors are free to exercise these rights of exploitation and remuneration as they wish (or to decide not to do so), either directly or by commissioning third parties or organisations (such as collecting societies) via the regime of licences. Licences can be granted exclusively, for a specific time and territory and stating the specific rights and types of exploitation being authorised. Realising that the author is normally the weakest party in a contractual negotiation, the law takes

it upon itself to protect the author and, for example, states that, in any case of doubt regarding the scope of a contract, the interpretation must be the one most favourable for the author (*in dubio pro auctoris*) and types of exploitation must never be understood as authorised that were not known at the time of taking out the licence (the author can always authorise new kinds of exploitation).

3. Intellectual property online

IP regulations are the result of technological developments over the last few centuries. The concept of a *work*, the definition of rights of exploitation and their limits have evolved as technology has provided new ways of creating and exploiting works. Photography, radio, cinema and television are good examples of this. And digital technology is no exception: computer programs, videogames, digital databases, multimedia works, etc. have become part of the object protected by IP laws. Rights of exploitation have also been moulded to digital technology to ensure the system survives in digital environments; and, as a new incorporation, today's laws allow rightholders to establish protective measures using digital technology to control the access and use (copies) made of their works.⁷

With the arrival of digital technology, the author's scope of exclusivity has been strengthened (at least formally) to the extent of definitively erasing the boundary between exploitation (normally commercial and public) and mere use (enjoyment of works). The exclusive right of **reproduction** covers any use and even any temporary, incidental copies that may be made in a computer's RAM are subject to it (although an obligatory limit throughout the whole of the EU condones them).⁸

On the other hand, the **concept of public**, inherent to the very concept of *exploitation*, has gradually been broadened. The right of public communication, initially defined in terms of display (exhibition, museums) and live performance (concerts, theatre, dance, recitals, etc.) became increasingly important over the last century with broadcasting technologies that made public communication possible to a distant public. And although the communication carried out within a domestic or private sphere has traditionally been excluded from the scope of this right [article 20 of the Revised Text of the Spanish Intellectual Property Act (TRLPI in Spanish)], recent jurisprudence by the European Court of Justice⁹ (ECJ) has ended up broadening the concept of *public* in detriment to the concept of *domestic or private sphere*, which is now difficult to apply to private rooms in hotels, hospitals, hairdressers, etc.

Finally, the internet has ended up breaking down the barriers of time and space: the fact that a protected work is placed at the disposal of the public via the internet, so that any user can access it from anywhere or anytime they want, is an act of public communication. It doesn't matter if no-one ever visits that content and it doesn't matter if it's free or charged for; the important thing is that it has been placed at their disposal and

this can only be done legally by the person who is the author of the work or has a licence for it, unless, of course, one of the legally established limits applies. What is under debate now is whether, due to the mere fact of **establishing a link** to an external website, a new act of reproduction and public communication is being carried out of the protected external work and, therefore, if the author's permission is required (as always, unless one of the legally established limits applies). The courts have made several attempts to contribute some kind of solution to this disparity between reality and the law. Some choose to deem that, when an author or rightholder places his or her work at the disposal of the public on the internet, then this person is implicitly allowing (hence the idea of "implicit licence") users to access the work and make links to it.¹⁰ Others prefer to conclude that, when a link is made, no act of reproducing the work is being carried out (at most, the title is being reproduced to activate the link but not the whole work), nor an act of public communication (because it simply leads the user towards the original page).¹¹ However, nothing has been decided as yet (as always, the law is slow). We all realise that the internet would not be what it is if we couldn't make links. The debate is therefore not purely theoretical but rather significant to today's information society and that of the future.

Downloading files using P2P systems also presents interesting legal issues, both related to direct liability (on the part of the user) and indirect liability (on the part of the person providing the service that makes this possible). Via a P2P system, the user makes available to all other users of that system digital files (normally of someone else's work) saved on his or her computer (or on another disk space). Even in the case of this copy having been made legally within the limits of private copying (see point 2 of article 31 of the TRLPI),¹² the fact that it is made available to other users clearly entails an act of public communication for which the corresponding authorisation should be obtained (for example, with a Creative Commons licence) in order to avoid violation. Having reached this point, there are two issues to be analysed *de lege ferenda*: do we want the unauthorised use of other people's work via P2P systems to be an offence? And, if this is the case, what kind: civil or criminal?

On the one hand, the law could directly permit this new kind of exploitation of alien works by obliging authors/rightholders to request the licence in exchange for payment. This is the "legal or obligatory licence" system, with the law authorising the act of exploitation, accepted in the past to enable the public communication of commercial phonograms on the radio and to transmit broadcast works via cable (see point 1 of article 36 of the TRLPI). This option was the one proposed by the Electronic Frontier Foundation¹³ and the one claimed by Napster when sued by the record industry in 2000. Neither the courts nor legislators took any notice and it was preferred to reserve the licensing of this new kind of exploitation to the sphere of exclusivity (and therefore discretion) of the rightholders, possibly hoping that these owners would make new kinds available to consumers. 10 years have passed and, apart from iTunes,

possibly the only model that has been successful, albeit accompanied by significant technological restrictions for consumers, the problem of the new models of online exploitation is still unresolved. New P2P systems (more evolved than Napster and Grokster) are presenting new legal challenges, especially those related to the possible subsidiary (or indirect) liability of the creator/supplier of P2P technology for offences committed by the users of this technology.¹⁴

The second challenge is the nature of the offence: namely deciding whether the offence committed via P2P systems is civil or criminal, which determines the jurisdiction, measures and actions available, such as the kind of penalty/compensation to be imposed/received.

Pursuant to article 270 of Spain's Penal Code, unauthorised exploitation of a protected work via any medium constitutes an offence against intellectual property provided it is carried out "for a profit and in detriment to a third party". Traditionally, profit has been understood very broadly, to the point of also including any "advantage or benefit" (including savings). In accordance with this doctrine, although someone using P2P systems is not making money they are saving money and this act could therefore be considered "for a profit" for the purposes of article 270 of the Penal Code. In 2006, however, in a clear attempt to legalise a socially accepted and widespread behaviour, the Crown Prosecution Service (Circular 1/2006) established that, for the purposes of article 270 of the Penal Code, the profit motive would be strictly interpreted as "commercial profit" (to obtain some kind of economic benefit). Consequently, the common use of P2P systems is not considered to be a behaviour listed in article 270 of the Penal Code because there the typical element of the profit motive does not apply; various decisions have already followed this criterion and have refused to treat such behaviour as a criminal offence.¹⁵

Having ruled out, therefore, the criminal channel, which allowed rightholders, by means of precautionary measures, to obtain personal information on presumed offenders in order to be able to sue them¹⁶, they now find it very difficult to pursue these offences only by civil means and have managed to get the government to establish a *sui generis* system (different to ordinary jurisdiction) to combat this. Act 2/2011, of 4 March, on the sustainable economy, amended article 158 of the TRLPI and created a second section within the already existing intellectual property Commission (which had previously carried out the functions of mediation and arbitration, essentially), which must take charge of "safeguarding the rights of intellectual property against their violation by those responsible for information society services [...]". Specifically, this section may adopt measures to interrupt the provision of the offending service or to remove the offending content "as long as the supplier, directly or indirectly, acts with a profit motive or has caused [...] property damage". Before adopting these measures, the supplier has a period of time to remove or suspend this kind of content voluntarily (and therefore the proceedings are ended) or to make allegations and present evidence; in this

case, the Commission will consider them and rule "according to the principles of objectivity and proportionality". Before carrying out these measures, however, prior judicial authorisation is required. In principle, this process is expected to act not against the "offending" users of P2P systems but rather against those providing these services (in other words, against the owner of a website with links to P2P files, etc); however, its effectiveness is highly debatable as there continues to be a basic problem: when is it considered that the rights of intellectual property have been violated? Is it enough to make a link to violating content? When will there be a "profit motive", etc? We will have to wait and see how useful this new channel turns out to be.

4. The limits to intellectual property: private copying and how to compensate it

As we were saying, intellectual property is not limitless: in specific cases, the author's monopoly disappears in the case of other interests in general or of third parties considered to be as or more important than the interests of the author him or herself. As the definitions of exclusive rights are extended, limits become increasingly important. Unfortunately, to date this has not been a priority of the legislator. Quite the opposite, as the legislative changes of the last 15 years have weakened legal limitations. On the one hand, they have gradually lost the imperative nature that characterised them and the exercise of some remains subject to the will of the author or rightholder, either directly (in the case, for example, of the limit to press clipping introduced by point 1 of article 32 of the TRLPI) or indirectly (by incorporating technological measures that prevent the act from being carried out *de facto* which would be permitted by the legal limit, as in citation, parody, etc.). On the other hand, within the framework of the European Union the space for possible limitations has been reduced to an exhaustive enumeration made about 10 years ago now (instead of allowing legislation to adapt to the needs of technology and the real situation, as had always been the case) and its application has been subjected to a restrictive criterion of interpretation called the "three stage test" (see article 40 *bis* or point 5 of article 5 of Directive 2001/29/EC): legal limitations cannot be interpreted in such a way that their application unreasonably prejudices the legitimate interests of the author or prejudice the normal exploitation of the work. The definition of when this is unreasonably prejudiced and when it prejudices the normal exploitation of the work are key concepts that are complex to evaluate if not case by case.

Having made these general considerations in order to point out the evident imbalance (at least in formal terms) between rights of exploitation and legal limits, we shall deal with one of these limits in particular that has generated quite a lot of debate recently: private copying and how to compensate it.

Point 2 of article 31 of the TRLPI allows private copying (including digital), i.e. the author cannot prevent it.¹⁷ The limitation to private copying arises, once again, from technology: the

appearance of photocopiers, analogue sound and video recorders and, more recently, in digital format. The justification for this limitation, which is normally explained as not to prohibit *de lege* what cannot be prevented *de facto*, entered into crisis with the arrival of digital technology, to the point that many (particularly the music and film industry) predicted its end.¹⁸ Finally, the legislator did not accept this petition and opted to allow, *a priori*, private copying also on digital formats.

However, once permitted, it cannot be denied that, at an aggregate level, private copying **competes with the normal exploitation of the work. Consequently, the legislator** grants the author the right to obtain “fair” economic compensation (see article 25 of the TRLPI). In Spain, this compensation is generated by applying **a tax on the price of devices and media** that are “ideal” to use for making private copies (photocopiers, sound and image recorders, tapes, etc.). The price is set according to their potential (copying capacity, duration, etc.) and whether they are analogue (directly regulated by article 25 of the TRLPI)¹⁹ or digital (regulated by Order PRE/1743/2008, of 18 June, recently repealed).²⁰

When a consumer acquires these devices or media, a part of the price paid corresponds to this concept.²¹

The limitation to private copying is applicable to all kinds of works (except for computer programs and digital databases, see point 2 of article 31 of the TRLPI), but the compensation only benefits holders of rights to works disseminated in the form of a book (or similar publications), phonograms, videos or other sound, visual or audiovisual media. Consequently, the only beneficiaries of this compensation are authors and artists (singers, performers and actors), producers and the publishers of works exploited in any of the ways indicated.

This is **“fair and unique”** compensation in the sense that a single tax must serve to compensate all rightholders and is established as unrenounceable and non-transferable (it’s another matter if the authors don’t want to be paid this compensation but collecting societies have to collect it). And the law states that this must be managed collectively: only validly established collecting societies are entitled to (and, in fact, must) collect and distribute this compensation and it must be done jointly. And, finally, this is a compensation.

Consequently, the relationship between “private copying” and “compensation” is not “direct” (nothing is paid/received for making a private copy) but rather is structured around the “idealness” of the media and devices and according to the concept of *fairness*.

Regarding these points, the Decision of the ECJ of 21 October 2010 (C-467/08), the Padawan case (DOCE 18.12.2010, C346/5), has been very clear, arising as it did from a previous issue from the Provincial Court of Barcelona (Section 15a) in the case of SGAE v. Padawan (the *Societat General d’Autors i Editors* was suing a commercial establishment for the amounts generated as compensation for private copying for selling digital media): compensation is only “fair” when the devices and media on which the tax is levied will be *predictably* used to make private copies and, therefore, will predictably prejudice authors;

this is the case of devices and media acquired by natural persons and, as explained by the court, it is not necessary to prove that private copies have been made or than the author has been prejudiced; predictability is enough. On the other hand, the tax should not be levied on those devices and media acquired by legal persons (companies) or by professionals, as in these cases, predictably, they will not be used to make private copies and, therefore, compensation would not be “fair”.

Consequently, it is important to point out that the Decision of the ECJ expressly confirms the Spanish compensatory tax system based on “ideal” devices and media (now with the interpretation of “predictable use”) but since Order PRE/1743/2008 did not make this distinction (between natural and legal persons or professionals), it was contrary to law and had to be amended in this respect.²²

Some months later, on 22 March 2011, the Spanish High Court annulled this order due to reasons of form:²³ since the regulation of private copying compensation is general and normative in nature (it is not merely an executive act), it should have been processed following the formal procedure *ad solennitatem* established by the law, which includes a prior report by the State Council and the corresponding justificatory reports. Once declared fully null and void (and therefore as if it had never existed), two questions must be asked: it is possible to reclaim the amounts paid during the almost two years this tax was in force? And what is the currently applicable regime to compensate digital private copying until a new regulation is adopted? The first question is difficult to answer: in theory, yes (private individuals can reclaim the amounts paid unduly via ordinary legal proceedings);²⁴ in practice, however, it seems almost impossible (apart from the fact that it might not be beneficial).²⁵ And the thing is, in answer to the second question, annulling the Order does not mean that there is no tax applicable to digital devices and media but that the regulatory framework existing before the Order simply becomes valid again. Specifically, although it wasn’t until Act 23/2006 was passed (implementing Directive DRRIS) that article 25 of the TRLPI expressly established that the tax should also be applied to digital devices and media. The SGAE, which had already claimed judicially the payment to manufacturers of digital media and in September 2003, with these court decisions upholding its petition, came to an agreement by which ASIMELEC (which grouped together the main manufacturers of digital media, floppies, CDs and DVDs) accepted to pay the compensatory tax for private copying on digital media. These amounts were validated by Act 23/2006, of 7 July (single temporary provision), and were applied up to 20 June 2008 (date when the Order came into force). Now they are valid again.

5. Creative Commons licences

One of the other important issues in the area of intellectual property on the internet is Creative Commons licences. The

Creative Commons project started in the United States in 2002 in order to provide authors, artists and producers with a range of standardised licences that would allow them to authorise the public, in general, to exploit their works, performances and/or recordings. In the long term, the aim was to construct a fund (the *commons*) of works and performances that are freely available to the public and free of charge. But this commons must not be confused with the “public domain” which, as we have seen, derives only from law (once the protection period for the work has expired). A work licensed under Creative Commons is still protected, although it’s true that, depending on the licence chosen, it can be used “as if” it were in the public domain.

Neither should Creative Commons be confused with *copyleft*. Legally, *copyleft* is a contractual clause that states the new “derived” work must be subject to the same licence that has permitted its creation. In this way, an author that has benefited from a public licence “returns” his or her creation to the public under the same conditions. In spite of the play on words, *copyleft*²⁶ is not contrary to *copyright*: without a law to protect intellectual property there would not be any *copyleft* or public licences because authors and artists would have nothing to license. Creative Commons licences are applicable (with more or less luck) to all kinds of works but not all are *copyleft*.

Creative Commons licences are available in more than 46 countries in versions translated and adapted to the national laws of intellectual property.²⁷ Irrespective of the language and the national law regulating it, the interoperability of licences and their easy iconographic interpretation aids the circulation of works around the globe.

Public licences create rights and obligations,²⁸ both for the author, who is bound by the licence, and for the user, who automatically becomes the licensee and must accept and respect the licence conditions. Creative Commons is merely an intermediary and is therefore not liable for any abuse of this system.

As we were saying, the content of Creative Commons licences is pre-established and cannot be modified. The licence authorises all **rights of exploitation** granted by law to rightholders (reproduction, distribution, transformation and public communication) with the sole condition that reference is made to the name of the author or artist and, if this has been stated, the source where it has been published.²⁹

From this point on, **the author can choose** between authorising or excluding the following:

- commercial uses “that principally aim to either secure a mercantile benefit or a monetary exchange”;
- modification or transformation of the work, and, if permitted, the author can decide whether to subject it to copyleft or not.

In this way, the author can adjust the **degree of control** he or she can exercise over the work: which rights the author wishes to “reserve” and which he or she wishes to licence to the public.

A Creative Commons licence can only be granted to the holder

of the rights being licensed. Often, however, the public of a work in magazines or publications online remains subject to a licence previously chosen by the publisher: if the author accepts publication under this licence, it is understood for all effects as if the author had granted the licence. Consequently, to avoid imposing a licence, institutions and publishers should be ready to make exceptions when requested by the author.

Depending on the options chosen, there are **six different licences** identified by combining four basic icons that explain the conditions established by the author (*Commons Deed*) and which can be understood irrespective of the language used in the licence (*Legal Code*)³⁰ (see figure 1).

The more symbols, the more restricted the licence (or to put it another way, the fewer the symbols, the broader it is).³¹ The most restrictive option (*by-nc-nd*) does not permit commercial use or derivatives of the work. The broadest (*by* and *by-sa*) permits any act of exploitation.





When choosing a licence, the following must be taken into consideration:

- Creative Commons licences cover all types of exploitation³² and in any medium or format (although the licence is taken out over the internet, it covers all formats of exploitation: digital, paper, DVD or CD, etc.);
- Creative Commons are granted free of charge: the rightholder agrees not to demand payment for the uses licensed, although this does not impede payment (if someone wants to pay for acts of exploitation that everyone can do free of charge) or, although it does not seem coherent, payment of compensation for private copying;
- And they are perpetual (for the whole period of time the work is protected, as established by law). At any time, the author can stop distributing the work with the Creative Commons licence but, once granted, the Creative Commons licence cannot be revoked (except in cases of violation and only with regard to the violating party). Consequently, the exploitation of derivative works or the effects resulting from acts carried out while the work was licensed cannot be stopped.

The extensiveness of these licences is “mitigated”, however, by the fact that they are not exclusive. The author can license the same work and scope of exploitation with different conditions (payment can even be obtained) but exclusivity can never be granted, except (obviously) for the scope reserved when granting the Creative Commons licence. This loss of exclusivity is what had been used, until very recently, by collecting societies to refuse publicly licensed authors and works. Now, however, forced by the European Commission,³³ they are accepting management mandates without exclusivity (for works licensed with a public licence).

We must remember that Creative Commons licences do not affect the private copy compensation payment which, as we have already seen, the law grants for authors and publishers and which cannot be renounced. The author can decide not to claim the payments from the corresponding collection society

Figure 1. Author conditions for Creative Commons licences

	(by) must credit the author and the source
	(nc) no commercial use permitted
	(nd) no derivatives of the work permitted
	(sa) share alike or copyleft obligation (incompatible with the previous one)

Source: Author.

but the Creative Commons licence does not mean that the tax established by law is not levied. On the other hand, licences managed by collection societies on the mandate of authors and rightholders would be affected (when the Creative Commons licence authorises commercial use), such as the licence for public communication in establishments open to the public (discos, music bars, etc.).³⁴

Uses permitted directly by law aren't affected either (the so-called "limitations": whatever the licence established, anyone can use the work for a citation, a parody or a news item and for educational or research purposes, as established by law). Neither are the moral rights of authors or artists affected, which are unrenounceable and inalienable (article 14 of the TRLPI).³⁵

However, the simplicity of the system (it's easy to use and is not subject to any control or checks) and the appearance of legality it confers (it's understood that it was the author who granted the Creative Commons licence) make it particularly vulnerable: any abuse (due to lack of knowledge or malice) could lead to a chain of violations of good faith that would nonetheless still be violations. Whether it functions properly therefore depends on its correct understanding and use, both on the part of authors and publishers and also the public. If it is not explained properly, the massive success of the project could lead to the misunderstanding that anything that does not have a Creative Commons licence is not protected when, in fact, any original creation is protected irrespective of any formality, registration or obviously licence!

If they are properly understood and employed, these licences can help to distribute works, promote new authors and artists and also alternative exploitation, especially on the internet, to "traditional" channels. But not all Creative Commons licences are ideal for all authors or for all works. Each author, artist or producer must know his or her rights and decide which licence (traditional or public) is the best to exploit his or her intellectual contributions and interests.

6. Conclusions

Over the last few centuries, intellectual property has proved itself to be a useful mechanism to encourage creation, ensure payment for authors and artists and, in general, to regulate a specific market (that of the creation and exploitation of works and performances) that requires the predictability of a business model to attract capital investment (and we must not forget that some creations require heavy investment) and avoid unfair behaviour (unfair enrichment) among market agents. Whether the system itself also turns out to be useful for dealing with the needs and possibilities offered by the digital world will depend on how good our solutions are to the questions posed and a correct balance between all interested parties in the conflict, both private and public.

Notes

1. *An Act for the Encouragement of Learning by Vesting the Copies of Printed Books in the Authors or Purchasers of such Copies, during the Times therein mentioned.* It therefore provided some security to the growing publishing market and avoided unfair enrichment on the part of other publishers who wished to profit from the success of a work published by another person.
2. Creative industries account for 3% of all employment in Europe. See the European Commission Communication of 24 May 2011, COM (2011) 287 final. <http://ec.europa.eu/internal_market/copyright/docs/ipr_strategy/COM_2011_287_en.pdf>.
3. This is a simple, readily understandable explanation of the rudiments of the IP regime but the real situation is obviously more diverse and complex than can be explained within the confines of this article.
4. Nevertheless, we often use the word *distribute* (imported from North American legal nomenclature) to refer to acts of exploiting works via the internet. In Europe we should only use the term "public communication" to refer to online exploitation.
5. This expression is used because they do not include the power of exclusivity (to authorise or prohibit) that characterises rights of exploitation but only the power to obtain remuneration in exchange for exploiting the work.
6. See Directive 93/98/EEC, of 29 October, derogated and codified by Directive 2006/116/EC, of 12 December, on the term of protection. We should note that, in Spain, because of the temporary right resulting from the Intellectual Property Act of 1879, works by authors who died before 7 December 1987 are protected by a longer term: 80 years after their death. <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31993L0098:EN:NOT>> <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32006L0116:EN:NOT>>
7. See article 160 to 162 of the TRLPI (Revised Text of Spain's

- Intellectual Property Act, approved by Royal Legislative Decree 1/1996, of 12 April, and amended by Acts 5/1998, of 6 March, and 23/2006, of 7 July). Evading these measures is prohibited and directly constitutes a violation of the right of IP, even in those cases where the use in question might be covered by one of the legally established limits.
8. See point 1 of article 31 of the TRLPI and point 1 of article 5 of the DRRIS (Directive 2001/29/EC, of 22 May, on the harmonisation of certain aspects of copyright and related rights in the information society). <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32001L0029:EN:NOT>>
 9. See the Ruling given by the European Court of Justice on 7 December 2006 in the case *SGAE v. Rafael Hoteles*, C-306/05, which standardises the concept of *public* within the EU (something which the EU legislator did not dare do in the DRRIS) and concludes that private rooms in a hotel are not domestic or private spheres but public ones and, therefore, the fact of placing a television or radio at the user's disposal requires the corresponding licence from collecting societies because public communication can be carried out when the user turns on the devices.
 10. There has been a decision in favour of "implicit licence" in various countries, such as *SAIF v. Google*, Tribunal de Grande Instance de Paris, of 20 May 2008, confirmed by the Cour d'Appel de Paris, 26 January 2011, available at <http://www.juriscom.net/documents/caparis20110126.pdf>; *Vorschau-bilder*, the Federal Court of Germany (BGH), I ZR 69/08, of 29 April 2010 (there is no licence of rights, per se, but there is consent/permission); and *Pedragosa v. Google*, Audiència Provincial de Barcelona (Section 15a), of 17 September 2008 – currently under appeal before the Supreme Court. Naturally, if the author/licence holder establishes specific conditions of use (for example, refusing unauthorised links), these prevail over any implicit licence that may be deduced from the acts. Some websites expressly prohibit not only links to home pages but also deep linking (e.g. the Encyclopaedia Britannica website at www.britannica.com).
 11. The Provincial Court of Barcelona (Section 15a) has ruled along these lines in two recent cases: the Decision of 7 July 2011 [*indice-web.com*] and the Decision of 24 February 2011 [*Elrincondejesus.com*]. In both cases, it confirms that introducing a link to third party websites that allow downloads (indirectly, as with Megaupload or Rapidshare or directly, links to P2P files) of violating content does not constitute an act of exploitation (nor of reproduction or public communication), although in the case of direct download services [*Elrincondejesus.com*], the court concluded that the action constituted a "contribution" to the infraction.
 12. As a result of the amendment introduced by Act 23/2006 (point 2 of article 31 of the TRLPI), which subjected private copying to two conditions: that the work has been "accessed legally" and that "the copy is not used collectively or for profit", this limit is unlikely to be able to cover downloads carried out via P2P systems.
 13. VON LOHMANN, F. *A Better Way Forward: Voluntary Collective Licensing of Music File Sharing* [Online]. Electronic Frontier Foundation, April 2008. <http://www.eff.org/share/collective_lic_wp.php>
 14. Decision by the Provincial Court of Barcelona (Section 15a) of 24 February 2011 [*Elrincondejesus.com*].
 15. See the Decision given by the Provincial Court of Cantabria (Section 1a) of 18 February 2008 (although this case did not deal specifically with P2P exchange but the use of messages and chats, the court refused to allow that there had been a commercial profit motive in the sense of article 270 of the Penal Code).
 16. Article 12 of the LSSICE (Spanish Information Society Services Act) establishes that the suppliers of internet services are only obliged to give personal information regarding their users in criminal proceedings (see Act 34/2002, of 11 July, on information society services and electronic commerce, amended by Act 32/2003, of 3 November, on telecommunications and Act 57/2007, of 28 December, on measures to foster the development of the information society) and the ECJ (see the Decision of 29 January 2008, *Promusicae v. Telefónica*, C-275/06) endorsed the option chosen by the Spanish legislator: pursuant to article 15 of Directive 2000/31/EC on electronic commerce, member states can restrict the obligation of service providers to give personal information on users only in criminal proceedings.
 17. Point 2 of article 31 of the TRLPI: "Author authorisation is not required for the reproduction on any medium of works already disseminated when this is carried out by a physical person for his or her own private use based on works which have been accessed legally and the copy obtained is not the object of collective or lucrative use, [...]"
 18. Digital licences and technological measures would allow consumers to graduate the use of and access price for works and would therefore make it unnecessary to limit private copying in digital environments.
 19. The amounts for analogue devices and media range from 60 cents per music recorder to 6.61 euros for each video recorder and from 18 cents (per hour) for each music tape to 30 cents (per hour) for each video tape.
 20. The amounts for digital devices contained in the order were: 60 cents for CD recorders; 3.40 euros for DVD recorders; 9 euros for scanners; printers and photocopiers between 127 and 227 euros per unit (according to their copying capacity); multifunctional equipment between 7.95 and 10 euros; 30 cents per USB or similar; 12 euros for memory disks; 3.15 euros for MP3 and MP4 units; 1.10 euros for mobile phones and PDA devices. With regard to media: 17 cents (CD-R), 22 cents (CD-RW), 44 cents (DVD-R) and 60 cents (DVD-RW). Computer hard disks were expressly excluded from the tax (article 25(7)(b) of the TRLPI). According to article 25 of the TRLPI, compensation has to take into account whether technological measures exist to control access and copying. These amounts were to be revised every two years.

21. Although, formally, the debtors are the manufacturers and, if applicable, the importers, of these devices and media, the price "is passed on" *de facto* to the distributor and end consumer.
22. This Decision validated the different decisions and petitions made by professionals (as well as lawyers) to secure the return of the amount paid for the tax for acquiring CD-ROMs used to record the hearings of the case, obligatorily imposed by judicial legislation.
23. See the Decision of the Spanish High Court (Section 3a) of 22 March 2011, Westlaw.ES JT2011/202; and another five decisions with the same date and content: Westlaw.ES JUR2011/94692, 94693, 94694, 94695, 94696.
24. In fact, the High Court itself opted not to hear the claim by the plaintiff regarding the backdating of the nullified status with respect to collections made, justifying that this fair compensation is of a legal and private nature and therefore it did not have jurisdiction over this petition.
25. Before the 2008 Order, fewer media came under the tax but the amounts were higher in some cases.
26. *Copyleft* originates in the **GNU General Public License** (GPL) for free programs. At present, more than 50% of freeware is created and exploited under a GPL licence. <<http://www.fsf.org/licensing/licenses/gpl.html>>
27. The Creative Commons website provides access to the different jurisdictions and licences available for each one. <<http://creativecommons.org/>>
28. Although legal dogma questions whether public licences are really contracts; there is talk of donating or renouncing rights in favour of the public.
29. This option is particularly interesting for publishers and, in general, for derivative rightholders.
30. A small program (*Digital Code*) makes it possible (if the Creative Commons web is copied correctly) to see the icons and licence and also for internet search engines to index and locate the licensed work.
31. The statistics on the use of each licence can be seen at: <<http://monitor.creativecommons.org/>>. In the world, for 2010, 49% (41%) corresponds to the broadest licences (*by*) and (*by-sa*) and 47% (57%) exclude commercial use (*by-nc*) and (*by-nc-nd*); 20% (23%) exclude derivatives (*by-nd*) and (*by-nc-nd*) and 47% (41%) force *copyleft* (*by-sa*) and (*by-nc-sa*). The results are a little different for Spain (indicated in brackets).
32. In Spain, pursuant to article 43 of the TRLPI, only the types of exploitation existing when the licence is granted are covered.
33. See the European Commission Decision of 16 July 2008, case CISAC, COMP/C2/38.698
34. If the establishment does not use repertory works of the collecting society (i.e. SGAE), but rather works under a Creative Commons licence, the collecting society cannot claim the corresponding licence; ultimately, it's a question of proof.
35. Recognition is already contained in the licences and the rest remain in effect, although they may not be mentioned. So the

author could oppose the mutilation of his or her work, even when authorisation has been given to transform it.

Abbreviations

DRRIS: Directive 2001/29/EC, of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society. <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32001L0029:EN:NOT>>

LSSICE: Act 34/2002, of 11 July, on information society services and electronic commerce.

ECJ: European Court of Justice.

TRLPI: Revised text of the intellectual property Act approved by Royal Legislative Decree 1/1996, of 12 April, amended by Acts 5/1998, of 6 March and 23/2006, of 7 July.

Governing the internet, towards common regulation

CARLES ALONSO

Regulation and procedures technician at the Agència Catalana de Certificació - CATCert (Catalan Certification Agency)

calonso@catcert.cat

Abstract

The internet and new technologies in general are increasingly important tools for the political, social and economic life of our societies. Internet management is the result of the work of various organisations that, in many cases, are dominated by private interests far removed from the target community and public interest. This article aims to provide an overview of the regulatory scenario for the internet, as well as identify the key aspects in this debate. In this respect, and lacking a global solution, some legislative responses can be formulated and, at a practical level, technical regulation envisaged based on the parameters underlining the management of affairs of public interest, i.e. objectivity, transparency and participation, whose introduction falls to institutions within a common regulatory framework.

Keywords

New technologies, governance, regulation, internet.

Resum

Internet i, en general, les noves tecnologies, són, cada cop més, unes eines d'una gran importància per a la vida política, social i econòmica de les nostres societats. La gestió de la xarxa és fruit del treball de diverses organitzacions que, en molts casos, són dominades per interessos privats allunyats de la comunitat de destí i de l'interès general. Aquest article pretén donar una visió general de l'escenari regulador d'internet, com també identificar els elements claus del debat. En aquest sentit, i a manca d'una solució global, se'n poden articular algunes respostes normatives i, en un terreny pràctic, concebre la regulació tècnica des dels paràmetres que guien la gestió dels afers d'interès general, és a dir, l'objectivitat, la transparència i la participació, la introducció dels quals correspon a les institucions en el marc d'una regulació compartida.

Paraules clau

Noves tecnologies, governança, regulació, internet.

1. Introduction

The growing importance of new technologies in today's society has positioned the internet as one of the key points in the debate on globalisation. The internet constitutes a conglomerate of technological solutions that interact thanks to telecommunication protocols and technical standards and, in this respect, issuing technical standards becomes crucially relevant to the functioning of the internet. In this article we shall attempt to provide a brief characterisation of technical standards as an area of interest in legal terms due to their capacity to produce economic regulation and to manage economic resources. Today these functions (which have been the traditional object of public policies and state instances) are the result of the work of organisations with a private statute and with the important participation of large operators from the different areas related to new technologies.

To understand better the challenges facing democratic societies we will show, by means of three examples (ISOC/IETF, ICANN and W3C), the functioning and characteristics of these

organisations. We will then examine the state of the question and the most relevant issues in the debate on the future of the internet, as well as the key points from a legal point of view, to understand better the possibilities and capacities of institutions in providing a response in terms of the general interest and in defence of the interests of citizens.

With regard to this question, governments and administrations face a significant range of challenges. Firstly, they must ensure the internet functions well, respecting the right of everyone to take part and avoid anti-competitive behaviour in its management, as well as attempting to introduce suitable objectives of a shared nature with technical standards being able to influence the capacities of use. In the domestic sphere, they must ensure a fairer distribution of resources and, especially, of the opportunities offered by the information society. The sum of these elements means that the internet is a decision-making area that goes beyond the sovereignty of a single state and a single actor, so that a complex concept emerges that will redefine the actors in their area of responsibility and in common principles and goals: governance.

2. The internet's technical standards and the centres that issue them

2.1. Technical standards: administer resources and produce economic regulation

The internet today is extraordinarily relevant for the social, political and economic life of our societies. The capacity of computer code to decide how resources are managed, or our capacities when using new technologies, constitute key elements to understanding the new dimension taken on by the debate concerning technical standards.

Data filtering or the structure of IP addresses are a couple of examples that clearly illustrate the power conferred by defining the operational parameters of new technologies. In the case of data filtering, for example, this is a technique that prioritises internet traffic, resulting from an informal consensus among internet operators to avoid congestion.¹ But this produces a regulatory problem in the classic sense as it discriminates between content producers and, ultimately, is related to the need for large operators to invest in infrastructure. With regard to IP addresses, the decision to migrate from version 4 to 6 has led to an increase in numeration resources and implicates all operators involved in managing the internet.

These two examples demonstrate that technical standards influence the management of resources offered by technology and have repercussions in terms of economic regulation. Berners-Lee himself, creator of the World Wide Web concept, has made this quite clear with a simple explanation of how the internet works, involving transmission networks, programs, machinery and content. According to Berners-Lee, modularity in engineering can be explained as a separation of horizontal markets in economic terms.² The effect of technical standards and, in general, of the configuration of different technological products and services might increase or decrease the capacity of the rest of the actors to sell their products. The European Commission's fine imposed on Microsoft for abusing its dominant position by not releasing the source code of its products to its rivals is also the result of this kind of problem.

Such a capacity to generate resources or influence the capacity for action may be expected for any technological development but there are some organisations that substantially determine how the internet works. The debate regarding the internet is much broader than the existence of some specific organisations (which will be examined below). However, we need to know which organisations play a leading role in the functioning of the internet and might be characterised as "internet legislators". From their creation and organisation we can extract some elements that serve to delimit the most important points in the internet debate.

2.2. Issuing technical standards from a historical/organisational perspective

At present, there are three organisations that play the most important role in determining technical standards and the man-

agement of internet resources: 1) the Internet Engineering Task Force (IETF, under the formal umbrella of the American Internet Society), which produces specific regulations regarding protocols and technical standards; 2) the Internet Corporation for Assigned Names and Numbers (ICANN, continuation of the Internet Assigned Numbers Authority), which manages the core internet servers that, distributed geographically, allocate groups of IP addresses and register domain names associated with IP addresses; 3) the World Wide Web Consortium (W3C, under the direction of Tim Berners-Lee, creator of the internet), which produces the standards for the internet, formalising document formats and computer language elements. Below we provide a brief review of the history and main organisational principles.

The IETF is not an organisation as such but can be defined as a collection of spaces for discussion and the production of technical standards. When IT professionals need to produce a technical standard or revise an old one, they get together in a working group and carry out this task. The Internet Society (ISOC) was set up to make these discussion spaces a little more formal and, to a certain extent, to protect the IETF.³ Classic IETF products are requests for comments, the basic internet technical standards, so called because the first documents about the functioning of ARPANET started with a request for comments on a proposal.⁴ There are different types and statuses defined by the RFC (informational, experimental, historic) and there is a whole procedure (similar to a legislative procedure) to apply for and revise a RFC.⁵ The work is organised into different working groups and is carried out remotely, with some specific physical meetings. To carry out tasks in the IETF, the professional must form part of a member organisation of the ISOC. The ISOC has a Board of Trustees which appoints its chairperson, treasurer and secretary.

ICANN is the successor to the Internet Assigned Numbers Authority (IANA), which directed the work of managing domain names, formalising the work carried out by Jon Postel. Postel was one of the interns who took part in organising the first servers for the university network that connected to ARPANET (DARPA, the US military project which gave rise to the very first internet network, ARPANET). Being a tidy person, Postel started to compile RFCs and made lists of the servers and IP address names that interacted, gradually constructing an internet register.⁶ The IANA formalised this function and the management of root servers remained in its hands, as well as the authorisation of top level domains, but these were highly complex tasks and went beyond the capacity of an organisation with a scientific orientation. Before Postel died, ICANN (formally a non-profit association domiciled in California and therefore under its civil law) took over this function thanks to an agreement (Memorandum of Understanding) with the US Department of Commerce, which would provide it with financial and logistic support and would maintain some of its powers. Today, ICANN works on two levels: the work of authorising domain names and establishing technical standards is centralised, while the management of root servers and the distribution of domain names

is decentralised into Regional Internet Registers⁷ that are made up and therefore directed by telecom operators, which organise themselves and take decisions autonomously regarding the planning and distribution of IP address blocks to local registries at a state level made up of local operators. ICANN also accredits its domain name registrars, companies that compete as sellers of domain names. Finally, it grants top-level domain names (e.g. the domain .es, managed by *Red.es*) to countries' authorities with a statute recognised by the international community, by means of an agreement that delimits the commitments assumed by the administration in managing the domains. ICANN does not have members to channel the participation of interested parties and anyone affected by its activity (or inactivity) can ask for a task to be reviewed. It has a Board of Directors that appoints the three executive members (president, administrator and secretary). Recently, ICANN revised its Articles of Incorporation with an orientation to ensure transparency and participation.⁸ This review is also the result of observations made by the European Commission that, in a Communication from 2000, raised doubts⁹ regarding the organisational elements of domain management.

The World Wide Web Consortium (W3C) is an initiative by the Massachusetts Institute of Technology (MIT), which proposed the creation of this organisation to Tim Berners-Lee to protect the internet in regulatory terms, with the collaboration of the European Commission, CERN and DARPA. Under the direction of Tim Berners-Lee and the administration of a CEO, the W3C is the sum of three main partners that formed a "consortium" and that, in principle, would formally hold authority for the W3C: MIT, Keio University and Inria (which was succeeded by the European Research Consortium for Informatics and Mathematics, ERCIM). Common W3C members must be legal persons that pay a membership fee on a sliding scale, depending on the organisation's character or level of income. Members can make singular contributions and help the W3C by offering personnel to carry out work at the W3C. The work of the W3C is organised into working groups that can be permanent or temporary, as well as by coordination groups. The W3C director is responsible for its organisation and strategic direction and, although there is an executive body, also takes on the main decision-making functions. There is no transparent decision-making framework and the participation of members and individuals is limited to defining standards without them being able to intervene, at least formally, in the general debates. In this way, the track record of the IANA is reproduced, which depended on one person whose knowledge and expertise are recognised by the internet community.

These three organisations give an idea of the complexity and organisational diversity involved in the technical work of defining standards and how the internet should work. These organisations were set up at a critical time in the early days of the internet and their characteristic traits do not provide guarantees of control (on the part of the public) regarding the quality of the decisions, leaving everything to the ethical standards of some

professionals, in the best case scenario, and to the arbitrary decisions of commercial interests of companies with the greatest organisational capacity to be present in the debates. Under these terms, neither transparency in decisions nor in the process can be guaranteed (sometimes technical standards are in response to decisions taken informally in consensus among companies) and accountability for how the internet works is hazy.

The activity of these organisations has an eminently technical tone and is enclosed within the world of professionals, which means that, in many cases, the direction of organisations depends on the view of a single person or on the interests of large operators from a specific sector. Apart from the classic hazards of a regulatory type (capture, conflict of interest, anti-competitive practices), the functioning of these organisations produces filters and access difficulties due to the high technical level of the debates and other aspects of organisational complexity that give rise to exclusions.¹⁰

Internet governance organisations manage the basic resources in order for the internet to function and produce standards that can condition access to new technologies, and these issues should be within reach of all interested parties and encourage public scrutiny of the decisions taken in this respect. The importance of the activities carried out would justify the need to introduce control mechanisms on the part of the public.¹¹

The reform of ICANN's Articles of Incorporation, as a result of the observations introduced by European institutions, is a good example of how the working methodology can be redirected of organisations that issue technical standards. However, the internet debate is more extensive than the activity of just one organisation and this means that a global approach is required regarding the future of the internet. The World Summit on the Information Society has raised this question, among others, in the debate. This is a complex debate and with significant implications of an economic, political and social nature that required an international discussion space open to all parties involved in the good functioning of the internet: institutions, internet organisations, the private sector and civil society.

3. The debate regarding internet governance as a permanent process

3.1. The inclusive debate regarding the future of the internet at the World Summit on the Information Society (WSIS)

The context of the internet today is very different to the original university network; there are many stakeholders affected by technical standards and, as we have seen, the activity carried out by these organisations plays an important role in the conditions under which economic activity is carried out and in the distribution and exploitation of the resources that, up to now, had been decision-making areas exclusive to the public powers. As can be imagined, this question is of the utmost interest for institutions, which have attempted to defend their position in the development of technology in the process we will now review.

Given the importance of the internet to our societies, institutions have started to reflect on this. From the time when the Millennium Declaration was approved, the UN has tried to open up a debate regarding the internet as a possibility to achieve higher levels of well-being everywhere and it started to work along these lines.¹² On the initiative of the ITU, and under the auspices of the UN General Secretary,¹³ a process of reflection and debate was initiated with the WSIS regarding the internet that is of the utmost interest and is the beginning of a process, surely a long one, of the transition from a self-regulation model (which we might call inappropriate) to the search for a model of shared accountability. The aim of the WSIS was clear: the idea was to start up an inclusive debate regarding the future of the internet and to guarantee human rights.¹⁴ The event had two settings, the first in Geneva, by way of a preparatory phase, and the second in Tunis, not without controversy given the authoritarian nature of the country's political regime and its refusal to allow journalists in.

The aim of the first phase, ending with the Geneva Declaration, was to identify the actors and participants in the debate, as well as to garner the starting points, i.e. the information and common consensus that would help to organise the debate between participants. This first phase primarily involved institutions, significantly the UN and the International Telecommunications Union (ITU). These two organisations have knowledge of the areas that were to be at the heart of the debate: human rights and the functioning of technology. The UN, therefore, with more experience in holding global summits, would provide knowledge on how to tackle global problems and the complexity of handling debates that incorporate several different points of view, actors and sensitivities; for its part, the ITU, with knowledge of the technological complexity and the private sector, would provide expertise regarding the starting point, the state of the art in the area of technological development and technical regulation (remember that technological firms can play an active role in the ITU itself as "associates" or collaborators, i.e. they can take part in a study committee but the decision-making capacity is reserved for the plenipotentiaries, representatives of the member states).

So the UN's contribution would particularly make the debate inclusive and, via institutional direction (like steering), would arrange the active participation of international organisations, states, private sector and civil society from the preparatory phase.¹⁵ The ITU would assume the technical office and administrative tasks to prepare the two summit phases: Geneva (preparatory) and Tunis (final).

In the Geneva phase, the relevant elements, initial conditions, challenges and different actors in each area were identified. The Geneva Declaration therefore starts by recognising (point 7) that the advances produced are the result of scientific communication.¹⁶ Immediately afterwards, it evaluates the opportunities offered by new technologies in many areas that could be reduced to equal opportunity. One of the important points, which we wish to highlight, and as an introduction to the dis-

tribution of tasks among the different actors, is the reminder of the importance of public administrations, as they provide citizens with the means to access the infrastructure, information and promotion of capacities in different areas. The public powers are also assigned the task of supervising the competitive conditions to encourage innovation. Regarding the technical regulation and management of the internet, the declaration advocates management that should be "multilateral, transparent and democratic, with the full involvement of governments, the private sector, civil society and international organizations. It should ensure an equitable distribution of resources, facilitate access for all and ensure a stable and secure functioning of the Internet, taking into account multilingualism" (point 48). Finally, it recognises that "policy authority for internet-related public policy issues is the sovereign right of States. They have rights and responsibilities for international internet-related public policy issues; the private sector has ... an important role in the development of the internet, both in the technical and economic fields; civil society has also played an important role ... at community level ... international organizations have an important role in the development of internet-related technical standards" (point 49). Lastly, the document recognises the ethical dimensions, the value of diversity and the role of the media.

With these elements open to discussion, the second phase was carried out, which ended with a pledge (known as the Tunis Commitment). It should be noted that the start of the Summit was not free from controversy, as the authoritarian regime of Tunisia prevented several journalists from attending, highlighting the democratic shortcomings in some countries, which could become a problem when deciding on worldwide infrastructures and technologies. However, the Summit was held with the participation of representatives from the governments of the different participating countries, engineers from the private sector and representatives from civil society, who also played a leading role.

The outcome of the debate gave rise to a pledge (Tunis Commitment) based on the distribution of tasks to be carried out by each of the groups of actors involved in the process, while recognising that the debate would continue. In this way, the role of technicians was recognised, at the same time as stressing the sovereign right of states regarding international policy.¹⁷ The Tunis Commitment therefore aims to identify the "public policy" issues: the equitable distribution of resources, universal access, technical stability and security of information exchanges, the need to combat the digital divide, both at a functional and geographical level, and multilingualism, among others.

Regarding governances, and thanks to the Working Group on Internet Governance established during the process, a consensus was achieved regarding what internet governance is. This definition was an initial attempt to reach an agreement regarding the actors involved and the functions of each one in the segments that support the existence, maintenance and development of the internet. Governance is therefore considered to be "the development and application by governments, the pri-

vate sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet". This definition, although not explicitly contained in the Tunis Commitment, is the nearest example of a decision, consisting of creating a permanent forum of debate regarding governance based on multilateralism.

At a practical level, the Summit's decisions can be summarised into two: 1) the creation of the Digital Solidarity Fund to finance infrastructures in developing countries and to carry out the One Laptop per Child initiative, to improve access to new technologies in less developed countries, distributing computers around the world, produced at a low cost, and 2) the creation of a continual forum of debate, the Internet Governance Forum, to continue the work carried out by the WISI, defined as a forum for multi-stakeholder policy dialogue on the technical and political aspects of the internet, to foster its sustainability, robustness, security, stability and development. It does not have the authority to decide on any aspect and has a markedly technical profile. However, its working groups (dynamic coalitions) are always made up of professionals, members of governments, of civil society and international organisations. It is therefore an open debate and has established itself as a permanent one, whose characteristics are continually changing.

To date, and although the actors involved see the IGF as an opportunity to continue the dialogue established, it seems that one of the problems lies in the difficulty to take decisions. In any case, this is one of the initial moments in developing the idea of governance, to some extent establishing the idea in relation to the debate on the internet. Later on, we will see that this basic notion of governance can produce diverse views and there are proposals to make it function and evolve so as to give rise to debates and technical and social solutions. It should be noted that the notion of governance is differentiated from the notion of government, because it involves the participation of all social actors (the business sector and civil society) in debates of general interest and in public policymaking.¹⁸ Consequently, the participation of the public and private sector will become a key element in the debate on governance in general and the internet in particular.

3.2. The normative function in governance: from inappropriate self-regulation to joint regulation?

Among the functions set up as a result of governance is the function of deciding the operational parameters of technologies, i.e. issuing technical standards. In the first section, we referred to the capacity of technical standards to determine the uses of technology. In fact, and according to Lessig, whoever defines the code can decide what can be done and what can't, and if this capacity is to be left in the hands of private powers, they will create a privatised standard.¹⁹ The evolution of technical standards has given the internet a multidimensional nature that is flexible at a macro level but allows "code-based" controls to be established at a micro level. This characteristic gives rise to different

results, something which allows controls to be established of an authoritarian type in certain countries (centralised, such as in Saudi Arabia, or privatised, as in China).²⁰ In democratic countries, regulatory, legislative or administrative intervention is also possible but this response is necessarily more limited, given that legislation responds to certain social values and political and economic principles and must therefore be aimed at satisfying the general interest. Protecting net neutrality is a good example of the classic capacity of normative intervention.²¹ At least, the international nature of the internet and the global nature of the implications of its use have given rise to a highly complex debate that highlights the pros and cons of the different models that exist, as well as national legislative policies. For this reason, the importance of technical standards increases the interest of public institutions in global regulatory debates.

There has often been talk of the internet as a product of self-regulation. In reality, we can go further and characterise it as a "club regulation" that, according to Du Marais, is carried out by the operators of a market so that, although it is more agile, can also help to exclude.²² However, if we take into account the fact that this is a debate in which a very small number of the actors involved in the market take part, we can conclude that this is not self-regulation in the strict sense of the term. In fact, the very definition of self-regulation is problematic for those lawyers who have taken it on. Price and Verhulst refer to this context as a 'cornucopia of institutions', due to the diversity characterising them. Moreover, it is not an industry but a group that cannot be subdivided into different sectors of an industry as it involves different but interrelated levels of activity. It is a restricted concept of self-regulation, incidentally, that does not include the end users or other participants or interested parties.²³

So we are currently facing a context of inter-regulation that goes beyond the many different decision-making centres for technical standards (which might be seen as multi-regulation), as the various technical standards are related to each other but also to regulations of very different types, according to the definition provided by Frison-Roche.²⁴ Moreover, there are very different relations between the technical standards and legal regulations, situations that change also according to the legal context in which they find themselves.²⁵

In this context, states have lost their normative capacity but they need to be present in the regulatory debate in order to focus the objectives, operational methodology and structure of the organisations involved in creating technical standards or managing internet resources on the general interest.²⁶ This need comes up against some inconveniences not only because the creation of technical standards and internet management are distributed among different organisations but also because the *status quo* depends, in part, on the policies and decisions taken by the United States government (remember that the work of ICANN is conditioned by an Agreement with the Department of Commerce). This kind of conditioning factor has given rise to the expression *Americanisation*, according to which the United States imposes a model of internet administration that the rest

of the countries follow so as not to remain outside the technological and social progress it represents.²⁷

Up to now, the role of public institutions has been limited to validating, in one way or another, the private or self-regulated standard when this coincides with the objectives of public policies or doesn't challenge them, a technique Timsit has referred to as "reinventing legitimacy".²⁸ Some authors have clearly expressed their mistrust of this way of handling internet regulatory debates, as it does not allow general interests to be represented nor does it protect against abusive or inequitable behaviour.²⁹ This situation of the multi-form management of the internet is a general characteristic of globalisation and the same phenomenon occurs in many other sectors.

But there are significant deficits in terms of transparency, participation (highly asymmetrical, with notable participation by the business sector) and, in short, of legitimacy, which should be reduced through the efforts of civil society or at least by establishing guarantees that reduce this asymmetry.³⁰ At the same time, national administrations and regulators, which retain significant authority in the economic and telecommunications area, suffer from deficits related to efficacy and need the skill to correctly exercise the powers assigned to them, given their highly technical content. This situation is known as *equal deficits* and it refers to the mutual interdependence of national and international regulators.³¹

The action model for institutions, especially European ones, takes into account the fact that this is a critical resource, given that it is an essential instrument for economies and for citizens to exercise their rights. It should also be remembered that, when there are significant failures, citizens will demand solutions from their governments.³² Finally, we should also note that the internet's functionality is due to its open, interoperable nature. And, obviously, everyone must be able to make their own contribution; engineers and citizens. In this context, the European Commission and Parliament advocate a multi-stakeholder model that includes and represents all parties and, in this respect, the Internet Governance Forum meets these requirements within a cooperative regulatory framework.³³

The evolution taking place (and ICANN is a case in point) suggests a political activity aimed at taking regulatory activities towards organisational formulas that include mechanisms of greater transparency and public participation, as well as other parameters of action aimed at meeting the public's needs (multilingualism, for example). This situation reminds us of the characterisation of the flux between institutions and self-regulation characterised by Darnaculleta as "regulated self-regulation", which highlights the emergence of public intervention whose aim is to order the purposes, the objectives of private regulation.³⁴ There are at least several scenarios in which institutions take part directly in technical regulation and attempt to assert their needs and those of the public, participating under equal conditions with the private sector and civil society. Consequently, in some cases it might be more appropriate to talk of joint (technical) regulation.

This joint regulatory scenario constitutes a methodology that is more open to all kinds of relations, going beyond the paradigm of *command-and-control*, which is the traditional scenario, hierarchical and one-directional. Various proposals are being drawn up regarding governance, some focused on establishing the dimensions (objectives, actors, capacities and mechanisms) and others on identifying the responsible elements that operate at any given time to encourage cooperation between them and the inclusion of the rest, or others that prioritise the observance of relations between different agents. The Spanish group of experts, for its part, believes that the internet's value chain should be analysed to identify the agents, their responsibilities and the key elements in the debate, as well as the control exercised by the agents involved over each other.³⁵

In short, the relevance of technical standards affects any technological development and is no longer limited to managing domain names or how servers work but all the shared mechanisms, both public and private, that affect how the internet functions, ranging from issuing technical standards to managing resources and including economic regulation. For this reason, as Professor Barnés has explained, the concept used to tackle questions related to the internet, governance, is a notion that has transcended each particular aspect and is related to the principles and methodologies used to tackle the directive processes in which governments, the private sector and civil society take part through their respective responsibilities, shared principles and decision-making processes in order to determine the development and use of the internet, and which constitutes a reaction to globalisation and to the transcending of national sovereignty.³⁶ In this respect, we believe the scientific view called for by Barnés is both useful and necessary, not only to introduce an interdisciplinary focus and adapt the theoretical instrumentation and administrative practice to the new requirements but also to identify those elements of general interest involved in internet governance and, in general, new technologies,³⁷ as well as to identify the needs and capacities of citizens and civil society in terms of the general interest.

4. Conclusions

The debate on internet regulation represents a complex scenario we have attempted to describe. The responses being provided by the different governments and administrations have been accompanied by caution, given the importance of the internet for today's societies. This debate confirms that we are not dealing with an object that is impermeable to legislative action or administrative action, but neither is it a problem that can only be tackled via the traditional instances.

The main problem lies in the fact that the power of technical standards related to the internet far exceeds the capacity of traditional technical standards to condition public and private activities. Although technical standards came to prominence due to their capacity to produce effects in terms of accountabil-

ity, for example in the area of industrial safety and the environment, the incidence of computing technical standards is much stronger: they produce regulation and distribute resources. Areas of mutual influence are starting to develop and, although some are still not very permeable, institutions are starting to demand more open, more transparent and more common technical regulatory frameworks.

At the same time, knowledge and involvement in technical regulation allow public administrations to adjust their activities to the new requirements generated by new technologies and to the new problems resulting from these. To tackle this, such technical knowledge must be integrated within the administration's understanding of the situation, and old and new measures must be used to defend the rights of citizens and general interests. In this way, the administration will be more effective in achieving its objectives in a society that is increasingly calling for democratic self-governance to defend the general interest and equal opportunities, as well as full involvement in political, social and economic life.

The notion of governance represents a compromise that hints at a complex web of relations and responsibilities. Its very definition is complex because, although it repositions each actor with its accountabilities, it is difficult to clearly define to what extent an actor can demand action from another or the legitimacy of one action compared with the rest. In fact, the very conception of governance may be dynamic and those that, at any particular moment, are the main agents in detecting a problem might very well form part of the solution in another situation. In any case, the debate that started in the first decade of the 21st century is leaving behind quite an interesting legacy that, when the internet was in its infancy, was crucial for its development: no internet node can decide for the rest and, on the other hand, all nodes can work together to increase its operational capacity, efficiency and, especially, to ensure it remains permanently open to those elements that are not exclusively technical, which are a common ground and a guide for its destiny: a free, equal and shared internet.

Notes

1. The basic standards related to data filtering are included in request for comments (RFC) no. 2309 and 2474 and were produced by professionals belonging to companies with interests in this area, especially by Cisco. This situation, which is constantly repeated in defining technical regulations, could be a source of distortions that we identify as distortions of competition and conflicts of interest.
2. BERNERS-LEE, T. *Tejiendo la red*. Madrid: Siglo XXI de España Editores, 2000, p. 121.
3. SOLÁ, J. "Prólogo a la edición española". In: BERNERS-LEE, T. *Op. cit.*, p. IX-XIII.
4. This name makes sense given the context in which the internet started to be built. The first engineers were university lecturers who left part of the work in the hands of postgraduate students who, on the one hand, knew that the army was heading the project and, on the other, that at any time the lecturers might give their opinion. Hence the now famous statement in RFC no. 3, relating it to May '68: "These standards (or lack of them) are stated explicitly for two reasons. First, there is a tendency to view a written statement as *ipso facto* authoritative, and we hope to promote the exchange and discussion of considerably less than authoritative ideas. Second, there is a natural hesitancy to publish something unpolished, and we hope to ease this inhibition". Crocker, who wrote the note, claims to have spent all night writing the text. This is surely one of the most interesting episodes in the history of the internet, which would give it a libertarian air that, whether it's true or not, has given the internet an unprecedented openness and flexibility. The only existing reference can be found at: <<http://www.eumed.net/cursecon/ecoinet/conceptos/Crocker.htm>>
5. Consult RFCs no. 2026 (type of RFC and procedure) and 3935 (functioning of the IETF).
6. See a review of his contribution to the internet: <<http://www.eumed.net/cursecon/ecoinet/conceptos/Postel.htm>>
7. There are five regional internet registries (RIR): AfriNIC, which covers the geographical zone of the African continent; APNIC, for the Asian and Pacific zone; RIPE, for Europe; ARIN, for North America, and LACNIC, for Latin America and the Caribbean. These RIRs work independently and can establish additional filters to participation, such as the need to have the backing of an RIR member.
8. The ICANN Articles of Incorporation can be consulted at <<http://www.icann.org/>>, in the "Documents" section.
9. European Commission communication to the Council and Parliament regarding the organisation and management of the internet. Questions on European and international policy 1998-2000, of 11 April 2000 (Document COM 2000, 202 final). <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2000:0202:FIN:EN:PDF>>
10. See PEAKE, A. *Internet Governance and the World Summit on the Information Society (WSIS)*. [Online]. Association For Progressive Communications, 2004, p. 16. <<http://www.apc.org/es/pubs/issue/internet-governance-and-world-summit-information-s>>. [Consulted: 15 July 2011]
It's worth noting that Adam Peake has played an active role in ICANN since it was set up in 2000.
11. CAROTTI, B. "L'ICANN e la governance di Internet". *Rivista trimestrale di diritto pubblico*, no. 57/3 (2007), p. 683 and 721.
12. For a more exhaustive explanation of the UN's first steps regarding this issue, see PÉREZ, J. "Gobierno de las tecnologías de la información y las comunicaciones". In: PÉREZ, J. (coord.). *La gobernanza sobre Internet. Contribución al debate mundial sobre la gestión y el control de la red*. Barcelona, Madrid: Ariel - Fundación Telefónica, 2010, p. 25 and sub.
13. The holding of a World Summit on the area is an initiative agreed in 1998 by the ITU Plenipotentiary Conference (Reso-

- lution 73, Minneapolis, 1998), and its Secretary-General made a proposal for a summit in two phases, which was adopted by the UN General Assembly (Resolution 56/183).
14. In accordance with the UN General Assembly Resolution that gave rise to the WSIS (Resolution 56/183, of 21 December 2001, point 5), the preparatory committee, made up of state representatives, had to define the types of participation of other stakeholders as well as encourage the contribution not only of UN bodies, international organisations and states but also organisations from civil society and the private sector.
 15. In accordance with the Resolution (Resolution 56/183, of 31 January 2002), of the UN General Assembly, the preparatory committee, made up of representatives from the Member States, had to decide on the modalities of the participation of other stakeholders, as well as encourage contributions not only from UN bodies, international, states, civil society organisations and the private sector. "5. *Encourages* effective contributions from and the active participation of all relevant United Nations bodies, in particular the Information and Communication Technologies Task Force, and encourages other intergovernmental organizations, including international and regional institutions, non-governmental organizations, civil society and the private sector to contribute to, and actively participate in, the intergovernmental preparatory process of the Summit and the Summit itself".
 16. Document WSIS-03/GENEVA/4-S, of 12 May 2004.
 17. Tunis Commitment, 18 November 2005, Document WSIS-05/TUNIS/DOC/7-E. Point 9: "**We reaffirm our resolution** in the quest to ensure that everyone can benefit from the opportunities that ICTs can offer, by recalling that governments, as well as private sector, civil society and the United Nations and other international organisations, should work together to: improve access to information and communication infrastructure and technologies [...]".
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Visual impact and eye fixation of non conventional advertising (NCA) on television among young people and the elderly

ELENA AÑAÑOS

Tenured lecturer at the Department of Basic and Evolutionary Psychology and Education, Faculty of Communication Sciences at the Universitat Autònoma de Barcelona

Elena.ananos@uab.cat

Abstract

The purpose of this study is to analyze the visual attention of young and older subjects while viewing TV programs snippet showing non conventional advertising formats. The results, analyzed in terms of eye fixations and heat maps, show how formats studied capture the gaze depending on their characteristics and age of the subjects. Although this type of advertising appears on the screen as a distractor element where the viewer does not intend to attend, it has a clear effect on his visual attention. These advertising formats might influence viewer's behaviour.

Keywords

Non conventional advertising, eye tracker, visual attention, television, advertising

Article received on 06/06/2011 and accepted on 07/07/2011

Resum

L'objectiu de l'estudi és analitzar l'atenció visual dels subjectes joves i grans mentre visualitzen fragments de programes de televisió on apareixen formats publicitaris no convencionals. Els resultats, analitzats en termes de fixacions oculars i mapes de calor (HeatMap), mostren com els formats estudiats capten la mirada en funció de les seves característiques i de l'edat dels subjectes. Tot i que aquest tipus de publicitat apareix en la pantalla com un element distractor, al qual la persona telespectadora no té intenció d'atendre, té un efecte clar sobre l'atenció visual del subjecte i podria influir en la seva conducta.

Paraules clau

Publicitat no convencional, eye tracker, atenció visual, televisió, publicitat

1. Introduction

1.1. Formats of non conventional TV advertising

The many different TV channels and the diversification of new vehicles that help to distribute audiovisual advertisements such as the internet and mobile and satellite technology are resulting in stiff competition within and outside the television industry. According to data from the *Estudio InfoAdex de la inversión publicitaria en España 2010*, television continues to be the main (conventional) medium in terms of volume of advertising business, although in 2009 TV advertising spend fell sharply (by around 23%) while internet advertising grew. The situation is starting to look more optimistic in 2010 (*Estudio InfoAdex 2011*), as TV advertising spend was higher than in 2009, both on national channels (by 2.3%) and regional (by 14.7%) and pay TV channels (by 30.1%).

Within this panorama, advertisers have been developing a whole range of non conventional strategies on television and broadcasters' programmes have gradually adopted new advertising formats we call *non conventional advertising*. However, there are many different ways to describe non conventional TV advertising such as *other advertising formats*, *new advertising formats* and *non-ad advertising* (Farré and Fernández Cavia

2005); other authors call them *special actions on television* (Ribés 2006, 2010), abbreviated to AAEE in Catalan, or *special advertising on television* or PETV (Segarra 2008).

In this article, *non conventional advertising* (NCA) is used to refer to communication or commercial advertising on television that is not present in the form of advertisements; i.e. that differs from a conventional spot. The clearest difference between both kinds of advertising is that a spot is shown totally independently of the programmes while this does not happen in most NCA formats. Although the spot is still the most widely used format on television, the advertising industry is experimenting with these alternative formats that could be used as complements and enable some of the problems threatening TV advertising to be avoided, such as saturation and audience fragmentation, among others (Farré and Fernández Cavia 2005). To date, NCA is believed to have a high level of efficacy, awareness and recall given that, as it can be located in preferential and outstanding positions, it is capable of avoiding the phenomenon of zapping (Segarra 2008).

The use of NCA on television is constantly evolving. The search for and appearance of new formats and new combinations (hybrids) make it difficult to classify as different criteria can be used, such as the duration of advertising formats, their relation to programming (interposed, attached, inserted or replaced), the

advertiser's degree of control over the final result of the commercial message and how easy it is for viewers to identify the advertising format as a message with a commercial purpose (Farré and Fernández Cavia 2005). One of the most recent classifications, made by Segarra (2008), considers the following special formats that might be found on television channels:

- Brand placement.
- TV sponsorship (of TV programmes or sections).
- Televised sponsorship (references, via a logo, to events, acts or other advertiser sponsorships).
- Multi-screen or split-screen (when the TV programme being broadcast is seen at the same time as the advertising messages).
- Morphing (change or transformation of the channel's logo or of the advertiser's communication).
- TV promotions.
- Infomercials.
- Internal spaces within the programme.
- Supers.
- The channel advertising itself or its programmes.
- Bartering programmes (when the advertiser creates the TV content)
- TV sales.

This article analyses three NCA formats with shared characteristics: they have a more or less short duration and appear immersed and integrated within the TV programme, without interrupting it:

a. Supers

Supers are graphic advertisements, static or moving, with text and/or image, that appear on a part of the TV screen, usually at the bottom, for a few seconds and show an advertising message to the audience while it is watching a programme. A super doesn't interrupt the programme's viewing and, as it only lasts a short time, makes the programme relatively dynamic. Supers used on television are usually innovative and creative.

b. Animated visual symbols

This format, also called morphing, initially consisted of an animated transformation of the channel's (or producer's) logo into the advertiser's logo or object. It appears suddenly from time to time and doesn't last long. It doesn't have a specific size but is usually smaller than the other formats. As an advertising format, it can be used to attract viewer's attention to any part of the screen. It is currently used within programming and often without varying the original format, which might be the channel's or the advertiser's symbol, so that, in cognitive and information processing terms, it can be considered as a kind of dynamic super.

c. Split screen

This is a format in which, while a programme is being broadcast, the television screen is divided into two. One part shows, without sound, the continuation of the programme the viewer was watching and another, the advertising block,

with sound. The screen where the programme continues is usually smaller than the screen showing the advertising block. The aim of a split screen is to retain as many viewers as possible during advertising breaks. Although the split screen respects the desire of the viewer to watch the programme and avoids the intrusive nature of conventional advertising, the programme is clearly devalued in favour of the advertising and it often lasts longer than a super. Use of a split screen is associated with long programmes, often live, that employ this format to ensure viewers don't lose the thread of the programme they're watching.

The aim of these NCA formats is to attract viewer attention, encourage them to buy or use the product or service being advertised and to boost loyalty to the channel's programming. By ensuring the programme isn't interrupted, they attempt to avoid the zapping phenomenon, which leads to the conclusion that studying such formats is important and strategic.

1.2. Visual attention and advertising

If we consider the cognitive processes involved in processing information, supers, split screen and morphing partly share the kind of cognitive processing a viewer (subject) carries out of the information (advertisement): they are integrated within the programming and last more or less a short time; regarding how a viewer identifies them, the split screen is easy to recognise, while supers and morphing vary in their ease of identification depending on the specific characteristics of the format (where they appear, duration, colour, etc.).

From the point of view of the attention paid by the subject while watching television, the attention focused on a specific element (programme) is split (divided attention) in order to attend to a stimulus that, from the perspective of cognitive psychology, we call a *distractor* but which, from the point of view of advertising objectives, becomes a stimulus the viewer should attend to (advertisement). The aim of these NCA formats is therefore to catch the subject's attention and ensure the advertising format is *attended to* and processed.

Two questions arise out of these points:

1. Are these advertising formats really effective? In other words, to what extent do they catch the viewer's attention?
2. Do these formats affect all viewers the same?

The answer to the first question leads us to study the elements of attention related to this kind of TV advertising. According to the *attention network* model (Posner and Petersen 1990), attention covers a series of specific, independent *networks* or areas of the brain that cooperate and function together: the vigilance, orienting and executive networks of attention, characterised in cognitive, neuroanatomical, neurochemical and physiological terms (Posner, Rueda and Kanske 2007). One of the functions of the latter attention network is to direct attention towards a place in space where a stimulus appears that is potentially salient due to its unique features, either because it is

new or because it appears suddenly in view. New stimuli have the capacity to attract the attention automatically. This focusing of attention produced by the features of the stimuli is known as *exogenous* or *involuntary attention orientation*. According to this model, NCA appears as a salient stimulus that will catch the involuntary attention of the viewer.

Recently, the phenomenon of attentional capture has been investigated as part of a study of visual attention; i.e. the conditions under which non-salient stimuli obtain involuntary attentional priority. Attentional capture occurs automatically (via exogenous factors) although it is also susceptible to endogenous modulation (Ruz and Lupiáñez 2002, Botta and Lupiáñez 2010, Pacheco-Unguetti, Lupiáñez and Acosta 2009). Advertising uses exogenous stimuli to involuntarily capture the attention of the subject (especially visual attention), corresponding to the physical characteristics of the advertising stimuli, of the advertisement, such as colour, size or duration, and also elements of surprise (Nail 2007) related to *where* and *how* the advertisement appears. Its effect will also depend on subject-related factors (endogenous) related to the advertisement, such as motivation, predisposition, etc.

Another theoretical reference in studying attention is the work by Lachter, Forster and Ruthruff (2004). According to these authors, attention functions as a filter that can be directed from one source of stimulation to another and which is found at the information input. Before the attention stage and because of serious limitations in capacity, this filter analyses the physical characteristics of stimuli, which determine which stimulation will go on to a higher level of processing. NCA formats are therefore processed at this *pre-attentional* level.

Another cognitive process approach occurring in the processing of these NCA formats, and particularly with supers, is based on the flanker compatibility effect or FCE (Eriksen and Eriksen 1974). This effect shows how identifying an objective stimulus can be affected by other stimuli (called *flankers* or *distractors*). Attention does not seem to be an essential condition for this effect to occur since the FCE is still significant even if flankers are minimised or the subject is instructed to ignore them (Pedraja, Montoro and García-Sevilla 2010). According to this theory, non conventional advertising formats appear as *distractors* and, although the subject pays no attention to them, they will be processed in a similar way (automatically) as the FCE distractors; the level of processing will depend on the physical and/or category-based characteristics of the stimuli. This kind of advertising appears on the screen as a new element which the subject has no intention of paying attention to (Añaños, Mas and Estaún 2009), although this does not stop it from having a clear effect on attention (Pieters and Wedel 2007). Lachter, Forster and Ruthruff (2004) use the term *leakage* to describe the semantic processing of distractors while attention is placed on another part. If this scenario is transferred to TV audiovisual content, we find that these formats *invade* the screen and attempt to catch (like a leak) the user's attention. So advertising supers, from an attentional point of view, can be explained in

the terms used by Lachter, Forster and Ruthruff (2004), who distinguish between two key concepts: *leakage* and *slippage*, which correspond to diverting the attention towards a non-salient stimulus, perhaps unintentionally. Other variables are involved in this processing that depend both on the format used for their presentation and the cognitive and individual characteristics of the subjects (Añaños et al 2010).

Looking at attention and advertising leads us to the concept of *visuality* or the capacity of a graphic composition and the elements that compose it to attract a subject's attention (Añaños et al 2009). Over the last decade, research has been aimed at the commercial applications of eye tracking technology to assess the attentional effectiveness of visual marketing (Pieters et al 2002). This is where neuromarketing appears as a modern discipline, a product of the coming together of neuroscience and marketing, whose aim is to incorporate knowledge of brain processes (neuroscience), in other words the cognitive and sensory responses or reactions of a consumer to different stimuli within advertising (the advertisement), into marketing and sales, applying the data and possibilities of so-called *brain science* (Dooley 2011); the aim of neuromarketing is to provide insight into the cognitive impact of advertising in order to improve the effectiveness of commercial actions. Regarding the subject of this article, visual attention is closely related to the sensory response of eye movement and *eye tracking* has shown itself to be a powerful technique for evaluation, as it examines the movement of the eyes and helps to study the amount of attention given to the visual elements of a stimulus and the order in which they are attended to (Pieters and Wedel 2007; Wedel and Pieters 2007), providing highly valuable information on the identification and categorisation of visual objects. Numerous studies have endorsed its usefulness, particularly notable being those by Altmann and Kamide (2009) and Brasel and Gips (2008). That is why, in this article, *eye tracking* is used to measure the visual impact of non conventional advertising.

In order to answer the question of whether this process affects all subjects the same, we need to consider the evolutionary aspects of visual attention. Theories are divided regarding the loss of cognitive skills due to ageing, as some show that the latency of eye fixation and visual tracking increases with age, while there is no evidence that the precision of eye movements decreases with age. Some studies reveal that fixation accuracy (related to the amplitude ratio of the fixation and target eccentricity) decreases with age, while others don't find any effect related to ageing. These authors specify that, although the gain in fluid tracking of eye movement is less in older than younger subjects, this difference is very small.

There is no significant evidence that eye movement accuracy changes significantly with age or that eye movements contribute significantly in psycho-physical decisions regarding the overall flow direction under near viewing conditions. Perhaps the age differences observed are rather caused by differences in perceiving movement than by differences in eye movement, as pointed out by Sharpe and Sylvester (1978).

2. Objective and hypothesis

The main aim of this study is to fill the gap in research regarding the effectiveness of non conventional advertising on television, studying and measuring objectively (eye tracker) to what extent viewers attend to this kind of advertising information, NCA, and the visual impact caused among young and older subjects. The general hypotheses proposed are as follows:

- Hypothesis 1. There are differences in the visual behaviour of the subject depending on the format studied. In other words, the characteristics of the format studied (super, split screen and morphing) determine the subject's visual behaviour.
- Hypothesis 2. There are differences between the visual behaviour of old and young subjects. These differences depend on the characteristics of the NCA format.

3. Methodology

3.1. Material

a) Stimuli

The stimuli are snippets of TV programmes in which the NCA formats studied appear. To select them, those NCA are analysed that appear on the channels of TV3, TVE, Cuatro and Antena 3 TV; specifically, the percentage occupation (in time) is analysed of the NCA formats of supers, split screens and morphing in the programming for two consecutive days (Wednesday and Thursday) during the afternoon (from 15.45 to 18.30) and evening (from 21.45 to 00.30). The selection is made based on the results obtained from an analysis of 50 hours' programming (see the complete study and findings in Añaños 2011), which show that Cuatro is, by far, the channel that uses the most non conventional advertising (11.56%), followed by Antena 3 TV (1.27%), TV3 (1.21%) and TVE (0.2%), and the one that has the most supers and split screens. It should be noted that it was difficult to select the stimuli due to the short duration of NCA and the problems in separating it, almost always, from other NCA appearing simultaneously (hybrid NCA).

The criteria used in selecting stimuli are whether they belong to the channel with most NCA presence, whether they cover

both prime time periods (afternoon and evening) and whether they correspond to different programmes. The stimuli selected are those of the Cuatro channel, specifically:

- Super (S): snippet from the programme *El Hormiguero* where an advertisement is supered for the *El País* sandwich maker.
- Split screen (SS): snippet from the programme *Fama* where an advertisement appears, dividing the screen, for a videogame that appears in the programme.
- Morphing (M): snippet from the programme *Medium* where an animation appears advertising the channel.

Table 1 summarises the characteristics of each stimulus and the NCA's duration and location on the screen.

Figures 1, 2 and 3 illustrate the segments of the (television) stimuli used where the NCA under study appears

b) Eye tracker

The eye tracker helps to study the subject's eye movements and paths while viewing the stimulus. The TOBII T60 model is used, based on infrared emission and reception with a non-intrusive system. It has a single 17" TFT screen integrating eye tracker technology that operates automatically. It does not have any other device that might alter the subject's attention and allows them to move naturally, as if they were in front of a conventional screen. Subjects only need to place themselves in front of the screen, wait for it to be calibrated (figures 4 and 5) and look at the images presented. Calibration is automatic and is carried out using an infrared camera. The eye tracker takes the following measurements:

- Fixation count (number of eye fixations in a specific area).
- Fixation length (length, in seconds, of eye fixations in a specific area).
- Time from fixation to click (time that passes from the appearance of the NCA format to the first fixation of gaze).

3.2. Subjects taking part

43 subjects took part in the study, divided into:

- 27 young subjects: 20 women and 7 men. University students aged between 18 and 25 (inclusive) who are not studying subjects related to advertising and public relations,

Table 1. Stimulus characteristics (television fragments)

Type of NCA	Programme	Advertising	TV snippet duration (seconds)	NCA duration (seconds)	NCA screen location
Super (S)	<i>El Hormiguero</i>	<i>El País</i> sandwich maker	40	9	Bottom
Split screen (SS)	<i>Fama</i>	Xbox-Warcraft	44	32	Bottom right
Morphing (M)	<i>Medium</i>	Advertising channel itself	37	13	Top left

Source: Author.

Figure 1. Television snippet where the super (S) appears



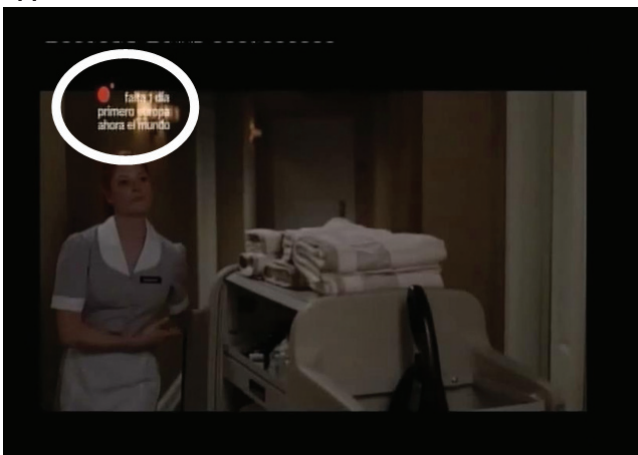
Source: Author.

Figure 2. Television snippet where the split screen (SS) appears



Source: Author.

Figure 3. Television snippet where the morphing (M) appears



Source: Author.

audiovisual communication, design, etc. so that their responses aren't conditioned by their knowledge.

- 16 old subjects: 10 women and 6 men, independent (in terms of their ability to get around), aged between 65 and 80, belonging to day centres for the elderly and who carry out some kind of activity that keeps them active.

The subjects came voluntarily to the laboratory where the experiment was held. Their eyesight is normal or corrected with lenses or glasses and they receive a certificate for having taken part in the research.

Of the initial participants, 38 finally took part in the experiment. Experimental mortality totalled 5 subjects (11.6% of the initial sample); the causes were the impossibility (2 subjects) of calibrating their gaze and therefore of obtaining the TOBI recording, and the loss (3 subjects) of recording data. Table 2 shows the initial and final breakdown of the sample.

3.3. Design

a) Stimuli

The stimuli are 3 television snippets (figures 1, 2 and 3). Each stimulus contains one of the NCA formats under study (table 1):

- Snippet 1: super (S)
- Snippet 2: morphing (M)
- Snippet 3: split screen (SS)

b) Variables

Dependent variables (DV)

Degree of attention given to the NCA formats under study (S, M and SS), measured by the eye tracker and based on the characteristics of the subject's eye fixations regarding each area of interest:

- Eye fixation on the area of interest.
- Fixation count (FC).
- Fixation length (FL).
- Time from fixation to click (TFF).

Independent variables (IV)

- Type or format of non conventional advertising: super (S), morphing (M) and split screen (SS).
- Age of participants: young and old.
- Gender of participants: male and female.

c) Experiment design

All subjects experienced the same experimental situation and the same stimulus conditions (S, M and SS). The stimuli were presented randomly. The design used is an exploratory study with a block design (individual) and random assignation of the possible treatment sequences (advertising stimuli).

3.4. Procedure

The experiment was carried out individually with each participant. The phases followed in the procedure were:

- Phase 1: welcome, explanation and consent of participants.

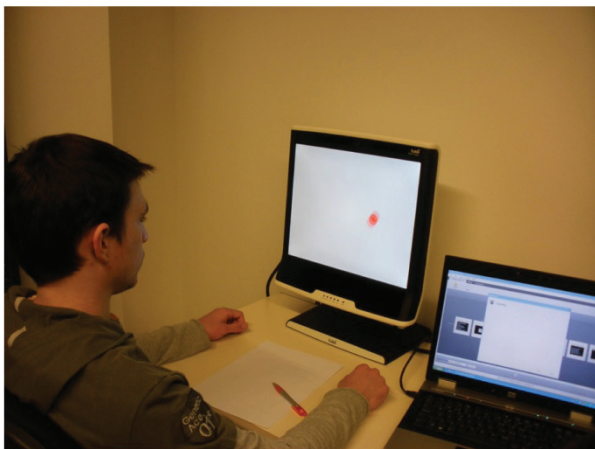
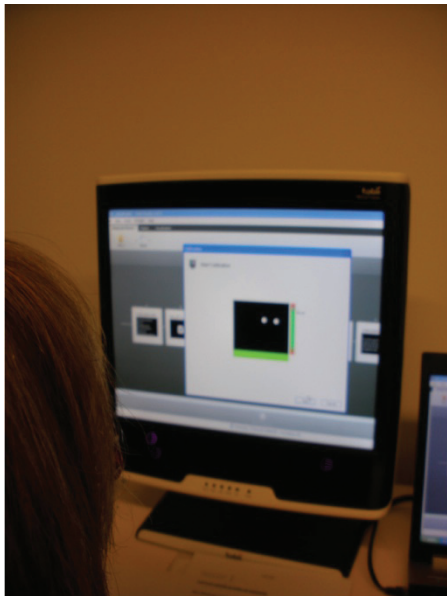
Table 2. Initial and final breakdown of the subjects taking part in the experimental stage

	Initial subjects			Final subjects		
	Women	Men	Total	Women	Men	Final*
Young	20	7	27	18	7	25
Old	10	6	16	9	4	13
Total	30	12	43*	27	11	38*

* Experimental mortality totalled 5 subjects: 11.6% of the initial sample.

Source: Author.

Figures 4 and 5. Calibrating the subject's gaze with the eye tracker



Source: Author.

- Phase 2: calibrating the eye tracker, presenting stimuli and recording the subject's visual behaviour. The calibration of recordings ensures that the subject's gaze is correct, i.e. that it will contain a minimum of 90% of the visual records (figures 4 and 5); for the calibration, the subject must follow with his or her eyes, and without moving the head, a red point that is moving (randomly) on the screen.

Once the gaze has been calibrated, the validity of the subject is confirmed to gather data, the stimuli are presented and the eye tracker data gathered. The subject is told "Now you will have to look at the images as if you were watching television".

4. Results

To analyse the findings of the subject's visual behaviour on a specific zone of the screen for each of the segments presented, areas of interest (AOIs) are selected and created with the eye tracker. In each stimulus, the AOIs are those zones on the screen that capture most eye fixations, or the areas or zones on the screen where it is useful to measure eye fixations. After analysing, with the eye tracker, the creation of automatic AOIs to visualise hot spots (greatest eye fixation), the AOIs selected for each stimulus (super, split screen and morphing) correspond to the space (area) they occupy on the screen during the segment where the NCA formats appear (figures 1, 2 and 3).

4.1. Fixing gaze on each NCA format and in each group studied

This analysis shows whether the subjects' gaze has been fixed on each of the NCA formats during the presentation of each stimulus. The results are obtained by analysing the percentage of subjects with eye fixations on each AOI. Graph 1 shows the results obtained with young and old subjects.

Graph 1 shows how all the subjects have eye fixations with the split screen and most with the super. The findings for morphing are different, as 92% of the young subjects fixed their eyes on this format while only 77% of the old subjects did so; this means that the eyes of 23% of the old subjects did not fix on the morphing at any time.

4.2. Analysis of the fixation count (FC) on each NCA format under study

This analysis is carried out by comparing the median (Kruskal-Wallis Test) fixation count (FC) on each area of interest for each NCA format under study. The results obtained can be seen in graph 2.

The results (graph 2) show that there is no statistically significant difference between the young and old subjects in the median FCs in any format. An individual analysis of each format shows that the median FC for the older group is slightly higher with supers and split screen and a bit lower in morphing. In general, the split screen FCs are higher than those for the other formats.

Figures 6, 7 and 8 show, based on the heat maps produced with eye tracker, the FC groupings in the AOIs studied for all subjects during the presentation of each stimulus (snippet of television programme). The darker areas indicate where the eye fixations are more concentrated. These heat maps show, in relation to each NCA format, the following characteristics:

- Super: eye fixations are concentrated on the faces of char-

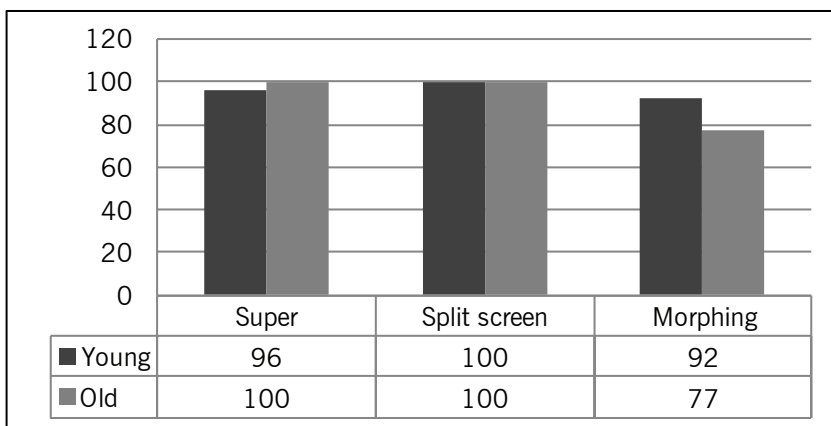
acters and on the super, confirming the existence of eye fixations on this non conventional advertising format.

- Split screen: eye fixations are concentrated mostly on the zone of the screen where the advertising appears, although there are also eye fixations on the zone where the programme is still being broadcast.
- Morphing: eye fixations are concentrated on the programming, although there are also eye fixations on the morphing which appears at the top left of the screen.

Graph 3 shows the results obtained from the young group, where we can see that the number of FCs for the super is statistically significant ($p=.04$) and higher for women than men, the same as with the morphing format ($p=.02$). In the older group of subjects, no statistically significant differences have been found between men and women.

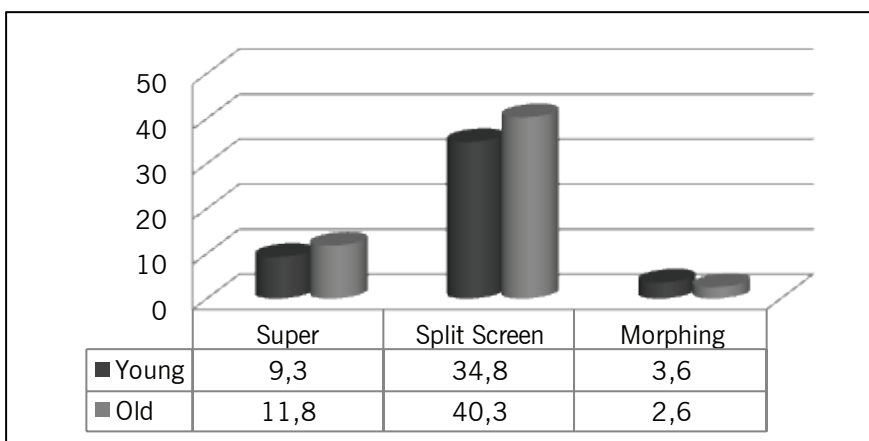
Figures 9 and 10 show, using the heat maps produced by the eye tracker, the grouping of FCs in the AOIs where statistically significant differences have been found between young

Graph 1. Percentage of subjects with eye fixations on the NCA formats

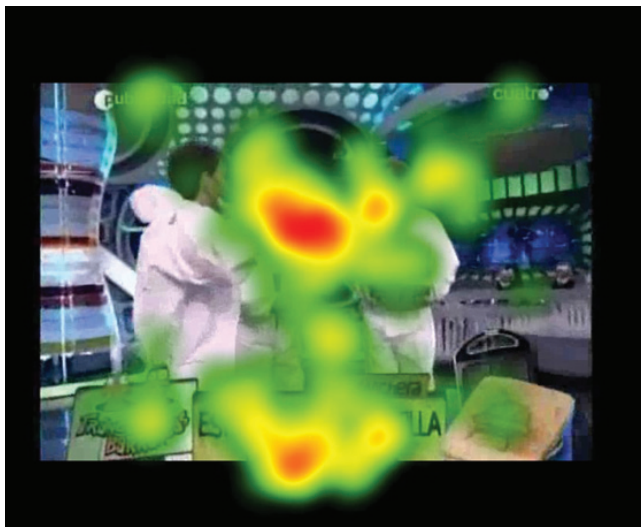


Source: Author.

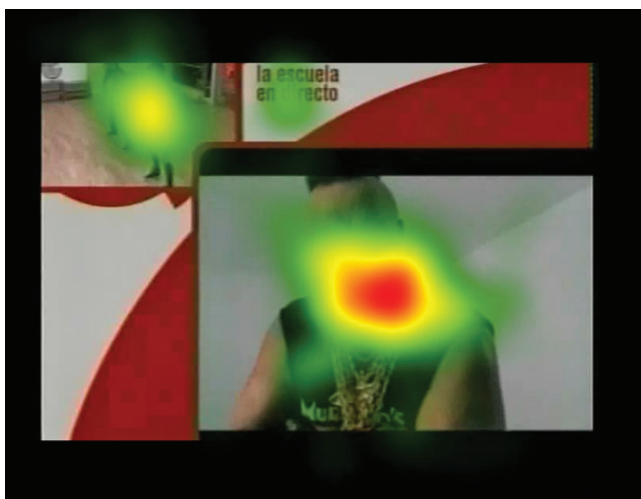
Graph 2. Median fixation count for each age group



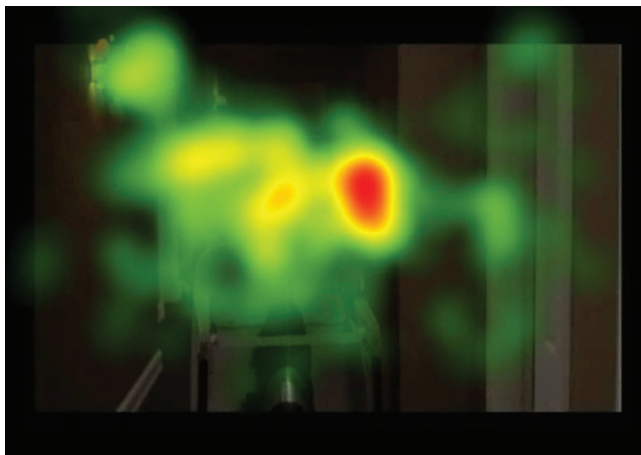
Source: Author.

Figure 6. Heat map of the stimulus containing the super

Source: Author.

Figure 7. Heat map of the stimulus containing the split screen

Source: Author.

Figure 8. Heat map of the stimulus containing the morphing

Source: Author.

men and women. Figure 9 (super) shows how the eye fixations of young women (darker zones) are located at the bottom of the screen, where the super NCA appears. Figure 10 (morphing) shows how there is some concentration of young women's eye fixations on the zone where the morphing appears (darker area at the top left of the screen).

4.3. Analysis of the fixation length (FL) in each NCA format

This analysis is carried out by comparing the median (Kruskal-Wallis Test) duration in seconds of the FLs in each area of interest for each NCA format and each age group. The results (graph 4) show no statistically significant difference between the young and old groups in the FL for the super or morphing, while there is a statistically significant difference ($p < .02$) for the split screen FLs, where the fixation length for young people is higher than that for the older subjects. No statistically significant differences have been found between men and women in the age groups studied.

4.4. Analysis of the time from fixation to click of the NCA format (TFF)

This analysis (TFF) is carried out by comparing the median (Kruskal-Wallis Test) time in seconds taken for the subjects' gaze to fix for the first time on the NCA format from the time it appears on the screen.

The results (graph 5) show differences in the visual behaviour for the three formats. The split screen TFF is zero, as it invades the subject's vision by its very nature, without giving the option to look anywhere else and without there being any prior stimulus to "distract" the subject. There is a big difference between the TFF of the super and the morphing, as the TFF is very low for the super and much higher for the morphing.

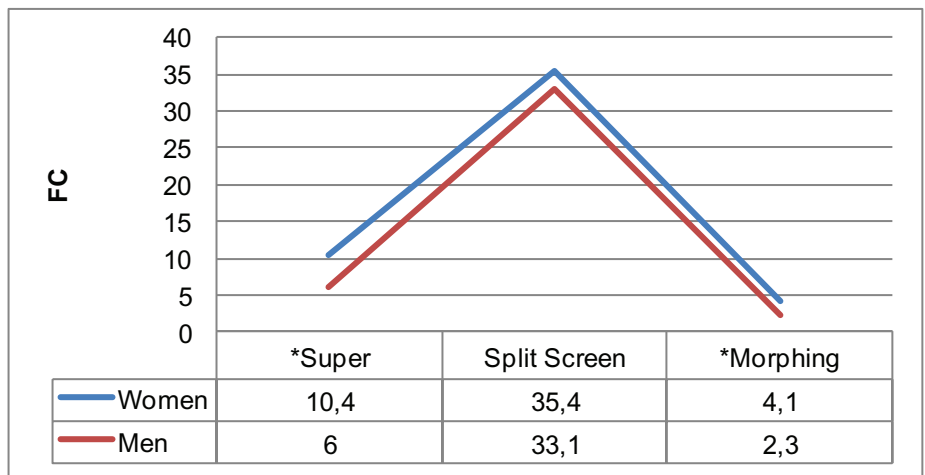
There are no statistically significant differences between the age groups; older subjects have a higher TFF than the younger subjects, indicating that their gaze tends to be slower than that of young people. No statistically significant difference has been found between the TFFs for men and those for women in the groups studied. However, within the young group, the TFF times are lower for the women than for the men (graph 6).

5. Conclusions

In justifying this work, the following question is asked: to what extent do these types of NCA format capture the attention of the viewer? We can conclude that practically all the subjects' gazes are fixed onto the super and split screen, while the young subjects fix their gaze on the morphing but a quarter of the older subjects don't.

Regarding the hypotheses proposed, we can conclude that a subject's visual behaviour depends more on the characteristics

Graph 3. Median eye fixations men-women (young group)



* Statistically significant differences.

Source: Author.

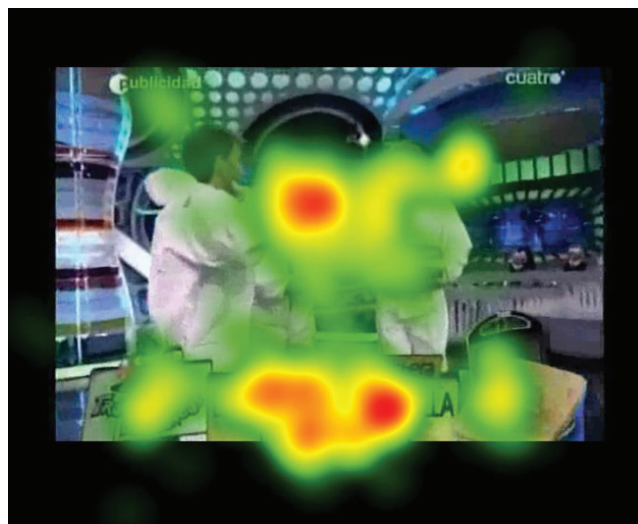
of the NCA format than on age. The number of eye fixations is distributed similarly among young and old subjects, but differs according to the NCA format. Split screen, which is more invasive and with more presence (visual and auditory) on the screen, is the format with the most eye fixations, followed by the super; morphing, a less invasive format on the screen, has the least eye fixations. Regarding the concentration of eye fixations, the heat maps show clear concentrations on the super and split screen, higher among young women, while when the morphing appears, the eye fixations concentrate more on the programme, showing that this advertising format has a lower capacity to capture attention.

With regard to how long the fixations last, the super and morphing show no difference between young and older subjects; split screen, however, does, in the sense that young people dedicate more time to looking at the split screen than older people.

An analysis of the time taken before the first eye fixation on the NCA as from when it appears shows big differences between the NCA formats: the *reaction* time is immediate with split screen and very short with supers, while it is much longer with morphing, both for young people and older. The results allow us to conclude that young women are slightly faster in detecting the *distractors* (NCA) presented than young men.

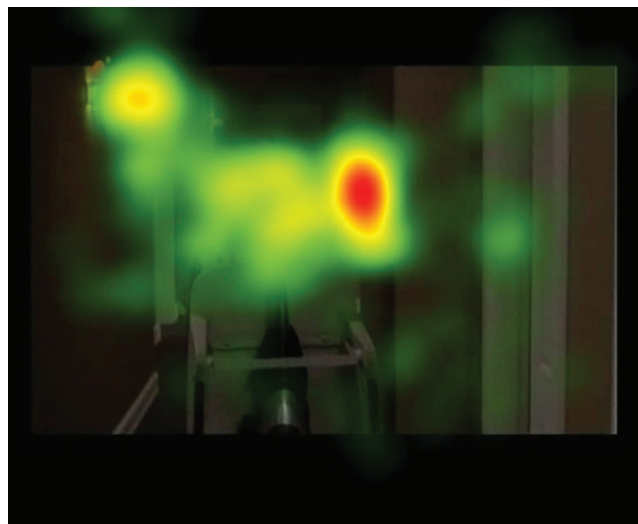
But is this kind of NCA really effective? The results support Broadbent's *selective filter theory* insofar as a *pre-attentional* analysis occurs (in this case, of the NCA formats) via which those stimuli are chosen that will go on to a higher processing level and those that will be ignored. We believe NCA to be a kind of *distractor*: when processing, the human cognitive system (of the viewer) processes TV information selectively but has conflicts at an attentional level when a new element (NCA) interferes in the process and diverts attention towards this new stimulus, which will be processed unconsciously (*pre-attentional*). These results are along the lines described by Privado, Botella and Colom (2010) as a *cognitive conflict*.

Figure 9. Heat map of the stimulus containing the super in young women



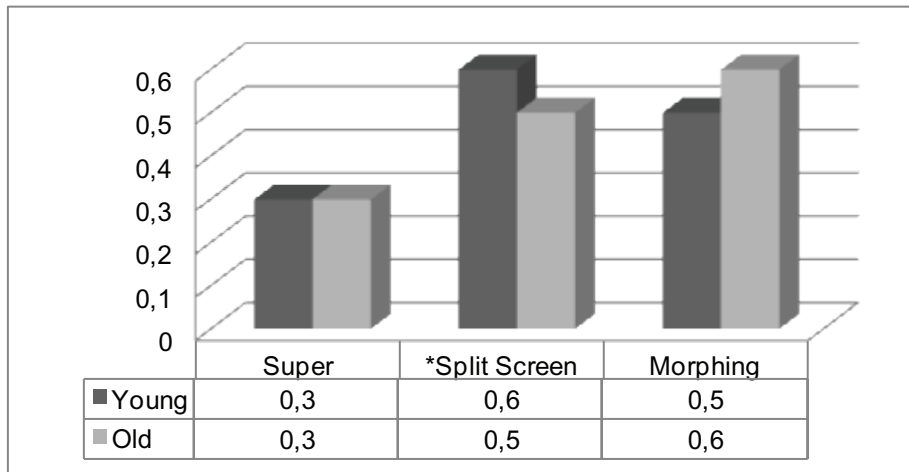
Source: Author.

Figure 10. Heat map of the stimulus containing the morphing in young women



Source: Author.

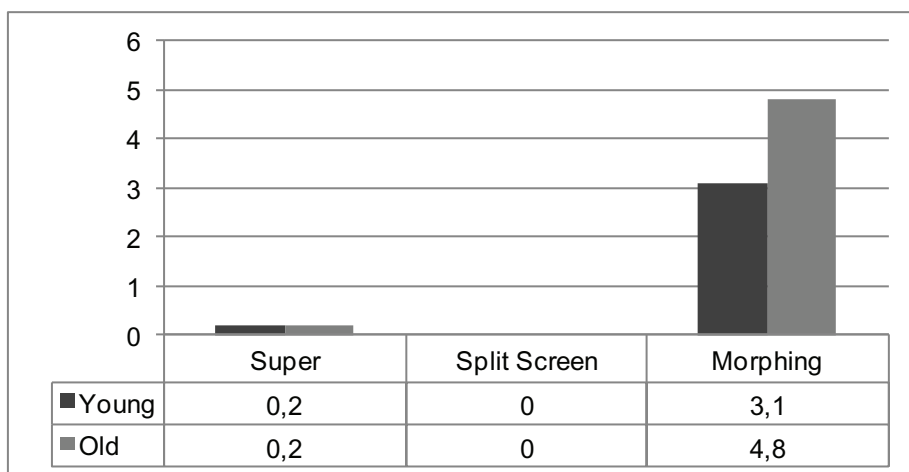
Graph 4. Median fixation length (in seconds)



* Statistically significant difference ($p < .02$)

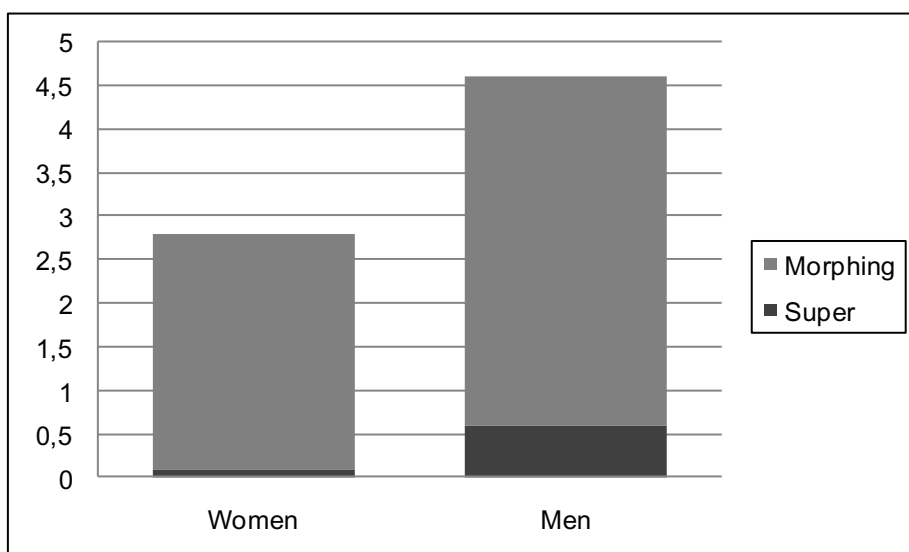
Source: Author.

Graph 5. Median TFF of the NCA format (in seconds)



Source: Author.

Graph 6. TFF men-women (young group)



Source: Author.

We believe that, in general, using these advertising formats is effective and that, when they are processed, the *emotional engagement model* (Heath 2009) is followed, according to which TV advertising is capable of generating a high engagement level although it may be paid a low level of attention.

As a final conclusion, we believe that the appearance of the NCA formats studied produces a visual impact on TV viewers determined by the characteristics of the formats rather than by the age of the subjects. These formats, although they appear as *distractors*, are processed more or less automatically and capture the subject's (unconscious) attention and therefore influence his or her behaviour.

Final note

Work carried out with the support of the Catalan Audiovisual Council (Agreement 103/2009, of 20 May, of the Plenary of the Catalan Audiovisual Council, granting aid to research projects into audiovisual communication. *DOGc* no. 5392 - 3.6.2009). Title: "Processament i eficàcia de les noves formes (formats no convencionals) de TV advertising". (Añaños 2011).

Anna Valli and Anna Astals have collaborated in this work. The experiment (*eye tracker*) was carried out at the Laboratori de Tecnologies per a la Traducció Audiovisual (LAB-TTAV) of the Universitat Autònoma de Barcelona.

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The perception of groups of foreigners on local radio and television¹

MARIA GUTIÉRREZ

Tenured lecturer at the Department of Audiovisual
Communication and Advertising (UAB)

maria.gutierrez@uab.cat

MANEL MATEU

Associate lecturer at the Department of Audiovisual
Communication and Advertising (UAB)

manel.mateu@uab.cat

ELISABET GARCÍA

Tenured lecturer at the Department of Audiovisual
Communication and Advertising (UAB)

elisabet.garcia.altadill@uab.cat

Abstract

The aim of this paper is to analyze the representation of foreign people in local media. It is based on the hypothesis that proximity to social environment contributes to properly explain immigration and cultural diversity. The analysis of the TV and radio chart demonstrates the existence of few TV and radio programs that enhance emotional links between immigrants and local population. From immigrant associations perspectives, it is made manifest that tension and social conflict continue to be the main factors determining their presence in mass media.

Keywords

Local radio, local television, foreigners, immigrants, programming strategies, intercultural.

Article received on 30/06/2011 and accepted on 13/12/2011

Resum

L'objectiu de l'article és analitzar la representació de la població estrangera als mitjans de comunicació audiovisual d'àmbit local, partint de la hipòtesi que la proximitat a l'entorn social contribueix a abordar el fet migratori i la diversitat cultural en clau de cohesió social i de convivència. L'anàlisi de l'oferta dels diferents mitjans, però, evidencia el baix índex de propostes programàtiques i revela l'absència de referents mediàtics que estimulin la creació de vincles emocionals entre els ciutadans nous i la societat d'acollida. Des de la perspectiva de les associacions d'immigrants, es posa de manifest que la tensió i el conflicte social són els factors que en determinen, en bona part, la presència als mitjans.

Paraules clau

Ràdio local, televisió local, estrangers, immigrants, estratègies programàtiques, interculturalitat.

1. Introduction

The international migratory flow to Catalonia has risen significantly over the last decade, with clear effects on the social structure of towns and cities. The different origins of these new citizens have altered the social fabric. Catalan society now has a new profile that is culturally and linguistically diverse. According to the report by the Statistical Institute of Catalonia (Idescat),² at 31 December 2010, 15% of the population residing in Catalonia is foreign and has quite a heterogeneous composition due to its geographical provenance.³ From a media point of view, immigration entails the incorporation of new consumers with diverse socio-demographic and socio-cultural profiles. This variation in the audience's composition has been difficult to handle by the main radio operators (Gutiérrez 2005), and also television operators (Gómez, Capdevila and Pastor 2006), which have ultimately limited the appearance of immigrant citi-

zens in their news programmes. The presence of newly arrived citizens therefore depends on the importance of the event or the presentation of personal experiences with features of anecdotes, narrations, all dressed up in a veneer of sensationalism.

One aspect of local media is the concept of proximity in their production of content and they thereby acquire a social responsibility for the region, achieving the category of public service irrespective of their ownership structure (Chaparro 1998; Sabes 2002). According to Martín Barbero (2010, 8), "[...] what is local in a global society means a project of recognition and socio-cultural creativity based on an everyday commitment exercised by citizens [...]", in which everyone must participate.

According to Ortiz Guitart (2006), a sense of belonging reinforces the emotional ties that connect an individual to a community and a region and through which foreigners carry out processes to become part of the new social environment that permit them to live together with the new cultural codes with-

out tension. In this respect, the media in general “[...] play a key role in how minorities relate to communities at a local, national and transnational level, that’s why it’s important to reflect on how they contribute to or influence the construction of this sense of community and whether it affects social inclusion or exclusion” (Mena 2008, 135). Based on this premise, the modification of the social structure caused by the significant migratory flows that have affected Catalonia should have led to new proposals to facilitate the incorporation of new citizens. The data, however, do not reflect this circumstance, as in the mass media “[...] foreigners’ consumption habits have not led to any significant changes in the media system or to the emergence of new products associated with such consumption” (Soriano 2010, 90). That’s why focusing our attention on local media can help to evaluate their influence on the integration process, social cohesion and community spirit between local citizens and foreigners,⁴ settled down in a region defined as an administrative district.

2. Local audiovisual communication and immigration: object of study and methodology

Our research had two objectives:

- a. Detect the degree of the medium’s involvement in constructing values regarding integration, social cohesion and mutual knowledge based on an analysis of the programmes offered.
- b. Discover the incidence and opinion of local content among immigrant groups, represented by their local associations.

In the first of these objectives, our aim was to determine the influence exercised by the new social fabric, a consequence of migratory movements, on the local media’s programming strategies. In the second objective, we wanted to discover the opinion of these groups regarding their presence on and treatment by the local media. Through their opinions, our aim is to discover whether audiovisual content has been generated that stimulates processes of identification and recognition among foreign citizens and that helps them to become part of the host society.

Quantitative tools were used for the methodological design (fundamental to construct the sample both of municipalities and associations), as well as qualitative instruments such as in-depth interviews, which allow us to discover the perception and experiences of the subjects in question. This qualitative instrument (within the framework of ethnographic storytelling) helps to project trends that can be extrapolated to other local situations related to society and the media.

The field work was carried out on a sample of five Catalan towns: one in the region of Barcelona, one in the region of Girona, one in that of Lleida, another in that of Tarragona and one in the region of Terres de l’Ebre, defined using the following parameters:

- a. High index of foreign population related to the total inhabitants in the municipality. The sources of information were principally the data from Idescat and reports by the Immigration Department of the Catalan government and town councils.
- b. The population’s media significance regarding immigration issues related to situations of conflict and tension but also with good community spirit. It must be noted, however, that this last reason has had little influence on building the sample, as situations of social cohesion and multicultural situations are relatively few in the media.
- c. The presence of local or county-wide media, both publicly and privately owned, but not including programmes by media classified as ethnic, aimed specifically at groups of immigrants from a certain geographical area.⁵

The media were approached from two different angles, combining quantitative and qualitative methodological tools. On the one hand, we analysed programming grids, distinguishing between in-house and external production and also defining the content based on the programme genre. On the other hand, we believed it was necessary to complement this information with interviews, held with those in charge of programming at the broadcasters, as well as some local distribution platforms.

Table 1 shows the towns in the sample and the different percentages of the foreign population, with an indication of the groups most widely present. It can be seen that, in all cases, the groups of new arrivals are greater than 22%, reaching almost 45% in the case of Salt. Morocco appears as the nationality with most presence in three out of the five towns.

It’s easy to deduce the high degree of heterogeneity of the foreign population in each municipality by observing the different percentages between the three most widely present groups and the total percentage that appears in the column for the foreign population.⁶ This circumstance influenced *a priori* the determination of the criteria to select the groups to be interviewed. The first option was to select two of the first three, i.e. the ones appearing in table 1, but the association structures in the towns forced us to adapt to their idiosyncrasies. On the one hand, as shown in table 2, we observed that there is no direct relationship between the weight of a certain group and the number of associations represented (see also table 1). So, although the largest group of new arrivals in Balaguer is from Eastern Europe, neither of the two associations registered corresponds to citizens from this place of origin. The same thing happens in Salt, where there are forty organisations for Sub-Saharan Africa countries but only one association for Latin America, although the Honduras group is the third largest in the town. Finally, in Salt, Vic and Tortosa, Moroccans are the largest group but this is only evident in Tortosa, with a higher number of associations.

Another factor affecting the final list of associations that have taken part are the difficulties in contacting people to hold the interview. However, although we had to renounce our initial criteria, we have tried to ensure the presence of two associations

Table 1. Towns that make up the sample and percentages of the three foreign groups with the greatest presence

Town	Total population	Native population		Foreign population		
		Total	%	Total	%	% groups with the greatest presence
Balaguer	16.766	12.938	77,17	3.828	22,83	7,90% Romania 6,41% Morocco 1,96% Senegal
Salou	27.016	16.160	59,82	10.856	40,18	5,89% Senegal 3,14% Romania 2,60% United Kingdom
Salt	31.897	17.738	55,61	14.159	44,39	15,95% Morocco 6,14% Gambia 4,18% Honduras
Tortosa	36.428	28.019	76,92	8.409	23,08	7,50% Morocco 3,46% Romania 2,85% Pakistan
Vic	40.228	30.036	74,7	10.060	25,3	9,5% Morocco 2,62% Ghana 2,18% Ecuador

A. Balaguer and Salou: <<http://www.idescat.cat/poblacioestrangera/?lang=en>> [Consulted: January-March 2011]

B. Tortosa: <<http://217.126.56.220:8081/WebAJT/EstadistiquesHabitantsServlet>> [Consulted: March 2011]; Vic: Informe Estadístic, Pla de Ciutadania i Immigració d'Osona and Anuari socioeconòmic de Vic, 2009. <<http://217.126.56.220:8081/WebAJT/EstadistiquesHabitantsServlet>> [Consulted: March 2011]

Source: Authors, based on data from Idescat^A and town councils^B

Table 2. Immigrant associations present in the towns under study

Origin	Balaguer	Tortosa	Salou	Salt	Vic
Eastern Europe		1	2		
Latin America		2	4	1	4
China		2			
Southern Asia (India, Pakistan)		1		1	1
Morocco		4		6	1
Sub-Saharan Africa	1	2	4	40	12
No geographical reference	1*			3	1*

* These are Muslim religious associations

Source: Authors, based on the data provided by town and county councils.

per town⁷ that represent different groups of foreigners and that also have different objectives, activities and histories. In fact, it was through the in-depth interviews with their directors that we obtained the basic information to construct the perceptions of these social actors.

3. Representing foreign groups, a programming strategy

Programming grids are the connection point between radio and television and audiences. Both the content and organisation reflect a way of interpreting the environment by creating or consolidating certain imaginaries and therefore redirecting public opinion. In this respect, the media representation of foreign citizens in local media is fundamental, as it influences how natives perceive these groups.

Our working hypothesis was based on the idea that media which are fundamentally local would take migration and cultural diversity more into account, at least in the area of news, thereby differentiating themselves from the national and state media. It's important to point out that the conditions for implementing digital terrestrial television (DTT) and the complex broadcasting map made it advisable to include private media that also offer local programming in the analysis, in addition to the public media. Tables 3 and 4 present the radio and television broadcasters of the five towns in the sample that have been analysed in the research.⁸

Initially, we also intended to study internet portals with a rationale of local communication but this communication option was discarded after studying the terrain. It was noted that there were practically no such sites and the few portals that do exist are due to the internet presence of traditional media (press, radio and television).

3.1. Local radio stations

Except for Salou, all the municipalities have a local radio station, although the special case of Vic should be noted, which has two frequencies and, moreover, privately owned.

With regard to the content offered (see table 5), it can be seen that on Ràdio Vic and El 9 FM,⁹ continuous music (i.e. the "contemporary hit radio (CHR)" or "pop radio" format) occupies more than three quarters of the grid, while the percentage of in-house production (centred on news programmes and the audio broadcasting of some television programmes) is below 20%. The level of in-house production is higher on the rest of the broadcasters, all publicly owned, although the music content also achieves significant rates, represented generally by the adult contemporary format. The exception is Ràdio Salt which, given its interest in providing its production with an intercultural veneer, has chosen an intercultural CHR format, insofar as it's made up of music from the countries of origin of the new arrivals. However, due to rejection from a sector of the native population, the management of Ràdio Salt is thinking of altering this kind of format.

Table 3. List of local radio stations broadcasting in the sample towns

Town	Radio	Owned
Balaguer	Ràdio Balaguer	Public
Salt	Ràdio Salt	Public
Salou	-	-
Tortosa	Ràdio Tortosa	Public
Vic	El 9 FM	Private
	Ràdio Vic	Private

Source: Authors.

Table 4. List of local and county television stations broadcasting in the sample towns

Town	Television	Owned
Balaguer	Lleida Televisió	Private
Salt	Televisió de Girona Canal Català Girona-Pla	Private Private
Salou	TAC 12 Canal Català Tarragona 4TV Mediterrani	Public Private Private
Tortosa	L'Ebre TV Canal TE Canal 21 Ebre	Private Private Private
Vic	El 9TV Canal Català Osona Canal Taronja Osona	Private Private Private

Source: Authors.

An analysis of the programmes offered has found that public broadcasters have more varied programming where the existence of immigration can be seen and immigrant citizens are present, either because they themselves are responsible for the production or because the product is aimed at them specifically. However, the impact of these productions on programming as a whole is not very significant, if we take into account the high indices of immigrant population in the sample municipalities.

Regarding the media, it should be noted that an across-the-board strategy to represent immigrant groups on the radio isn't very integrated within the ideology of any of the broadcasters. With regard to private broadcasters, neither El 9 FM nor Ràdio Vic produces any programme that provides visibility for the town's foreign community.

Table 5. Percentage of content in relation to the type of production

	In-house	Continuous music	Syndicated content	COMRàdio connection
Ràdio Balaguer	18,0%	41,0%	--	41,0%
Ràdio Tortosa	31,3%	64,0%	4,7%	--
Ràdio Salt	39,0%	59,0%	--	2,0%
Ràdio Vic	17,0%	83,0%	--	--
EI 9 FM	11,1%	88,9%	--	--

Source: Authors

In general terms, we have observed that the programming strategies that enable the presence and treatment of the theme of immigration are heterogeneous and governed by different parameters:

- a. The inclusion within the grid of programmes made by immigrant citizen associations and entities. This formula is only present on Ràdio Salt, precisely the municipality with the highest percentage of foreign population (44.39%). This season there are three programmes that deal with the intercultural aspect. The first, *Almohajir*, is made by a Moroccan association dedicated to teaching Arabic to children, which uses the radio as a pedagogical tool, encouraging students to form part of the programme. The second, *Salt de sons*, led by a group of girls of Moroccan origin that belong to the Magrebins sense Fronteres association, plays music and deals with contemporary issues regarding young people. And, finally, the third is *El món a Salt*, made by the Eina association and given an award by GREC (the organisation specialising in the prevention, resolution and alternative management of conflict), whose main objective is to improve the level of Catalan among young immigrants as a strategy for integration.¹⁰ All three programmes have a significant integrating component, with radio becoming an instrument employed by immigrants to get closer to the population in Salt. Catalan is the vehicle language in all of these, although other languages are also used in parallel, such as Arabic and Tamazight.
- b. Cultural diversity by promoting activities organised by associations and entities. This is a strategy present on all broadcasters although, in general, it is up to the groups and, in some cases, councils to ensure that broadcasters receive the information.
- c. Focus on outstanding people in society due to their professional or social activity. In this respect, Ràdio Tortosa is worthy of note, with magazine programmes such as *L'hora del vermut*, in-depth interviews which include the aspect of interculturism, or *Bufandes grogues*, on culture and music.

Other programmes used by local radio to get closer to their

foreign audience are *Creu i lluna* and *Freqüència social*, on Ràdio Balaguer, focused on raising awareness of municipal institutions and services and to which immigrants are sporadically invited. In any case, the analysis reveals that the *solidarity* category, a term used by the broadcaster to define both programmes, only accounts for 2% of the in-house production.

Language often becomes an argument on radio. In fact, some of the proposals by Ràdio Salt are along these lines and, in this respect, we should also note the presence on Ràdio Tortosa of *Onescat*, a beginners' Catalan course on the radio aimed at people who have just arrived in Catalonia, designed by the Consortium for Linguistic Normalisation and recorded and produced by COMRàdio.

In terms of news programmes, foreigners are mostly seen in conflictive events and, to a small extent, in festivals related to cultural and traditional activities of their countries of origin, or even exotic events, such as Ramadan or the Chinese New Year.

In general, the syndication of programmes through the platforms Sindicada, of the Local Communication Consortium, and the Federation of Local Radio Stations of Catalonia (FRLC), allows public and private broadcasters to complement their programming. But this is a low impact strategy on the broadcasters analysed, as shown in table 5. According to the people in charge of their content,¹¹ in terms of *immigration* and *social cohesion*, broadcasters tend to make their own products, believing that their idiosyncrasies cannot be exported to other municipal situations.¹² Consequently, it's logical that a Catalan course, *Onescat*, is the only programme detected within the framework of these platforms.

3.2. Local television stations

The model to implement DTT has divided the territory into zones that go beyond that of municipality and county. This has affected programming, as the definition of "local" is related to the municipalities covered but also to how far these channels can be classified as "public service" (Guimerà 2010).

The television stations studied are predominantly privately owned, as there is only one public station. However, in their

ideology, all include the media presence of the associations from the respective towns and counties as a fundamental principle that furthers social and regional cohesion. On the other hand, an analysis of the programmes offered shows a lack of strategies to strengthen the presence of immigrant associations and entities as a tool that reflects the new social reality at a municipal and county level. From the perspective of the television channels, reasons of an economic nature have been given but also the belief that it is not necessary to treat immigration and social cohesion in any special way since the everyday life of the town is very calm. This lack of coverage changes depending on the news stories at any particular time.

On the whole, in-house weekly productions on the six television stations analysed exceed 50% of all the programmes offered, with the exception of TV Girona, which does not reach 44% (see graph 1). It should be noted that all apply the strategy of rebroadcasting programmes and that, in some cases, this happens more than three times a day. In all, three of the broadcasters analysed do not broadcast 24 hours' a day.

With regard to the in-house production of programmes related to the theme of "immigration and social cohesion", there is no explicit intercultural focus in the ideology of these television stations.

In general, all the channels are governed by the principles of freedom, respect and non-discrimination, although some go further and apply the ethical code of the College of Journalists.¹³ This season only Lleida Televisió has a specific programme, every fortnight, that tackles immigration and social cohesion, entitled *Mirades*. On the other hand, there are programmes in which social cohesion is tackled across the board with all kinds of entities, activities and citizens, such as *IdEntitats*, on TAC 12; *Cafeïna*, on Lleida TV, and *La Terrassa*, on El 9TV.

The presence of immigrant citizens and their cultures on the news is diverse and variable and depends on the area of coverage of each television station, the number of foreign citizens, their capacity to form associations, their capacity to generate activities and, evidently, the extent of controversial and/or criminal acts in which they might be involved. In this last circumstance, the participation of immigrant citizens is subject to the same conditioning factors as for native citizens, as the most important thing is how newsworthy the event is.

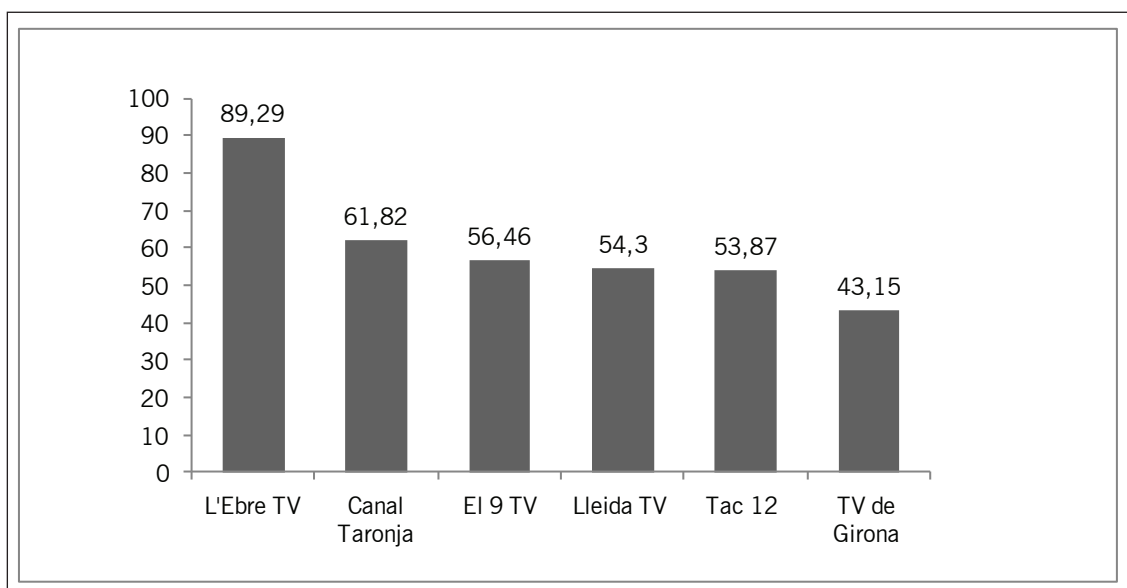
With regard to external production that complements programming, these TV channels are mostly supplied by the Local Audiovisual Network (XAL), and also (according to the broadcasters) by platforms such as Comunicàlia, Televisions Digitals Independents de Proximitat (TDI), TVlocal.cat and by local producers.¹⁴ In this area, of note is *Civilis*, a XAL container programme which includes the documentary miniseries *El món a les mans*, winning the Audiovisual Diversity Award in the television category, given by the Commission for Audiovisual Diversity (MDA) of the Catalan Audiovisual Council (CAC).

Of all the platforms, XAL is the one that makes foreigners most visible as typical citizens. But, on occasion, their proposals have been rejected by society, forcing them to suspend broadcasts due to various complaints from sectors of the native population.¹⁵

An analysis of the programming of local TV stations that form part of the sample concludes that immigrant citizens aren't taken into account as potential viewers either. The premise used is often that, because they don't know Catalan, they are less likely to take part in programmes and, consequently, to become a potential audience.

The fact of migration from an intercultural perspective is not

Graph 1. In-house production levels for television in terms of broadcasting hours, including retransmission



Source: Authors.

tackled, therefore, as part of an overall intention for these programmes to continue or as any kind of plan. The presence of these programmes is one-off and fluctuates and, on occasion, also depends on the initiatives of town councils, provincial governments and immigrant associations themselves.

Before ending the sections dedicated to the media, we would also like to point out the lack of immigrant professionals on the staff of the radio and television channels analysed. Their inclusion would reflect the multicultural reality and would strengthen social recognition of immigrants among the native population.

4. Social actors and local broadcasting media

But what do immigrant groups think of the programmes offered? Do they feel represented? How do they relate to local operators? In an attempt to answer these questions, in-depth interviews were held with various heads of entities in the towns under study. Four Latin American associations were contacted, two from Morocco, two from Sub-Saharan Africa and one Romanian.¹⁶

With regard to television, interviewees reveal a generalised consumption of national and state channels and a more limited consumption of local broadcasters, as only four of the nine associations interviewed state that they regularly follow local programmes and/or news. In the African groups (both in the case of Morocco and Sub-Saharan Africa), their consumption habits also included television stations from their countries of origin, received via satellite.

In general, radio arouses little interest and its function is limited to “accompanying” other activities, such as driving or working. In the local sphere, in some cases people weren’t even aware that these stations exist.

According to some interviewees, these habits only alter when there are conflicts in the community (as the local media are expected to provide more local and detailed information), and also when the programme is made by the new arrivals themselves.¹⁷ In view of these results, it seems reasonable to deduce that this lack of interest of new arrivals in local media is due merely to the fact that they don’t feel represented. This idea connects with the criticism of the interviewees regarding the media as a whole, as they feel that, whenever they cover immigration and immigrants, they don’t always help foster community spirit and integration. There are various reasons given to justify this criticism:

- Classist attitude of the media, which emphasise the immigrant origin of some people and ignore it with others, such as football stars.
- Emphasis on the negative or problematic aspects of migration and/or of people who have migrated.
- Preserving clichés and stereotypes that result in the background and personal values of new arrivals being ignored.
- Little professionalism on the part of some media, confusing countries and cultures.

- Reinforcing stereotypes and the exotic elements of some territories, especially African, ending up projecting a distorted image of the reality of these countries and their inhabitants.

4.1 Representing diversity

The interviewees agree that the reality on the street (diversity) is not always represented on the media. To give more media visibility to the group and its association itself, the entities attempt to establish stable relations with broadcasters and newspapers. In some cases, they are satisfied with the results but in others they lament the media’s lack of interest, more inclined to show conflicts than the activities carried out within the day-to-day life of the community.

In order to change this situation, various associations are thinking of setting up a good promotional team working under professional criteria. At the same time, however, it has been observed that some entities that had been in operation for a short time were unaware of the circuits that could be used to publicise their activities. In this respect, the role of councils is key to putting associations in touch with the local media.

Another option to access the media is by making their own programmes. As we have already explained, and with the exception of Ràdio Salt, there are no programmes made by the associations, although this option is desired by half the groups interviewed.¹⁸ Some entities have even started to think of projects and establish contacts. For example, the Moroccan and Nigerian associations are hoping to make a bilingual programme that combines Catalan with Arabic/Tamazight with English, respectively. The Moroccan associations value the use of two languages very highly because there is a significant part of the group that does not speak or understand Catalan and this seems to be a good way to integrate them without excluding the native audience.

When the interviewees are asked to reflect on radio and television programming, some representatives from the associations state that they would like a weekly news programme for the local area made in various languages. They would also like foreigners to be more present in programming as a whole (for example, in fiction) and value positively the possibility to collaborate permanently in debate programmes, round tables, magazine shows, etc. But the interviewees believe that broadcasters are only prepared to invite them for the odd, sporadic participation in order to be politically correct but without taking on any more commitment.

In addition to media access, another element considered vital to boost the presence of cultural diversity is the existence of references that can encourage identification. In the words of Mohamed Chriyaa, president of Magrebins Sense Fronteres (Salt), “what these groups need are references [...], [they must see] that there are figures in the media [...] and local media can provide that positive thing, what associations are doing, what groups are doing individually”.

5. Conclusions

- According to what the data suggest, local media do not always behave as a space for information and communication for all the human and cultural diversity that makes up a community. The broadcasters studied do not include the new social reality of immigrants or cultural diversity in their ideologies. Neither is there a principle of positive discrimination with regard to the presence and treatment of the migratory situation.
- This lack of strategies means that there are few radio or television productions specialising in the processes of migration and social cohesion. In fact, on television, this content is provided by the odd distribution platform or results from the initiative of a journalist or producer sensitive to the issue. In the case of radio, some programmes are made by immigrant associations and entities interested in this situation. Investigating this aspect, it is significant that this lack of projects to strengthen interculturalism is often justified by the absence of conflict in the municipality, confusing the lack of conflict with the existence of social cohesion.
- The media acknowledge a tendency to limit news coverage for immigrant citizens to events classed as conflictive. Without doubt, this increases tension in the social environment and reinforces a negative imaginary among the native population which is not sufficiently countered by seeing events of a festive nature organised by associations. Those in charge of the media also state that, when they look for sources of information, they do not usually go to immigrants or their associations and that this production routine is not altered even when the events affect them directly as citizens of the municipality.
- The media studied do not have immigrant professionals on their staff as yet, a fact that might result in the few productions actually made by foreigners not being able to compete with native productions, as well as radio and TV programmes excluding other points of view.
- From the interviews with those in charge of associations we can observe that, although they live in the same region, the new arrivals do not recognise themselves in the local broadcasting media and are therefore not interested in the programmes offered and stop being a potential audience. They also indicate that this lack of references in radio and television content weakens the feeling of belonging and identification with the host society.
- The entities would like the local media to provide an across-the-board view in all spheres as a sign of normal citizen life. They argue that representation will provide them with references that will help to create emotional ties with the region and will also improve the native population's perception of the immigrants, something that will gradually further social cohesion and community spirit.
- In general, not knowing the language does not appear to be a crucial obstacle to these groups consuming radio and tel-

evision programmes. When it comes to them making their own programmes, however, some associations propose that programmes should be produced in two languages, Catalan and their own. They believe that this bilingualism is an integrating formula that does not exclude the native population.

The question is, therefore, to combine the interests of the media and the expectations of the native and non-native audience, a complex task when one part of the population, the foreign part, does not feel represented nor does it recognise itself in the content offered by local radio and television. However, these media are still responsible for furthering social cohesion to improve the community spirit and this involves attending to the whole of the population that, as a consequence of international migratory flows, has become multicultural. Including the global context of the migratory situation helps to understand this reality without distorting it and also serves to combat the stigma and stereotypes that still exist regarding immigrants.

Notes

1. This article is the result of research financed by the Catalan Audiovisual Council (CAC) *Els mitjans de comunicació local en el procés d'integració de la població estrangera resident a Catalunya. Estratègies i polítiques programàtiques*, as part of the VII Call for grants for research projects into audiovisual communication.
2. <<http://www.idescat.cat/poblacioestrangera/?lang=en>>
3. According to this report, groups from Latin American account for 28% of the total foreign population, while the European Union and Africa represent 26% each and 10% corresponds to Asia and Oceania. Those of less impact come from non-EU countries and North and Central America, with 5% respectively.
4. Different terms are used indistinctly throughout the text, such as *new arrivals*, *immigrants* and *foreigners* to refer to these groups.
5. Ethnic media have started a debate regarding their role as instruments for integration, in part caused by the commercial synergies they generate (Retis 2006). Although they fulfil an identity function and help to preserve emotional ties with the country of origin (Lario Bastida 2006; Mena 2008), they seem to delay the consumption of the media from the host society. According to Huertas and Brignol (2008), as from ten years after having migrated, interest wanes in news from the country of birth and media consumption is mostly concentrated on programmes from where the person resides.
6. This figure is quite significant in the case of Salou, which has a difference of 28.55 percentage points, and Salt, with 18.12 points, implying a wide range of groups. However, although the percentage difference in Vic (11 points), Tortosa (9.27) and Balaguer (6.56) is lower, the situation is similar.

7. The Muslim Association of la Noguera (Balaguer) decided not to take part, although an interview had been arranged.
8. Interviews were held with the people in charge of the following broadcasters: Ràdio Salt, Ràdio Balaguer, Ràdio Tortosa, El 9 FM, L'Ebre TV, TAC 12, TV de Girona, Lleida TV, El 9 TV and Canal Taronja Osona. The interviews were held between December 2010 and April 2011.
9. 9 FM started broadcasting in 2010, with the aim of becoming a county-wide broadcaster.
10. This programme will disappear from the grid due to the withdrawal subsidies that had made its production possible.
11. Both content managers were interviewed between February and March 2011.
12. For more information on the production of radio programmes by immigrant groups, see the article by Núria de José "Les emissores municipals, pioneres en integració", in *Xarxa COM*, no. 14, 2011, p. 23-24.
13. Of particular note among these articles from the Ethical Code is article 12:
"Act with particular responsibility and rigour in the case of news or opinions with content that might arouse discrimination due to reasons of sex, race, belief, social and cultural origin and illness, as well as incite the use of violence, avoiding expressions or accounts that are vexing or harmful for the personal condition of individuals and their physical and moral integrity."
14. The contribution of the different platforms to the programming of each broadcaster varies in each case. There are broadcasters that only work with XAL programmes (TAC 12 and El 9 TV) and others that use programmes from four different sources (Lleida TV). The content managers of XAL and Comunicàlia were interviewed between March and April 2011.
15. This is the case of TV de Girona.
16. The associations that took part in the research are: Associació Africana (Balaguer), Associació Aliança de Romanesos de Tot Arreu (Tortosa), Associació AMIC Amazigh (Vic), Associació d'Equatorians de Catalunya Comarca d'Osona (AECCO) (Vic), Asociación Cultural Latinoamericana de Tortosa (Tortosa), Casal Argentino Salou de 20 de Junio (Salou), Casal Hispano Argentino de Catalunya (Salou), Dones Nigerianes Progressistes de Girona (Salt), Magrebins sense Fronteres (Salt). The interviews were held in March and April 2011.
17. This would be the case of the programmes made on Ràdio Salt by the various associations.
18. Specifically, these are the Associació AMIC-Amazigh (Vic), Associació Aliança de Romanesos de Tot Arreu (Tortosa), Dones Nigerianes Progressistes de Girona (Salt) and Asociación Cultural Latinoamericana de Tortosa (Tortosa).

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<www.lebretv.xiptv.cat/>
<www.cpnl.cat/onescat/>
<www.segre.com/litv_graella.html>
<www.xtvl.tv>
<www.antenacaro.cat/accessible/>
<www.comunicalia.cat/>
<www.radiolocal.cat/>

Applying automatic speech generation techniques to audiovisual production

FRANCESC ALÍAS

Member of the Grup de Recerca en Tecnologies Media at La Salle - Universitat Ramon Llull

falias@salle.url.edu

JOAN CLAUDI SOCORÓ

Member of the Grup de Recerca en Tecnologies Media at La Salle - Universitat Ramon Llull

jclaudi@salle.url.edu

IGNASI IRIONDO

Member of the Grup de Recerca en Tecnologies Media at La Salle - Universitat Ramon Llull

iriondo@salle.url.edu

Article received on 01/06/2011 and accepted on 13/12/2011

Abstract

This article presents a summary of the research work of the same title, developed thanks to the grant awarded by the CAC in the VII call of research projects on audiovisual communication. After studying the degree of implementation of speech synthesis systems in Catalonia, we analyze the feasibility of its use for the creation of audiovisual productions. This article presents the findings of the field study and the experiments developed after adapting the speech synthesis system of La Salle (Universitat Ramon Llull) to the Catalan language.

Keywords

Speech synthesis, audiovisual productions, audio description, subjective assessment of quality.

Resum

En aquest article es presenta un resum del treball de recerca que porta el mateix títol, realitzat gràcies a l'ajut concedit pel CAC en la VII convocatòria d'Ajuts a projectes de recerca sobre comunicació audiovisual. Després d'estudiar el grau d'implantació dels sistemes de síntesi de veu a Catalunya, se n'analitza la viabilitat de l'ús en l'àmbit de la creació de produccions audiovisuals. En aquest article es presenten les conclusions de l'estudi de camp realitzat i dels experiments desenvolupats a partir del sistema de síntesi de la parla de La Salle (Universitat Ramon Llull) adaptat al català.

Paraules clau

Síntesi de veu, produccions audiovisuals, audiodescripció, valoració subjectiva de qualitat.

1. Introduction

Speech synthesis is the technique whereby speech is automatically generated with similar characteristics to those of a human voice based on a text input. Speech synthesis systems can be confused with systems that employ recorded voices to reproduce voice messages but it should be clear that, in general, speech synthesis refers to techniques to generate any oral message.

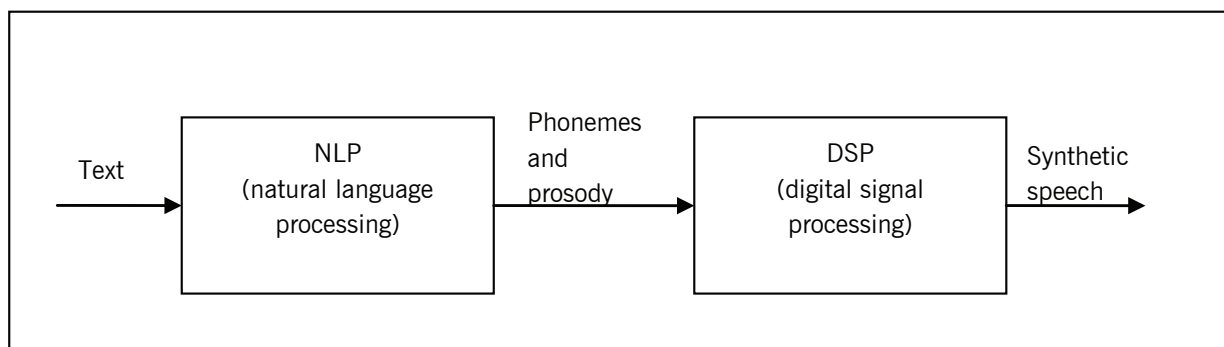
The text input can come from an email, a website or can be written directly on a keyboard. Some of the typical applications of this kind of system are aids for people with a certain disability (for example, visual), a support for language learning, telephone applications, multimedia applications and person-machine interfaces in general.

Far from wishing to imitate the real process used by humans to generate speech, there is a functional model that, employing the resources available today, enables the construction of a system to turn any text input into its corresponding synthetic voice. This functional model, prevalent and widely accepted by

the speech technology community, is the one described in the block diagram in figure 1.

As can be seen in figure 1, first we have the natural language processing (NLP) block, whose task is to assign phonetic transcriptions to the words of the text to be "read" (i.e. the sounds that must be produced in the output utterance) and also the associated prosody (how each of these sounds should sound, specifically the characteristics of their intonation and rhythm). Secondly, there is the digital signal processing block (DSP), whose task is to generate the output synthetic speech signal based on the requirements provided by the previous module.

The rest of this article is structured as follows: section 2 presents a review of institutions around the world that stand out for their contribution to the world of speech synthesis. Section 3 presents the most representative findings of a field study on speech synthesis in the audiovisual area in Catalonia, as well as on groups of people with impaired vision. By means of a number of personal interviews, the most relevant opinions have been gathered regarding the degree of maturity reached by this technology, the most significant limitations to its use

Figure 1. Functional model of a text to speech conversion system (TTS)

Source: authors.

and the future challenges in terms of the greater penetration of text to speech conversion in the sectors mentioned. Section 4 describes the process used to adapt the La Salle speech synthesiser (URL) to Catalan, following one of the objectives established in the research project financed. Using this synthesiser, tests have been carried out that are described in section 5, which have subjectively validated the feasibility of using speech synthesis as a tool to generate audiovisual material (specifically examples of advertisements and news items). Finally, section 6 includes the main conclusions of this work and the lines of research that might help to advance towards a higher degree of penetration of speech synthesis in the broadcasting media.

2. Penetration of speech synthesis in the audiovisual world in Catalonia

In order to study the actual degree of penetration of speech synthesis technologies in the audiovisual world in Catalonia, extensive fieldwork has been carried out to gather the opinions of key actors regarding the current penetration and possible future introduction of speech synthesis systems in broadcasting media. Moreover, during this process it was noted that there is a part of the population that are heavy users of speech synthesis systems, namely those with impaired vision. For this reason, this group of users has also been included in the study to discover their opinion regarding the use of speech synthesis technologies within the context of audiovisual productions (Torrens 2010).

Below is a representative review of the most relevant companies, research centres and products related to synthetic voice generation in Catalan. Within this context, companies are included both within the Catalan and international sphere, as well as products available online.

2.1 Universities and research centres

1) TALP (Tecnologies i Aplicacions del Llenguatge i la Parla) from the Universitat Politècnica de Catalunya

Regarding Catalan speech synthesis we must point out, on the one hand, that the TALP research group has its own text to speech conversion system called OGMIOS (<http://www.talp.cat/ttsdemo/index.php>), and, on the other, that it has worked on incorporating Catalan within the Festival platform, developed for the Linux operating system (<http://www.cstr.ed.ac.uk/projects/festival/>), and the result is FestCat, which was included in the Catalan government's Linkat distribution. All these applications can be downloaded free of charge from the FestCat website and are published under LGPL licence terms. For more information, see the website <<http://gps-tsc.upc.es/veu/festcat/>>.

Some of this work was carried out as part of the Tecnoparla project (speech technologies in Catalan), focusing on the feasibility of voice translation applied to the translation of audiovisual news. The project studied the different key technologies involved in a voice translation system (recognition, translation and speech synthesis), focusing on the incorporation of Catalan, and dealt with the progress made in the three technologies in question and their integration. With regard to speech synthesis in particular, the Festival platform's open programming system was used (Linux) adapted to Catalan (FestCat). You can find more information on the following website: <<http://www.talp.cat/tecnoparla/>>

2) GTM (Grup de Recerca en Tecnologies Mèdia), La Salle - Universitat Ramon Llull

This group has extensive experience in the world of synthetic speech generation. Since it was first set up at the end of the 1980s, it has focused on research into Catalan speech synthesis, via work by Martí (1985) and Camps (1992), later continued by Gaus and Iriondo (2000) and Iriondo *et al* (2004), the latter work being focused on expressive (emotive) synthesis in Catalan.

For more information, visit the website: <http://www.salle.url.edu/portal/departaments/home-depts-DTM-projectes-PM?cf_seccio=PM&pag=1>

3) Barcelona Media - Centre d'Innovació de la Fundació Barcelona Media

Barcelona Media includes a line of voice and language research

that investigates language processing, both written and oral, and develops applications in automatic correction and translation, data analysis and processing, automatic text generation from databases and speech synthesis, to achieve tools for the automatic processing of linguistic content in multilingual environments or where human language is the priority means of interaction.

In the area of speech synthesis, their aim is to create a synthetic voice in Catalan, one in Spanish and one bilingual (Catalan and Spanish), as well as making this more natural, expressive and with better intonation (prosodic) and to facilitate the creation of specialist speakers. You can find more information on the following website:

<<http://www.barcelonamedia.org/linies/7/en>>.

2.2 Companies

1) Verbio

Barcelona-based company dedicated to selling speech technology products.

- In terms of speech synthesis, they offer text to speech conversion in different languages.
<<http://www.verbio.com/webverbio3/html/productes.php?id=1>>
- Demonstrations of voices in Catalan: Meritxell and Oriol.
<http://www.verbio.com/webverbio3/html/demos_ttsonline.php>
- Demonstrations of news:
<http://www.verbio.com/webverbio3/html/demos_news.php>
Link on Vilaweb.cat, but it indicates that there are no news items available.

2) Loquendo

Company dedicated to selling speech technology products. With regard to speech synthesis, they offer text to speech conversion in different languages.

- This is a speech synthesis system based on unit selection.
<<http://www.loquendo.com/es/technology/tts.htm>>
- Demonstrations of voices in Catalan: Montserrat and Jordi.
<http://www.loquendo.com/es/demos/demo_tts.htm>

3) CereProc

The company CereProc, in collaboration with Barcelona Media, has developed a bilingual female speech synthesis system in Catalan and Spanish. They offer a synthetic female voice, bilingual in Catalan and Spanish, with natural intonation, available for many different applications. This project has been supported by the Catalan government.

<<http://www.cereproc.com/products/voices>>

4) Nuance

Nuance Vocalizer (formerly RealSpeak) has a female voice in Catalan (Núria). However, there isn't much information on the company's website.

<<http://www.nuance.es/realspeak/>>
<<http://www.nuance.com/for-business/by-solution/contact-center-customer-care/cccc-solutions>>
<[services/vocalizer/vocalizer-languages/index.htm](http://services.vocalizer.com/vocalizer-languages/index.htm)>

5) Telefónica I+D

Has a multilingual text to speech conversion system (Rodríguez *et al.* 2008). We have not been able to confirm whether this is an independent product offered by the company (see <http://www.tid.es>). However, the company has incorporated this technology in some of its products, such as the short message reader (<http://saladeprensa.telefonica.es/documentos/24moviles.pdf>) or to help disabled people (<http://saladeprensa.telefonica.es/documentos/22comunicador.pdf>).

2.3 Other products

1) eSpeak

eSpeak is a synthesis system based on formats that work on the Linux and Windows platforms and that can be used under a GNU *General Public License* (freeware).

<<http://espeak.sourceforge.net/>>

2) JAWS (*Job Access With Speech*)

Aimed at the blind and visually impaired.

- Reads the content of a screen using a synthetic voice.
<<http://www.freedomscientific.com/products/fs/jaws-product-page.asp>>
- Includes a voice in Catalan because it includes synthesis systems from other companies, such as Nuance (Núria).
<<http://www.freedomscientific.com/downloads/jaws/JAWS10-whats-new.asp>>

3. Penetration of speech synthesis in the audiovisual world in Catalonia

In order to study the actual degree of penetration of speech synthesis technologies in the audiovisual world in Catalonia, extensive fieldwork has been carried out to gather the opinions of key actors regarding the current penetration and possible future introduction of speech synthesis systems in broadcasting media. Moreover, during this process it was noted that there is a part of the population that are heavy users of speech synthesis systems, namely those with impaired vision. For this reason, this group of users has also been included in the study carried out to discover their opinion regarding the use of speech synthesis technologies within the context of audiovisual productions. The details of the fieldwork can be found in Torrens (2010).

Below is an analysis of the findings from the fieldwork based on the different answers obtained from the interviews held with key actors in the sector (radio and television broadcasters, production houses and sound and dubbing studios), by means of interviews held with people working in this sector, both from a technical and non-technical view.

Moreover, a group of users was also interviewed who are potentially very interested in speech synthesis being incorporated in the world of audiovisual communication, such as the visually impaired. The findings of the study will then be presented, contextualised by this sector of society.

3.1 The media

The interviews held with the broadcasting media have been broken down into three large groups: 1) radio, 2) television and TV producers, and 3) sound, dubbing and post-production studios. Most of the leading organisations in the sector were contacted within Catalonia, as the study focused on the application of speech synthesis in Catalan. Out of all these organisations, the following 19 entities attended the interviews via a representative from their technical/broadcasting departments (see Torrens 2010 for more details):

1. Radio: Catalunya Ràdio, 40 Principales Barcelona, COMRàdio, RAC1 and Onda Rambla - Punto Radio.
2. Television and production houses: TV3, 8tv, RAC105tv and Gestmusic.
3. Sound, dubbing and post-production studios: Oido (www.oido.net), INFINIA (www.infinia.es), Onda Estudios (www.ondaestudios.com), Cyo Studios (www.cyostudios.com), Dubbing Films (www.dubbingfilms.com), Tatudec (www.tatudec.com), Dvmusic (www.dv-music.es), Seimar RLM Estudios, Soundub (www.abaira.es) and Sonygraf (www.sonygraf.com).

The following conclusions can be reached from these interviews:

- Both the radio and television broadcasters and the sound studios are aware of the technology of speech synthesis systems.
- Analysing the first of the groups, none of the radio broadcasters contacted uses speech synthesis systems apart from a couple that have only used them to generate a robotic voice or to create a specific effect, and they have not done this using freeware.

There are various opinions regarding the use of speech synthesis technologies in the future: two of the people representing the technical departments of broadcasters believe that they might be useful but only in a complementary way; i.e. to create effects or for automated broadcasters. Another states that the charm and magic provided by a medium such as radio would be lost; the two remaining people think that synthesisers are still far from being used due to the lack of natural expression and intonation in the voice.

- None of the television broadcasters or the production houses contacted uses speech synthesis systems to generate audiovisual products. However, the opinion of the technicians consulted is quite varied. In one case, they state that they are not interested because what people like is a human voice. Others state that they could be used in automatic programmes providing information on the stock market or the weather and also in advertising, documentaries and

promotions, due to the great financial savings the generation of these products would suppose. This last statement has been taken from the interview held with the technical representative of the audio department of the TV production house, Gestmusic. Although some technicians believe it is feasible to use a synthetic voice in various applications, they also think that speech synthesis systems have yet to mature to a sufficient level of naturalness to be able to produce a range of intonations (voices that are high or low pitched, young, serious, etc.).

- Only two of the technical departments from the last group (sound, dubbing and post-production studios) have ever used a voice synthesiser, and this only to create music effects or to manipulate voices. The general opinion regarding the penetration of these communication systems in the future is very similar among all the studios consulted. The vast majority of the people interviewed stress that, until speech synthesis systems are perfected further (in the sense of increasing the naturalness of the synthetic voice generated to be able to convey emotions realistically, as a person does), the synthetic voice can't be used, not in the television or radio industry.

As an overall assessment of the idea of introducing speech synthesis systems in the broadcasting media, it can be said that the opinions of the 19 technicians interviewed, in principle opposing the integration of these systems in the process of creating audiovisual content, might change if the emotions of the voice could be synthesised naturally and less robotic synthetic voices could be achieved, thereby being closer to the natural voice produced by humans.

3.2. Potential users

Regarding the interviews held in the context of technologies for the visually impaired, the interviews were carried out with two different profiles: 1) technicians working in the broadcasting media, contained in the previous section, to know their opinion on the use of synthetic voices for audio description (a technology they are already familiar with), and 2) the segment of the population that suffers some kind of visual impairment, as it is essential to take their opinion into account regarding the viability of introducing artificial voices in these media.

Most of the people working with sound technologies (including technicians from the radio, television and sound, dubbing and post-production studios interviewed) believe that synthetic voices could be applied to audio description if they were more natural and "believable" although, in some cases, they also think that it wouldn't save much time and that natural voices aren't worth replacing. Specifically, some believe that speech synthesis systems would have to improve a lot in terms of quality and it has even been stated that it's quicker to record with a person. However, out of all the interviews, there are two that stand out in particular as clearly different from the rest. Specifically, the following has been stated:

- Before incorporating speech synthesis technologies in audiovisual production, we should ask the visually impaired, who are really the end users, regarding the viability of using synthetic voices for audio description and, if they don't like it, this option should be discarded.
- It's always better if the message's intonation and naturalness are good but cost could be a key factor. In this respect, although a synthetic voice may not be completely natural, it could reduce the cost of creating the audio and therefore be more profitable than hiring a narrator.

3.3. Visually impaired users

By collaborating with ONCE [Spanish association for the blind], we were able to interview 51 visually impaired people from all over Spain. The distribution by region of the people consulted is as follows: 16 people from Madrid, 8 from Andalusia, 5 from the Community of Valencia, 3 from Catalonia, 3 from Galicia, 3 from the Balearic Islands, 3 from Asturias, 2 from the Canary Islands and one representative from each of the remaining regions (Cantabria, Basque Country, Castile & Leon, etc.). The breakdown by profession is as follows: 10 retired, 9 lottery ticket sellers, 7 physiotherapists, 2 students, 2 teachers and a single representative for the remaining professions (programmer, musician, speech therapist, journalist, lawyer, office worker, telephonist, bank clerk, etc.). The interviews have therefore attempted to cover a wide range of profiles of potential users with a visual impairment (see Torrens 2010 for a detailed list).

Two quite interesting ideas can be extracted related to broadcasting media out of the interviews held with either totally or partially visually impaired people:

- Almost everyone who collaborated by completing the questionnaire believe that synthetic voices could be used in the future for audio description on television and in the cinema. They say that it would be very useful for a voice to explain everything they can't see in television programmes, documentaries, films, etc. Anything that helps them to lead a normal life and join in the consumption of audiovisual products is welcome.
- Opinions differ regarding the introduction of speech synthesis systems on the radio. More than half believe that it's unnecessary and prefer a human voice. Out of the rest of the interviewees, some believe that it could be useful, depending on the quality of the synthetic voice and others, although they accept it, don't believe it to be essential.

Finally, we can conclude that, once naturalness and emotion is achieved in synthetic voices, audio description could be a good way to progressively introduce speech synthesis systems in the world of audiovisual productions, as almost all visually impaired use these systems. While this advance is expected in voices, the viability of introducing speech synthesis systems on the radio or television seems complex but there is the option of using them in sectors or applications in which expressiveness is not required or when a robotic voice is the aim.

4. Adapting the La Salle synthesis system to Catalan

In the technical area of the project, one of the key phases has been the development of linguistic and signal processing resources to create voices in Catalan. The linguistic resources, such as the phonetic transcription system, the morphological-syntactic analyser, etc. that form part of the natural language processing (NLP) module of the synthesis system have been developed by the La Salle research group over the last few years of study. However, the speech synthesis databases in Catalan are public and have been developed by the TALP research group of the Universitat Politècnica de Catalunya, with funding from the Catalan government, as part of the FestCat project (<http://gps-tsc.upc.es/veu/festcat>).

From this project, two voices have been chosen – Ona and Pau – that are more widespread, given that the speech synthesis system of the Grup de Recerca en Tecnologies Mèdia (Media Technologies Research Group) of La Salle (URL) is based on unit selection and following the pre-established parameters of the prosodic model.

Once there are voice files, the synthesis system has to “create a new voice”, i.e. process voice samples so that they can be used to generate a synthetic voice. The creation of a new voice consists of three main stages:

1. Segmenting the database into units of synthesis that determine the start and end of each acoustic unit (diphones, in this case) that make up the messages recorded in the voice files.
2. Indexing and parameterising the database to generate the files in XML format that contain the parameters describing the acoustic content of the database (duration, energy, underlying frequency of the units). At the same time, the cost function selection has to be adjusted, something that involves, on the one hand, pre-calculating all the costs of the database units and, on the other, adjusting the weights of the cost function (Alías *et al.* 2011).
3. Training the prosodic model to determine the most appropriate pronunciation of a text input, to be synthesised by extracting prosodic patterns taken from available voice samples (Iriando *et al.* 2007).

Once these three stages have been completed, the voices Ona and Pau can be used, integrated within the La Salle speech synthesis system, to carry out the experiments that aim to analyse the viability of using speech synthesis in audiovisual productions, described below.

5. Experiments and results

Different characteristics can be evaluated in the area of speech synthesis, such as intelligibility, naturalness and expressiveness. In some applications, for example in speaking machines for the blind, the intelligibility of speech at high speed is more

important than its naturalness (Llisterra *et al.* 1993). On the other hand, correct prosody and great naturalness are essential in most multimedia applications. The evaluation can be carried out at different levels (segment, word, sentence or paragraph) and with different kinds of tests (Campbell 2007).

In order to achieve a subjective evaluation of the viability of using speech synthesis to generate audiovisual material, two perceptive tests were prepared: one using an advertisement and the other a news item. For each test, a set of pairs of stimuli was prepared. Each pair had the same verbal content but one was generated by the synthesis system and the other was read by a person. Once the stimuli were prepared, the most suitable type of test was decided to present them to the listeners, as well as the methodology used to evaluate these stimuli. In the case of the advertisements, only the audio channel was used, while in the case of the news items there were videos with images related to the news and an audio channel made up of a background soundtrack (music, street noise, voices, etc.) superimposed over the track of the narrator's voice.

As has already been mentioned, the aim of the experiment was to evaluate speech synthesis in advertisements and news items. There was a pair of audio files (advertisements) and video files (news items) for each element to be evaluated. Different kinds of presentations were proposed for the stimuli (individually or in pairs) and scales of ranking. Based on recommendation P.800 of the International Telecommunication Union (ITU) (ITU-T 1996), the Comparison Mean Opinion Score (CMOS) was chosen, which allows the comparison of two stimuli, *A* and *B*, as:

- A much better than B
- A better than B
- A slightly better than B
- About the same
- B slightly better than A
- B better than A
- B much better than A

Listeners used this scale to compare and rate the two stimuli presented, listening to them as often as required.

5.1. Advertisements

To evaluate the use of speech synthesis in real situations, a test was prepared with seven advertisements. Two sound files were generated for each advertisement, one based on an amateur narrator reading an advertisement and the other using our speech synthesiser in Catalan.

The test was carried out using the online platform TRUE (Testing platform for multimedia Evaluation) (Planet *et al.* 2008), which allows the test to be designed and carried out remotely.

For each pair of audios associated with the same advert, the test participant was asked two questions:

1. "The following audios (*A* top, *B* bottom) correspond to two readings of advertisements. The question is not to evaluate whether you prefer the voice of one woman to another but

to indicate your preference regarding their use in advertising, focusing on the NATURALNESS of the pronunciation and intonation:"

2. "With regard to INTELLIGIBILITY, what do you think?"

The test was carried out with 25 listeners (12 women and 13 men) aged between 18 and 66.

The preferences obtained with this test are shown in figure 2, where *A* represents the natural voice and *B* the synthesised voice. As expected, the results show a clear preference for the natural voice, especially in terms of naturalness, although this difference is not so great in intelligibility.

5.2. News videos

The aim of this experiment was to add two customary components to the voice in audiovisual material: an image and a soundtrack in addition to the voice track. A test was prepared with three pairs of news items. Using material taken from YouTube and a voice generated by our synthesiser, news videos were made with three tracks: the video track itself and two audio tracks (background sounds and a voice).

The test was also carried out using the TRUE platform and there was a CMOS with seven categories. 20 people took part (17 men and 3 women) aged between 24 and 41. The users were not informed of the origin of both voices. At the end of the test, participants were asked their sex and age and whether they were speech technology experts. They were then asked two open-ended questions:

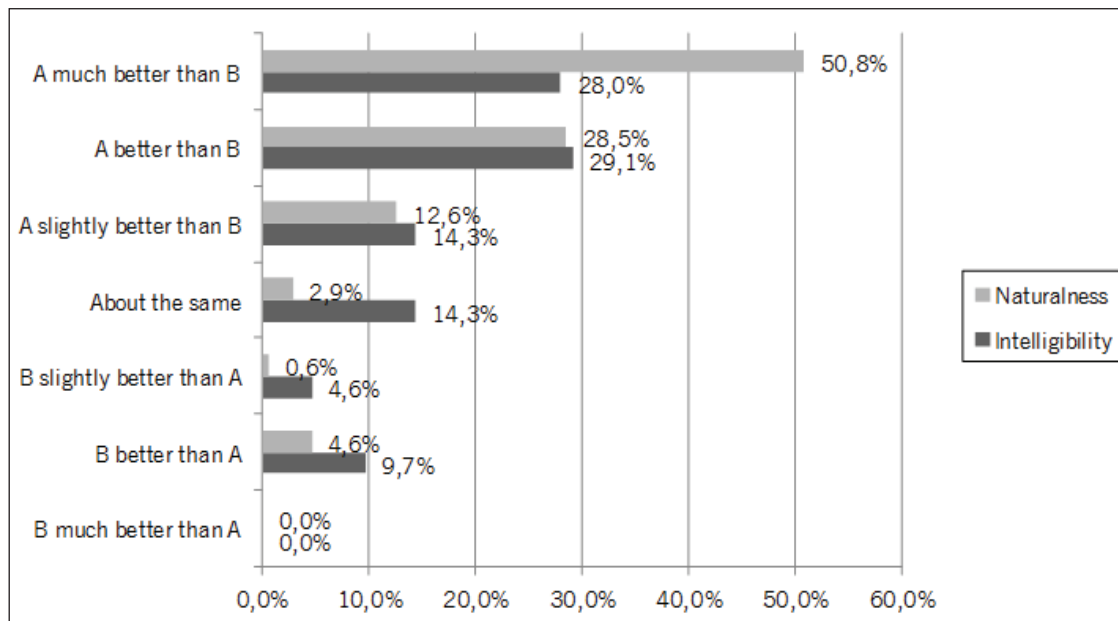
1. "The bottom video voice was generated by a computer. What did you think of it?"
2. "Do you think it's feasible to use speech synthesis to explain news on programmes generated automatically?"

The results obtained are shown in figure 3, where we can see that the majority response is that the natural voice is slightly better than the synthetic one (46.3%). It is important to note that practically 26% of the answers (18.5 % of *about the same* plus 7.4% of *the synthetic voice is slightly better than the natural voice*) indicate that the synthetic voice is acceptable in this context.

If we analyse the responses of the participants where they have given their opinion, after having done the test, regarding the use of speech synthesis to generate news, we can note two general ideas. Firstly, listeners are highly sensitive to certain errors in a specific part of the text, and expressiveness and rhythm need to be improved. Secondly, the majority opinion is that it is viable to use this technology to generate breaking news, for example for a website or semi-automatically generated programmes. To illustrate these two conclusions, below is a broad collection of the responses obtained in tables 1 and 2.

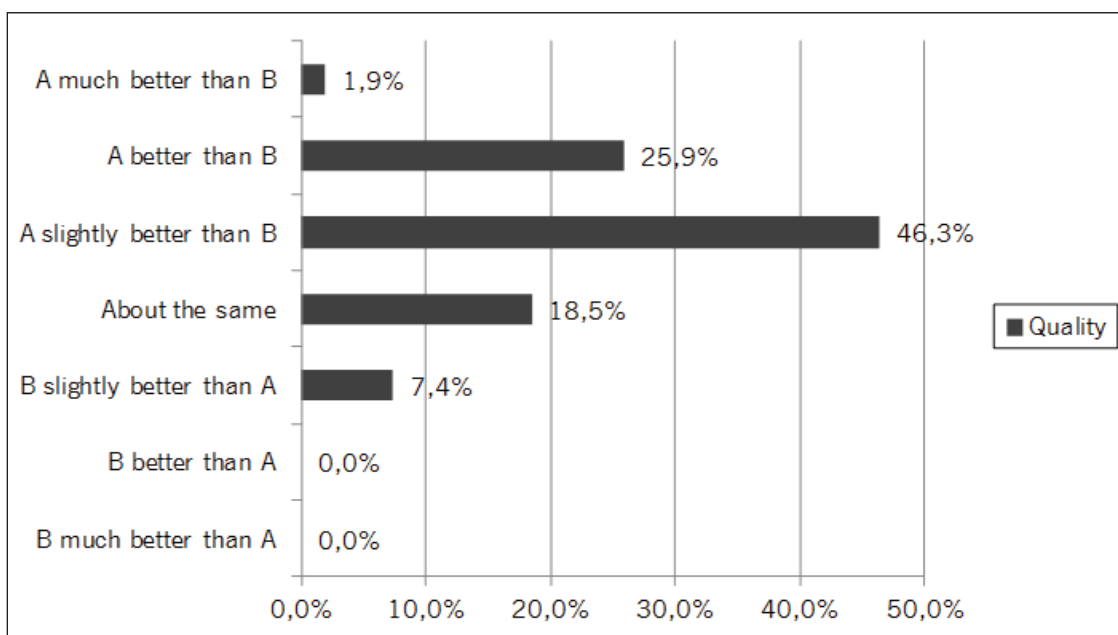
If we compare the results with the advertisement test we can see that adding video and background sound helps to dissimulate the errors of the synthesis and to divert attention, making the use of a synthetic voice more acceptable.

Figure 2. Results of the advertisement test regarding intelligibility and naturalness. A corresponds to the natural voice and B to the synthesised voice



Source: authors.

Figure 3. Results of the news videos test regarding the quality of the voice in off. A corresponds to the natural voice and B to the synthesised voice



Source: authors.

Table 1. Selection of answers to the question “The bottom video voice was generated by a computer. What did you think of it?”

“Quite acceptable, although a bit slow and with some mistakes in specific sounds.”
“Good quality in general, although there are some gaps and jumps in the intonation.”
“Quite good but you realise it’s not human at certain times.”
“Sometimes very good (even better than the original), and others not. The “false notes” from time to time bring down the overall quality.”
“Not very natural, although you could notice a little expressiveness and the audio’s quality was quite good. Maybe problems in keeping a constant rhythm; you notice jumps in the rhythm.”
“The voice is a little metallic. The intonation isn’t natural enough. Without doubt, you realise a machine is talking to you all the time. Nevertheless, the message is understood correctly.”
“Quite good, especially in the first one. The background noise dissimulates the errors. Depending on the subject, the narrator’s style should vary (e.g. in a festive atmosphere, speaking more quickly).”
“You notice that it’s a synthetic voice but it doesn’t bother you because it goes with with the music and images and its quality means you can understand clearly everything it says, even better, sometimes, than the real one.”
“Quite good in terms of resemblance to the human voice and intonation. What makes it less quality than the human voice are some sounds, “clicks”, that appear from time to time.”
“The quality was quite good in the first test, while in the rest the quality deteriorated. The concatenation between units is quite noticeable.”
“Quite good; the main problem are the coarticulatory artefacts that make the voice less natural.”
“Quite good taking into account that it’s a synthetic audio. However, it’s quite noticeable that it’s not a natural human voice.”
“Acceptable quality. The only problem I detect, which is repeated quite often, is the lengthening/dragging of some vowels and consonants.”
“The voice is correct and clear but from time to time there are strange sounds and it sounds distorted.”

Source: authors.

The audio and video files generated by the experiments can be found at the following website: <http://www.salle.url.edu/portal/departaments/home-depts-DTM-projectes-info?id_projecte=67>

6. Conclusions and future lines of work

In this article, after reviewing the state of the question in the area of speech synthesis (also known as *text-to-speech conversion systems*), the status has been studied of this technology in Catalonia and, specifically, in the area of audiovisual productions. At present there are various research centres and companies working to develop and improve speech synthesis systems in Catalan. However, the penetration of these systems in the context of generating audiovisual productions is still very limited. Given this situation, the feasibility has been evaluated of implementing this technology in the world of audiovisual pro-

ductions, by means of fieldwork that has consisted of several interviews, both with technical staff and potential users, as well as a set of experiments designed to study the degree of acceptance of synthesis in real examples.

From both the interviews and the experiments carried out, it can be concluded that using synthetic voices in broadcast content could become a reality in the coming years if certain aspects are improved in terms of the expressiveness of the content. Another important aspect is the number of modes that form part of the content. If the voice is accompanied by other, superimposed audios, as well as a video channel, the use of a synthetic voice is likely to be more feasible. On the other hand, in content where there is only a voice (e.g. a radio advertisement), listeners’ demands regarding the quality of this voice are greater.

Using speech synthesis (not just in Catalan) as a support in order to have more automated systems capable of providing more natural and also more inclusive content is one of the chal-

Table 2. Selection of answers to the question “Do you think it’s feasible to use speech synthesis to explain news on programmes generated automatically?”

“Yes, I think it’s feasible and interesting.”
“Yes, especially if they are short news items and breaking news, so that a semi-automatic form is more appropriate, making it possible to present the content more quickly.”
“It should be more than feasible in the future.”
“It wouldn’t be feasible for TV news, for example, but it might be for internet content, where the quality of the content is not the priority but the content per se.”
“It lacks naturalness and expressiveness, which help to make a news item more attractive. However, the intelligibility is very good and the message can be conveyed perfectly. It would be feasible.”
“Yes. In spite of the lack of naturalness, which can be improved. The result is satisfactory enough.”
“Yes. The small problems with the synthesis remain under the news soundtrack and don’t pose a problem to understanding it. What’s more, formally the narration is correct (neutral tone).”
“Yes. It’s just as intelligible as the human voice.”
“Yes but it depends on the sphere in which it’s applied. If it’s an internet platform, I think this quality is acceptable for users.”
“Yes, provided the aforementioned artefacts are avoided.”
“Yes, I think it’s feasible but not as TTS is now. It still needs to be more natural. The voice it generates at present is too unpleasant for a narrator you have to listen to regularly.”
“The understanding is perfect. If the issue with the small distortions could be improved, it would make following the new items more pleasurable.”

Source: authors.

lenges that is already being tackled. In this respect, there are studies (<http://www.daisy.org/benefits-text-speech-technology-and-audio-visual-presentation>) that state that including the acoustic mode as an alternative to presenting content purely in a text format, for example, helps to increase retention capacity, therefore being a suitable way to present learning activities in environments of a more audiovisual nature. There are already companies whose business is to provide automated voice services based on textual information, such as IVO Software (<http://www.ivona.com>), Odiogo (<http://www.odiogo.com/>) and NextUp.com (<http://www.nextup.com>), with which, for example, oral information can be incorporated into a website or solutions provided to generate voices automatically based on text documents. Although solutions such as these will provide us with systems that are increasingly adapted to the user, we are still far from seeing systems that act like people and avoid any minimal sound artefact or that accentuate the differing degrees of expressiveness in the human voice. In any case, the solutions we might find in the world today still don’t allow us to achieve a quality message comparable to narration by a real person in a real conversation, but we are getting closer and the new paradigms of interaction and exchange with content providers that will appear in the future will surely take into account the use of

speech synthesis technology as a highly valid tool to emphasise or provide a message that is closer to a human one.

In order to enable the use of speech synthesis in audiovisual content, progress needs to be made along the following lines of investigation:

- Improve the expressiveness of generated speech, adapting suprasegmental features (pace, intonation, intensity, emphasis, etc.) to the narrative characteristics of each kind of content. This improvement can be achieved if we take advantage of the expertise in the field of audiovisual communication.
- Improve the segmental quality of the synthesis to avoid sound artefacts, as we must remember that human hearing is very sensitive to these small errors. Particularly important are errors related to phonetics and signal processing. It would therefore be advantageous to employ the know-how of phonetics experts to improve, for example, the rules of phonetic transcription, especially related to coarticulation. Regarding signal processing, there is still a long way to go in voice parameterisation and modelling to be able to modify a voice’s characteristics without distorting it.
- Find new methods to generate new voices using voice transformation techniques that help to increase the number of high quality voices available in a specific language.

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Audiovisual clusters and public local television: the end of the mirage

DAVID FERNÁNDEZ-QUIJADA

Assistant lecturer at the Department of Audiovisual Communication and Advertising of the Universitat Autònoma de Barcelona (UAB)

david.fernandez@uab.cat

FEDERICA ALBORCH

Doctorate student in Communication and Journalism at the Universitat Autònoma de Barcelona (UAB)

mariafederica.alborch@uab.cat

Article received on 07/06/11 and accepted on 13/12/11

Abstract

In the last years, local television has been seen as an emerging industry linked to projects of audiovisual clustering. Through interviews with some of the actors implied in these processes, this article takes to pieces the discourse generated around the capacity of local television to act as a driver of the audiovisual industry; it cannot contribute to develop local audiovisual clusters, which have grown without control because of the lack of a national cluster policy for the audiovisual sector. The inactivity of the regional government has generated problems such as an excessive competence or a lack of coordination.

Keywords

Cluster, local television, public service broadcasting, audiovisual industry, communication policies.

Resum

La televisió local s'ha vist en els darrers anys com una indústria emergent vinculada a projectes de clústers audiovisuals. A través d'entrevistes amb els actors implicats, aquest article desmunta el discurs optimista generat entorn de la capacitat de la televisió local per actuar com a tractor de la indústria audiovisual, i estableix que no contribueix a desenvolupar uns clústers audiovisuals locals, que s'han multiplicat sense control per la falta d'una política nacional de clústers per l'audiovisual. La inacció de l'Administració autonòmica ha provocat problemes com l'excés de competència o la falta de coordinació.

Paraules clau

Clúster, televisió local, servei públic de radiodifusió, indústria audiovisual, polítiques de comunicació.

1. Objectives and research questions

Over the last few years, different industrial projects have been developed in the Catalan audiovisual sector that take advantage of the economies of agglomeration to exploit the geographical proximity of sector companies and develop synergies, increasing the scale of production, optimising distribution and marketing and improving relations with suppliers and clients within a well defined geographical area. These companies help to create poles of specialised skills focusing on audiovisuals, giving shape to genuine industrial districts beyond organic development per se. This allows them to cooperate with other firms and, at the same time, improve the overall performance of all of them as such improvements feed back into the structure. In short, they combine competition with cooperation under a formula generically called a cluster.

This formula has become very popular and has started to be applied in political circles related to the media and new technologies. Catalan research into these areas, however, has not been very interested in clusters as an object of study to date, something which is surprising given the status they have achieved within the industry. This gap in academic literature is what this article hopes to fill, focusing on current projects or those being

developed in Catalonia that relate these clusters with the new local public channels of digital terrestrial television (DTT).

The aims of this research can therefore be summarised into four:

- Detect and identify the main cluster projects existing in Catalonia related to the local audiovisual sector.
- Characterise these projects and establish the different types in existence, as well as the different actors and economic sectors involved.
- Delimit the functions carried out by clusters based on the cases analysed.
- Establish the strategies designed to interrelate these projects rooted in the region with local television.

Through these objectives, a whole series of research questions were established that this study hoped to answer:

- Which cluster projects exist in Catalonia in the local sphere?
- Why do clusters appear?
- What are the main characteristics of these initiatives?
- Which actors are involved in these projects?
- What are the objectives of clusters?
- How do they act and what tools do they use to achieve these objectives?

7. How do the actors involved in clusters relate with local television and with the region's audiovisual industry?

2. Research method

The proposed research investigates the object of study by using the case study as its instrument of analysis, the most appropriate method when three circumstances coincide (Yin 2009): questions are raised as to how or why, the researcher has little control over the object of study, and the research is looking at a contemporary phenomenon in a real life context. These three circumstances occur in the case of local audiovisual clusters.

This article first describes and then explores the cases analysed (the *what* and the *how*), subsequently being able to explain the phenomena detected based on the sources of evidence presented (the *why*). It is therefore an eminently qualitative approach.

In order to answer the research questions posed, a method was designed with five phases, combining primary and secondary sources:

- A bibliographical and documentary review of available studies on the subject at a European level, especially from the academic sphere.
- Production of an analytic dataset.
- Monitoring the different local DTT projects and their possible *clusterisation*.
- In-depth interviews with those in charge of the different projects identified.
- Analysis of the clusters, establishing a comparative framework based on the analytic dataset.

Six cluster projects were identified: Barcelona with 22@; Terrassa with the Parc Audiovisual de Catalunya (PAC); Vilanova i la Geltrú with Neàpolis; Granollers with the Centre Audiovisual de Roca Umbert Fàbrica de les Arts; Mataró with the TecnoCampus, and Lleida with Magical Media. With the exception of the TecnoCampus Mataró, all the rest of those in charge of the cluster projects identified accepted our request for an interview, initially formulated by email and held, in some cases, by telephone (table 1). Access to respondents was quite a lot more difficult in the case of local television stations: Barcelona Televisió, Vallès Oriental Televisió, Canal Terrassa Vallès and M1TV de Mataró did not accept our request. The local public television station for Lleida is not broadcasting at the moment, so it was not included in our list of possible interviewees.

3. Theoretical framework

In the economic literature, the term *cluster* appears very much related to that of *industrial district* and, in fact, this terminological difference has also given rise to two different conceptions of how groups of companies function. The idea of *cluster*, in its spatial sense, has been made popular since the 1990s principally through the work of the North American economist Michael E. Porter (1990). The notion of *industrial district*, on the other hand, is based on the work by the Italian Giacomo Becattini (1979), who reclaims and updates the postulates of British academic Alfred Marshall (1963, originally from 1890). In the specific case of Catalonia, both terms arrived quickly and were incorporated and applied by different economists and researchers.

Table 1. List of interviews carried out

Project	City	Representative	Position	Date
Clusters				
22@	Barcelona	Marc Sanmartí	Director of Territoris Estratègics de 22@, SL	18/03/11
22@	Barcelona	Marta Ysern	Business Development Director for the Barcelona Mèdia Foundation	31/03/11
Roca Umbert Fàbrica de les Arts	Granollers	Lau Delgado	Coordinator of the Audiovisual Research and Distribution Centre of Granollers	25/03/11
Magical Media	Lleida	Santiago Planas	Science Director at the Food Science and Technology Park of Lleida	04/04/11
Magical Media	Lleida	Pep Oriol	Project Consultant	04/04/11
Neàpolis	Vilanova i la Geltrú	Joan Carles Lluch	Managing Director	06/04/11
Parc Audiovisual de Catalunya	Terrassa	Quim Berenguer	Service Designer	08/04/11
Local televisions				
Canal Blau Televisió	Vilanova i la Geltrú	Jordi Carrillo	Managing Director	13/05/11

Note: Added to these interviews is the one held with Antoni Esteve as an expert on the theme, Chairman of the TV production company Lavinia and very much involved in the local sphere (Barcelona, 2 May 2011).

Source: Author.

In the industrial world, a *cluster* is defined as a concentration of companies related to each other, in a relatively defined geographical zone, so that they make up, by themselves, a specialised production pole with competitive advantages. This is what can be inferred from the classic definition of Michael E. Porter (1998), which establishes that they are geographic concentrations of interconnected companies, specialized suppliers, service providers, companies in related industries and associated institutions (for example, universities, standards-setting agencies and trade associations) in particular fields, which both compete and collaborate. Porter's central argument is that both institutional relations and relations between companies encourage innovation, international competitiveness and the capacity to grow. Many of the industrial policies on regional and local development for developed countries over the last few decades have been based on this idea, including Catalonia (Hernández Gascón, Pezzi, Soy and Casals 2010).

Public policies for clusters were created to support the strategic groups of companies in a specific territory. In other words, based on the detection of a group of strong industries in a certain area, the aim of public policy was to stimulate this and encourage it via different measures, such as consultancy, R&D and assistance for internationalisation. These initial policies for natural clusters were followed by a policy of what Pacheco-Vega (2007) calls *induced clusters*; i.e. industries that, given their size, cannot be considered as a cluster but where the potential has been identified for them to become a cluster in the future. And that is why they are aided.

In the case of the audiovisual industry, British clusters are surely the best documented in the European context. Chapain and Comunian (2008) compare the cases of Birmingham and Newcastle-Gateshead and find that their potential comes from the characteristics of the city per se, while the main problems are shared, such as limited markets, a negative image and competition with the capital, London. They also highlight the need to analyse these areas' connections with other production centres to understand the phenomenon in all its complexity. For their part, Cook and Pandit (2007) chose London, Bristol and Glasgow for their comparison. Among their conclusions, they question the regional scale in the process of clustering, as well as little evidence that an active public policy can boost this. The Bristol study by Bassett, Griffiths and Smith (2002) highlights the fact that smaller cities can play a leading role in the sphere of cultural production if they have the capacity to retain some autonomy with respect to the large centres, such as London. This capacity depends on some specifically local circumstances that cannot always be repeated. In the case of Bristol, public-private collaboration has been crucial to attracting investment and infrastructure. On the other hand, there are factors that go beyond the local sphere and therefore escape the action of local public policies, such as international distribution networks, market volatility or technological change. These specialised clusters, therefore, can only survive by continuous adaptation, innovation and creativity, bringing new areas of activity into the cluster.

A few other authors claim that policies aimed at promoting specific industries so that they develop into clusters are not always effective because the regions where they are applied suffer from a lack of suitable resources or the necessary institutional structures. The study by Turok (2003) on the cluster policies of the audiovisual sector in Scotland point out that cluster policies "à la Porter", focusing on developing local supply chains and local collaborative networks, are not enough to create and develop clusters that promote regional objectives. They are often even unnecessary policies. Another habitual criticism of Porter's model has been its *ahistoric* nature; i.e. that it defines a series of parameters that may ignore, for example, the reasons for the historical location of a firm in a particular place. Similarly, it has also been criticised for placing too much emphasis on local relations while the importance of national and international connections has been ignored or undervalued for these groups of firms.

In short, clusters are built up on the strengths of the region itself in the form of clients and suppliers, infrastructures and natural resources, human resources available, reduced transaction costs due to limited distances, research and training centres and universities. For a balanced analysis, however, we must also evaluate the possible negative effects of proximity, such as predatory behaviour in the search for clients and highly specialised labour.

In the Spanish case, the creation of audiovisual clusters occurs within the context of the attraction generated over the last few years by audiovisuals as a strategic sector and with a great potential for growth. To exploit the advantages of companies clustering together, public policies and some private initiatives have attempted to develop industrial parks focusing on audiovisuals as a way of concentrating the industry's resources and thereby increasing exchanges and productivity within it.

These models based on the clustering of companies must be distinguished from other initiatives also called clusters that ignore the geographical element, key to the classic definition of cluster. These tend to be political initiatives that, with similar objectives, aim to boost cooperation between agents in the audiovisual sphere by means of different programmes. This has been a clear tendency in Spain's autonomous community policies over the last decade, with the creation of cluster entities such as the Cluster Audiovisual Galego, the Eiken-Cluster Audiovisual de Euskadi, the Cluster Audiovisual Valenciano, the Cluster Audiovisual de les Illes Balears, the Cluster Audiovisual de Extremadura or the Cluster Audiovisual de Madrid. In this case, these are more like professional associations, many of which, under the officially recognised formula of innovative business groups (AEI in Spanish and Catalan), pursue a certain cooperation between their participants based on postulates of the Marshall-type industrial district. The AEI formula is defined as "the combination into one geographic space of specific industrial companies, training centres and public or private research units involved in processes of collaborative exchange and aimed at securing advantages and/or benefits resulting from carrying

out joint projects of an innovative nature".¹ This formula originates in the Business Development Plan approved by the Spanish government in January 2006, inaugurating a new industrial policy based on two pillars (Trullén 2006): strengthening the advantages resulting from scale and strengthening the advantages resulting from the environment in the form of growing returns associated with the spatial concentration of innovative SMEs. These clustering policies have received some attention from academic research, although to date very little attention has been paid to the audiovisual sphere.²

4. Cluster projects and local television in Catalonia

A documentary analysis of the cluster projects and opinions of the sources of information led to a large and varied range of information. This analysis has been carried out from a comparative perspective of all the projects, characterised in table 2, so that the shared elements can be seen and therefore the trends offered by the different experiences. Beyond design, the differences can be explained in some cases by the differences in key aspects such as the resources invested or the number and size of the agents involved. That's why the analysis focuses on eight aspects that have emerged as central: the defining label for the projects, the spheres and lines of work, the role of training, the role of research, business relations, relations with local television, the scope of the project and its elements of coordination.

Labels

The importance of being labelled a cluster does not seem to have been taken on board by all the people interviewed in this research. One initial position is that of indifference, with statements such as "we'd already been in operation for some time, doing cluster activities, with or without a label; I think that's secondary". A second position is taken by those who don't exactly see themselves as a cluster. One respondent comments "I wouldn't define myself as a cluster, rather a hub", a notion that refers to a more centrifugal than centripetal role, and notes that "the city works as a cluster space". Finally, others do recognise themselves as clusters and have assumed a discourse along these lines.

Beyond labels, a predominant perception emerges that the urban development and real estate project to which the cluster is linked has often been more important than the production project itself or support for the industry, as if the audiovisual cluster were merely an excuse for a different urban development plan: "normally these centres are set up because a mayor is desperate because they have to renovate an area and because someone sees that audiovisuals are "mass", because it's the latest buzzword and the guys say: [let's set up] an audiovisual centre", or simply "the concept of cluster is too large... too real estate".

Spheres

The spheres worked on by the different projects are varied, although a phrase such as "create a new sector of economic ac-

tivity related to issues of new technologies, providing their city with capacity and detecting the talent in the city" could surely be applied to almost all the cases analysed.

Content creation plays a key role in all the projects, although there are nuances. Some cases such as Terrassa and Lleida are very clear, as infrastructures predominate in the project, although this is not the only task. Others such as Barcelona focus on attracting companies by offering other incentives or promoting incubators, such as those of Granollers, Mataró and Terrassa. Along the same lines is *co-working*,³ a very important line of work in Vilanova i la Geltrú and, more modestly, in Terrassa. The case of Mataró needs to be treated separately, as the shift in positioning for the audiovisual project revealed when we communicated with them seems to indicate that some of the elements contained in the original plan have failed. As it was impossible to gain access to someone from the Parc TecnoCampus to provide us with more information, we have not been able to investigate this specific aspect further.

One aspect that is common to various respondents is the need to push the boundaries of audiovisuals, which are by their very nature wide-ranging. The possibility to transfer experience and know-how in this field to other areas where it might be useful is a particularly interesting option in the current period of economic crisis and the crisis in the media. The relatively common sensation of an overly large Catalan audiovisual sector would encourage some of these clusters to work towards new areas, ranging from e-commerce to public services such as education, health or care for dependents. One specific example of this idea is *living lab*⁴ which is taking over as a formula in various clusters.

Training

One characteristic of the six projects analysed is their link with training activities. The first level is university, with the presence of the Universitat de Barcelona (Barcelona and Terrassa), Universitat Pompeu Fabra (Barcelona and Mataró), Universitat Politècnica de Catalunya (Terrassa, Vilanova i la Geltrú and Mataró), Universitat Oberta de Catalunya (Barcelona and the support centres located in various clusters) and the Universitat de Lleida (Lleida). In some cases the aim is to take part in the atmosphere of an environment of economies of agglomeration (clearly the case of 22@), while in others the link is stronger, either via the university being directly involved in the cluster (Lleida) or because it constitutes an essential element of the project (Mataró). The second level is professional training, important in Lleida, Terrassa and Vilanova i la Geltrú. These are the auxiliary tasks required to carry out audiovisual projects in which each of these towns has a particular strength. The third level is continued learning, an emerging area.

Research

The situation regarding research is similar to that of university training. The following phrase is quite significant in terms of the orientation pursued by all clusters: "we want to create a symbiosis between the public and academic sector".

Table 2. Characterisation of the clusters analysed

Clusters	22@	Parc Audiovisual de Catalunya	Neàpolis	Roca Umbert Fàbrica de les Arts	TecnoCampus Mataró	Magical Media
Objectives	<p>Urban renovation of the industrial zone of Poble Nou.</p> <p>Transform the zone into a science, technology and culture platform centred on innovation.</p> <p>Influence the role of new technologies in improving professional activity and quality of life.</p>	<p>Create audiovisual infrastructures to produce and attract companies and projects.</p> <p>Strengthen the audiovisual training offered in Terrassa and its relations with the business sector.</p> <p>Generate activities around the audiovisual sector.</p>	<p>Support the implementation of access networks.</p> <p>Strengthen university studies located in the city and propose new ones.</p> <p>Generate new research and development groups.</p> <p>Promote economic activities and innovative technological proposals.</p> <p>Become a benchmark in the creation of audiovisual, interactive content in Catalan.</p>	<p>Share resources.</p> <p>Bring together productions resulting from artistic collaborations.</p> <p>Become an example of an arts district integrated within the rest of the city.</p> <p>Bring culture and arts alive by involving citizens.</p>	<p>Improve the ties between academia and society.</p> <p>Take over ownership of the Polytechnic University School of Mataró and the University School of the Maresme.</p> <p>Carry out the tasks benefiting a Science and Innovation Park in the area of technology-based business investment.</p> <p>Attract technology-based business investment and promote activities in Mataró and its area of influence.</p> <p>Offer audiovisual training to obtain better qualified professionals.</p>	<p>Encourage local audiovisual production, offering equipment and support for different initiatives.</p> <p>Form an area of R&D and innovation and transfer working on medium-term profitable projects that can be attractive both for researchers and for future sellers, based mostly on franchises that generate revenue to achieve new lines.</p> <p>Offer audiovisual training to obtain better qualified professionals.</p>
Infrastructures	Urbanització 22@, including spaces such as Parc Barcelona Media and the MediaTIC building	2 active studios + auxiliary areas, 2 studios under construction, business incubator, co-working area and archive for the Filmoteca de Catalunya	2 studios, auditorium and co-working area	Studio + auxiliary areas, postproduction room, Digital Audiovisual Archive of Granollers, research areas and main offices for the local TV station	4 buildings + those of the TecnoCampus Network (TCM V. 1.0, Nau Minguell and Hotel & Catering University School of Sant Pol)	5 studios + auxiliary areas, postproduction rooms and auxiliary areas
Training	UPF, UOC, UB-IL3, UPC and Bau - Higher Design School	Specific projects and academic courses in Terrassa (ESCAC, UPC, Drama Institute and training cycles)	UPC, UOC, University Campus of the Mediterranean, Municipal School of Art & Design and own ICT programmes	Learning networks in cultural management and Technological & University Centre of Granollers	UPC and UPF	UdL

Clusters Elements	22@	Parc Audiovisual de Catalunya	Neàpolis	Roca Umbert Fàbrica de les Arts	TecnoCampus Mataró	Magical Media
Research	Barcelona Media Innovation Centre, Barcelona Digital Technological Centre, Yahoo Labs, Orange and others	Audiovisual Livinglab Terrassa	Vilanolab (living lab) and projects with the UPC and other partners	Audiovisual Distribution and Research Centre of Granollers (CIDAG)	With the UPC, TCM-Net-lab, TCM Living Labs, TIC/Media, TCM Audiovisual and CETEMMSA research centre	Digital content for education, stereoscopy, precise geographic positioning, digital content conservation, participative projects in 4D, automatic animation, games, virtual exhibitions, alternative digital advertising and multimedia / multi-support / multi-screen content.
Business	1,502 companies (2009 census)	Around twenty companies in the incubator and the Tòrax Club, a network of associated companies	Canal Blau-Maricel TV, Teledigital Consortium of the Garraf	Vallès Oriental TV and content company incubator	Around fifty companies and a dozen more in the incubator	Incubator of the Technology Park

Source: Author.

In fact, the transfer of know-how to industry is an evident, shared interest, something which has resulted in the creation of specific transfer offices in some cases. Others encourage the involvement of firms in research projects. Sometimes this direction in research encourages companies to set up internal R&D departments. This is the situation of the larger clusters (which are also more research intensive) while, in the smaller clusters, the work can end up becoming one of replacement: "I sometimes end up becoming the R&D of what should be companies of a certain size in the sector". Clearly one of the most evident incentives behind this dominance of research has been the lines of finance available for research programmes at a Catalan, Spanish and European level. The Plan Avanza, a source of funding in Barcelona, Terrassa, Granollers and Lleida, has appeared at various times in this research as a kind of Holy Grail to start up projects or develop specific lines of work. At another level, AElS have played a similar role, more focused on the area of production. In any case, there are still doubts as to whether clusters will be self-sustainable once the manna of funds for the large projects ends.

With regard to research subjects, the different clusters have attempted to specialise, paying attention to different problems; for example, focusing on distribution (Granollers), on citizen applications (Vilanova i la Geltrú), on creating formats (Lleida), on advertising (Lleida), etc. Other areas are more shared between them, such as stereoscopy or product testing in living labs.

Business

There is a common desire for collaboration between the clusters as public agents and the private sector, although the ways in which this comes about are different in each case. Also varied is the type of firm present in the clusters. One respondent states that "our fundamental job is to be the industrial infrastructure", so that the goal is to attract companies to use the infrastructures and services available. In other cases there are nuances: "we are a public company in both senses: we are a company and we are public. In some way, we have to recover revenue, we have to justify billings and, on the other hand, there is a public desire to support the creation of companies, to support youth and innovation projects, which we have to carry out from the perspective of a public and not strictly private company".

Beyond the model of renting infrastructures, which is core in cases such as Terrassa and Lleida, and complementary in Vilanova i la Geltrú, Granollers and Mataró, the relationship with business has also been developed via other means. One of the emerging methods is to create incubators via which clusters assist and advise new innovative firms, also offering preferential access to technical equipment: "the function a cluster must have is to help generate what we have in new, emerging or strategically interesting sectors that would not be generated naturally".

A third, looser model is that of association. An evident example would be the Tòrax Club of the Terrassa PAC, which manages to maintain a certain link with the private sector beyond the classic

model of commercial or contractual ties. The aim in Lleida is to develop a similar model that involves firms in research.

Relations with local television

Public local television stations are included among the companies related to clusters. Or at least it would seem that this should be the case, at first glance. In fact, of the cases analysed only Barcelona Televisió, Canal Blau-Maricel TV and Vallès Oriental Televisió are located within the clusters of Barcelona, Vilanova i la Geltrú and Granollers, respectively. For the present, no public operator is on air in Lleida, while in Terrassa and Mataró the public television stations are still at their offices in the city centre.⁵ In these last two cases there is no relation between clusters and local television.

Even when local television is within a cluster, interaction and collaboration are limited. In most cases these limitations are due to local television being a financially weak sector, as explained to us by Canal Blau-Maricel TV: "we have a commitment with a consortium, we have the money we have to do things, we have the staff we have and things are tight. When we do something extra, for us it's a terrible headache". In any case, it's not a question of lack of desire but lack of resources: "there is a public consortium with six councils that provide public money for a TV station. You have to use this money to make television; you can't use it to do something else... or they have to authorise you". The need is therefore proposed for a guide and a political undertaking on the part of higher bodies, as the reality is that clusters and television stations are still very separate areas.

The clusters hold slightly different views. First of all, it's quite clear that local television stations have limited power: "the level of investment isn't enough to work for local industry; here there is broad ambition" or "when we ask ourselves who will create assignments for that, for us the answer is never TV stations alone, let alone local television, because it has very little money at the moment, although if the mindset changes a bit, we might end up achieving it". This other quote is along the same lines: "it's a problem of a lot of local TV stations, an age-old problem: television stations are only interested in the day-to-day stuff and don't look beyond their channel for economic returns. At the moment they're not investing in any other projects that aren't television, pure and simple, and they don't envisage television that goes even a little beyond that".

This respondent believes that this situation is difficult to change, in spite of the advantages that a local television station might offer thanks to "the agility a local TV station can have, which a large station doesn't". This person believes that, within the current context of intense competition with DTT, it doesn't make sense to reproduce the models of large TV stations but rather to explore other paths, such as audiovisual-based public services, a possible alternative via convergence with ICTs and one that fits in with the lines of work of living labs, for example.

In some cases it is felt that the location of local television stations within the clusters' facilities is a political decision that

does not meet the criteria of business or the market. One respondent believes that “very often it’s an excuse. I’ve created an audiovisual space and how do I fill it? I can move local television there and fill it”. In others, however, it is fully justified that public investment should influence a publicly-owned and public-oriented service. “From the moment it’s a town council initiative [...], the council realises that it must encourage local industry wherever possible and, consequently, spaces and services are preserved so that the DDT sphere can use them”.

Scope

The different cluster projects have very different ambitions regarding the scope of their activities. 22@Barcelona is the most internationalised project, as Barcelona competes with other large cities in Europe to attract firms and investment. In the case of audiovisuals, this view might be nuanced due to the persistence of eminently national markets in areas such as television. In fact, 22@ stresses the idea that they act as a cluster for the whole metropolitan area, a dimension that should be promoted a lot more, in their opinion: “the idea is not to compete with anyone”.

This view is not shared by the clusters located within this metropolitan area. The shadow of Barcelona and 22@ is very long. One respondent makes this clear on saying that “the only thing we can offer that Barcelona can’t offer is *affection*”. It’s difficult to compete with Barcelona in facilities or equipment: “there’s no point in offering brick or connectivity; you have to offer dynamism, content capacity, the ability to break into markets, diversification, etc.”.

One idea repeated by the various respondents is that “from our perspective, Barcelona is a cluster in itself, it doesn’t need 22@”. In other words, industry was already concentrated in Barcelona before 22@, although perhaps more spread out around the city. Barcelona’s power means that the rest of the projects have to take this into account. One respondent states that “we have an ambition not to be the cluster of [place name]”, while another, which declares that its cluster is Catalonia-wide, makes the specific point that “we interpret Catalonia as not-Barcelona”.

Coordination

From the issue of scope we go on to the idea of a lack of coordination between clusters and the fact that public financing is duplicating work unnecessarily; “there should be someone to direct a strategy, an audiovisual cluster”.

Respondents agree that there isn’t enough critical mass for all the infrastructures being created. They even ask for some containment to be carried out because, today, there are too many studios, according to quite a widespread opinion. And in all the clusters analysed there are studios as infrastructure for industry.

This also highlights the need for some project coordination, an aspect that most respondents agree about: “I don’t see a country-wide strategy, I don’t see that any audit has been carried out of which cities, which values, which assets you have

and how to relate and activate them”. The creation of clusters “is very often not directly related to the country’s strategy of industrial policy”; i.e. work is carried out unmindful of the reality of the whole and focusing on the specific need of a region.

Others, however, think in more competitive terms. “I believe we compete with everyone and we rely on having a good commercial department”, playing the card of low costs offered by the facilities and, in general, the low cost of living outside the Catalan capital. Others are positioned at a different level: “Barcelona is one battle; we have a different one” referring to the fact that they aim their proposals at a different kind of industry.

Various respondents acknowledge that some attempts have been made to coordinate the different clusters and even i2cat⁶, the Catalonia-wide technological cluster. In the case of 22@, there has not been any understanding and we are reminded that “centrality is mental, not only physical”. It hasn’t worked in other cases either: “we have a relationship with each other [...] but there’s no coordination of common projects, of planning joint Avanza or Impacto projects; projects that attract industry”.

5. Conclusions

This research has provided an initial exploration of the projects commonly called clusters that have proliferated over the last few years around the Catalan audiovisual industry. As a limitation to the findings, we should note that the view of local TV operators has not been widely represented, given the impossibility of accessing the vast majority of them, something which is quite significant. Their limited involvement in the cluster phenomenon is evident in the data available and in the view of the clusters, but greater access to these informants would have helped to provide further insight into the reasons behind this position.

The first research question asked about the cluster projects existing in the local environment. From the qualitative work carried out, it can be deduced that the definition of local environment is highly relative. Although the six cases analysed were originally chosen because they have been related, at some time, with public local television, at the time of the analysis three of them (Terrassa, Mataró and Lleida) had no kind of relationship. Vilanova i la Geltrú and Granollers are the ones that have most clearly integrated their respective local television stations. These two are precisely the smallest clusters. The last case, Barcelona Televisió, is also part of a cluster but its presence is not very relevant in such a large cluster with much bigger actors.

The second question focused on the reasons behind clusters being formed. As has already been mentioned, many of the cluster projects are related to urban development and/or real estate projects. In some cases it’s not clear which is the cause and which the effect. As mentioned by some respondents, audiovisuals has been seen as an emerging sector over the last decade; it’s not contaminating, difficult to move elsewhere,

with a technology and innovation component, cultural value and the capacity to generate new jobs requiring a certain level of skill. It is therefore a political commitment of the first order. Some of the studies that laid the foundations to the current clusters already pointed this out and, within the context of the information society political discourse, audiovisuals have become fashionable and an essential actor in modernising local industries throughout the territory. In other cases, however, there is no clear evidence of any solid foundations for the projects.

The next research question aimed to characterise these initiatives. The infrastructural element is very important in all of them. This is logical as it is the most costly element, as well as the most tangible. Moreover, it quickly generates an image of the project. There is also widespread interest in innovation, both to find and/or generate it in order for it to be applied to the production sector. Innovation is strongly related to training and especially to research, which are central elements, especially the latter, in all the projects. In fact, the research has highlighted a growing interest in transferring results to industry.

The fourth question asked about the actors involved in the clusters. These are of different types, although universities stand out, acting as a very important pole for training and research. It is also noticeable that, since universities are involved extensively in different projects, such as the UPC in Terrassa, Mataró and Vilanova i la Geltrú, they don't contribute to coordination between clusters and the research carried out by their own research groups. With regard to companies in the sector, the transfer mechanisms need to be improved and this has been stressed by a large number of the clusters studied.

The fifth question was about the clusters' objectives. Without doubt, the most common objective is to have a positive effect on the capacity of the audiovisual industry, either in the form of suitable infrastructures and equipment or via training or by transferring the results from research. In most cases activities are also carried out aimed at a broader public, but only in the case of Vilanova i la Geltrú do these have a significant specific weight. Discovering and attracting talent also figure highly on these projects' list of priorities, especially those that are smaller in size.

The sixth question aimed to discover the tools employed to achieve the objectives declared. Here the variety is as wide as the objectives are different. One sphere in which this divergence is reflected is in scope, which ranges from the city in the strictest sense to international ambition. Another sphere is the financial involvement in innovative projects, which only occurs in a few cases.

The last of the questions posed initially aimed to evaluate the role of public local television and the local audiovisual industry within the context of the different clusters. Here the image is quite disturbing. In fact, on analysing the presence and function of public television, a reality appears that is quite far removed from what seemed to be indicated by the report produced by the Catalan Audiovisual Council (2009). After this research, it can be firmly stated that local DTT does not help to develop local audiovisual clusters, as its involvement in these projects

has almost been zero. When it does take part, it is unable to bring in other actors from industry. The growth boosted by the digital switchover, which helped to legalise and professionalise local television, has encouraged a certain collective enthusiasm in the local sphere and an exaggeration of its potential to attract local audiovisual industry. In reality, it scarcely has the capacity to fulfil this role.

On the other hand, local television stations strictly fulfil their television role but do not go any further, as demanded by some clusters that wish to include them actively in their project. Here we should consider whether television stations have enough human and financial resources to take part and, if this is not the case, whether there is the political desire to ensure they take part. This commitment would mean transcending traditional audiovisuals in the search for new areas in which their capacities can be applied, along the lines of what some clusters are already starting to do, for example via living labs.

If we consider what role local television should play in this context, three great strengths or areas of expertise clearly emerge: its knowledge of the audiovisual language and environment, its knowledge and involvement in the local world and its condition as a public service.

Financing should also be added to this equation. In most cases, clusters are financed publicly, just like the television stations, although both may have other private sources, such as corporate services in the former case and advertising in the latter. A change in priorities in the functions of local television or, at least, a rethink of certain activities should come from a higher level. This is a political choice that entails breaking with the traditional conception of public television and seeing it as a public service of the first order that can, and should, collaborate with the rest of the public services financed via the contributions of all citizens. In a context of strong TV competition, moreover, this factor could differentiate local television from purely commercial operators.

Along this political line, another aspect should be noted. To date there has been no national audiovisual cluster policy. In spite of the potential attributed to the sector, the Catalan government's cluster policy has focused on other sectors. This has led to the initiatives to *clusterise* audiovisuals being based on the local environment. Moreover, these have been developed without any control and without evaluating whether the country had the capacity to absorb the whole series of infrastructures that was being created or whether work was being duplicated, be it in training, research or the creation of equipment. Evidently, here a political decision would be required regarding whether the aim is a sector with a certain coordination or whether the desire, consciously or thoughtlessly, is for competition between clusters. The policy consists of managing the *res publica* and, in this case, it has neglected its duties.

The cluster managers themselves mostly agree on the need for a coordination that has not occurred to date. There is no agreement regarding who should take on this role, although the respondents point to bodies such as the government of

the province of Barcelona or the Catalan Audiovisual Council (CAC), neither of which are likely contenders. The former because it lacks legitimacy throughout Catalonia, as its territory is a single province. The latter because this is not included among its legally attributed functions, although it could take part on the side of local television, which does lie within its brief. The other two actors mentioned are the Catalan government and the Catalan Institute of Cultural Industries (ICIC), although this is unmistakably rejected by some actors, basically because it is seen as little more than a distributor of grants, although this is not the only work it does in practice. Indirectly, another institution appears such as XAL, with an important network among the world of local television, although it does not seem that it can fulfil a role of coordination as a cluster.

On the other hand, neither can we ignore the fact that there is a Catalan-wide cluster, *i2cat*, that is highly focused on the technological area. Although it collaborates in some projects with other clusters, it seems necessary to involve it in the coordination of research tasks carried out in other clusters.

6. Action proposals

Although the fieldwork's findings for this research highlight that local television has a much diluted role in audiovisual clusters, the idea per se of cluster should not be rejected, although it seems clear that it needs to be reformulated. From such a constructive stance, ten proposals are presented:

- Broader research needs to be carried out that adds quantitative elements on the sector to the initial qualitative work carried out in this study: quantitative elements are necessary to analyse in more detail and detect the most effective elements in each cluster, be it in terms of economic profit or social benefit (population attended, encouraging innovation, contribution to training and research, knowledge transfer, etc.). However, we should also continue to focus on qualitative aspects, asking other actors such as local television stations themselves.
- If audiovisuals are truly a strategic sector, we need to implement a national policy of audiovisual clusters: this policy, which already exists in other sectors, has not been applied as yet to the audiovisual field. If we believe the rhetoric of audiovisuals as a strategic sector for the future, we must act accordingly. Among the possible proposals, that of a national audiovisual cluster could be one of the policy's fundamentals.
- Coordination needs to be established among the clusters involved, defining previously the levels of competition and cooperation required: especially at a time of limited and decreasing budgets, priorities must be established and all resources optimised. An efficient way to get the most out of material, economic and human resources (and especially of people's knowledge) is to share them, prioritising cooperation above competition. This coordination should not be limited to the clusters described here but should be extended to other projects such as *Citilab* in Cornellà, and *Spurna* in Girona.
- We need to establish a coordinator with enough legitimacy among the actors involved: an institutional but not bureaucratized coordinator that is recognised and accepted by the different actors involved and that, at the same time, can also be sensitive to the realities of such different but converging sectors as audiovisuals, ICTs and telecommunications. In our opinion, the Catalan government seems to be the most suitable contender for this function, provided there are no power battles between the different government departments that should be involved, such as Economy and Knowledge, Culture or Business and Employment.
- The core of the industry is in Barcelona but the production base must be extended geographically and culturally: this extension will help to achieve three desirable objectives, such as (a) to reflect Catalan diversity and thereby take advantage of the country's cultural potential, (b) to attract talent from all over the territory, as training centres are all around the territory, and (c) to share investment, public in many cases, generated by the sector, as public revenue comes from taxes on citizens and companies all around the territory.
- Each cluster needs to define its specialisation based on its current strengths, its present and future skills and the sector's needs in the Catalan area: not everyone can have the same skills and it's not even desirable, since specialisation is increasingly necessary in quickly evolving industries such as audiovisuals and ICTs. Moreover, specialisation helps to create niches of expertise that can differentiate this business proposal or cluster from the growing competition in these areas. All this, obviously, taking into account the needs and strategic lines of the sector in Catalonia.
- A map is required of the relevant actors in the industry and in the areas of training and research, defining their strengths and involving them in the work carried out by the clusters: the mere location of these actors cannot determine their inclusion or exclusion in these projects irrespective of the value of their contributions. In practice, this means, for example, that a cluster located in a specific place does not necessarily have to work with the university or research groups of that place if their specialisations don't coincide. The most excellent group in that field needs to be found, even if that means going outside Catalonia or Spain. Talent usually has few boundaries.
- Audiovisuals must be seen in their broadest sense and must play their part in the audiovisual development of society. This is a public service and business opportunity in a strictly audiovisual sector that seems to have hit a ceiling, in addition to helping to legitimise its existence and extend its influence. The current crisis must be used as a lever to take the leap from a strictly TV-based sector, taking advantage of audiovisuals being present throughout society. Areas

such as health, education or social welfare clearly need the know-how and skills of audiovisuals. It is a business opportunity but also the chance to influence culture and contribute to society.

- Local television needs to be more involved in those areas of action that have a local dimension or in those where involvement by this actor can add value. Close links with the territory is a key element to this involvement and to helping to enhance the cohesion of the social fabric, especially in smaller areas. Perhaps this doesn't make so much sense in other spheres, such as research. Local television does not have the resources to establish itself or take part in such spheres beyond a still limited role as a testing ground for certain technologies.
- Local television stations need to redefine their role within the digital context and assume the public service functions related to other spheres beyond audiovisuals; we cannot continue with a model from the analogue era in the digital era. The public service model is still valid, although it is constantly being redefined. However, the more limited size and scope of local television does not exclude it from such a redefinition.

Notes

1. Article 5 of Order ITC/2691/2006, of 2 August, regulating the rules, regime of aid and management of support measures for innovative company groups. *Boletín Oficial del Estado*, no. 199, 21 August 2006. <<http://www.boe.es/boe/dias/2006/08/21/pdfs/A30854-30862.pdf>>.
2. The work by Vallejo Peña (2009) is one of the few exceptions. Regarding more general studies, particularly recommendable are the monographs of 2006 from the journal *Economía Industrial* (<<http://www.a360grados.net/sumario.asp?id=239>>) and of 2003 from *Ekonomiaz* (<http://www1.euskadi.net/ekonomiaz/taula1_c.apl?IDPUBL=48>), focusing on the Basque Country, surely one of the most proactive autonomous communities in Spain in this kind of policy.
3. *Co-working* refers to a style of working in which spaces are shared by different professionals from various firms or institutions, often liberal professionals and/or freelancers. The workspace offers certain infrastructures and the possibility to network with other professionals they share the workspace with, often specialising in related activities, such the media or ICTs.
4. A *living lab* is a research and testing environment for products and services, often related to technology, that reproduces a real environment of use. The key aspect in the living lab idea is the view of users, even with their involvement via co-creation.
5. After this research had ended, Mataró television moved to the TecnoCampus (<<http://diarimaresme.com/2011/m1tv-sinstal%C2%B7la-al-tecnocampus/>>).
6. i2cat is a foundation aimed at developing the internet, in which the public administration, companies and universities take part (<http://www.i2cat.net>).

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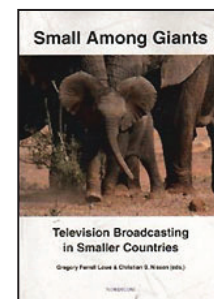
Critical book review

FERRELL LOWE, G.; NISSEN, C. S. (ed). *Small Among Giants: Television Broadcasting in Smaller Countries*. Göteborg, Sweden: Nordicom, University of Gothenburg, 2011, 231 p. ISBN: 978-91-86523-16-9.

BY **PETER J. HUMPHREYS**

Professor of Politics at the University of Manchester, UK

peter.humphreys@manchester.ac.uk



On the scale and nature of small countries' disadvantage in international media markets and the inappropriateness of large country models and one size fits all policies

This book helps fill a glaring gap in the literature. Because of their small markets, small countries find it difficult to maintain cultural policy-making autonomy and strong and dynamic national media industries. However, the literature on small countries' media systems and policies is relatively sparse. In Europe, initial interest in the plight of small countries was sparked by the special competitive challenge with which they were presented by the European Union's single market policy – embodied in the 1989 Television Without Frontiers directive (see Kleinstaub 1990b; Burgelman & Pauwels 1992). Further studies, analysing the structural vulnerabilities and dependencies of small countries' media systems and the constraints on their media policies, remained thin on the ground (but see Trappel et al 1991; Meier and Trappel 1992). Since these early years of the single television market, there has been very little more work done on the subject. Now, suddenly, there is renewed interest. In 2009 a special issue of the *International Communication Gazette*, edited by Puppis and d'Heanens (2010), was devoted to the subject. It produced some highly interesting case studies on the current situation in Switzerland, Austria, and Portugal, and comparative case studies of the two language communities in Belgium, the Nordic states and the Baltic states, but clearly not all the chapters were comparative and none systematically compared small with large countries.

Small Among Giants is another edited collection but this time the contributions are explicitly comparative and contain large and small for comparison in their samples, which is most welcome. Edited by Ferrell Lowe and Nissen, the book reports the findings of a research project conducted by an international team of scholars from universities across Europe and North America, a good number of whom also have experience as practitioners in media and media policy making, which cer-

tainly shows in the quality of the insights they offer in their chapters. The team examined the small state perspective from a number of angles, including the media economics of small countries and the problem of comparatively limited resources; the structure and dynamics of the television industry; media policy and regulation; and the problems posed by the European Union's single television market. *Small Among Giants* confirms the particular problems faced by small states highlighted by earlier studies. It also carries an important message: arguing that the models and rules presented by larger countries - and the 'one size fits all' approach of the European Union - cannot be deemed appropriate for small countries.

The book is well structured. In the first chapter, Gregory Ferrell Lowe, Christian Edelvold Berg and Christian Nissen set the scene by discussing why size matters. This chapter reviews the literature on small countries as a specialised area of study, identifying features of particular relevance for the media environment and explaining the variables considered to be significant for analysis. The second and third chapters, respectively by Robert Picard and Christian Edelvold Berg, primarily provide economic analyses showing how size matters. Both chapters compare a large sample of countries, which range widely in terms of population size and wealth as measures of size, and both provide sophisticated analyses to demonstrate conclusively that size matters in terms of constraining the resources and capabilities of national broadcasters. Edelvold Berg's chapter also provides a number of particularly useful statistical tables and figures, confirming the relationships between population and economy size, market volume and the level of investment in home originated TV content. While both conclude that the same policies will not be equally effective in countries of different size, Edelvold Berg also shows that political intervention through public subsidy and public service broadcasting are crucial for securing domestic production in both large and small countries, though the degree of intervention has to be higher to compensate, in part at least, for small size.

The fourth chapter, by a research team led by John

Jackson, examines the socio-cultural context of media markets, comparing the implications of relative (rather than absolute) size for dependency relations between five small countries and the larger neighbours with which they share a major language, these being Austria (Germany), Canada (USA), Ireland (UK), New Zealand (Australia), and Taiwan (China). The chapter is very interesting in terms of its analytical approach, though the empirical treatment each case receives is short on detail. The chapter demonstrates commonalities between the cases arising from their economic and cultural dependencies and argues that there has been a shift in internal value orientations from contemporary liberal, welfare state orientations to classical liberal, neo-conservative orientations in these countries' media policies. However, the evidence provided for this shift is weak. For instance, in the case of Canada most of the empirical treatment is devoted to showing how – as in all the cases – media policy responses have traditionally been in significant part responses to 'intrusions from their neighbours'. However, the single paragraph referring to the generalisation about a shift in value orientation, while certainly pointing to the challenges to the distinctive Canadian 'cultural policy toolkit' (Grant and Woods 2004) arising from new technologies and globalisation, hardly demonstrates a significantly weakened commitment to it and overlooks completely the fact that Canada successfully opened up a new international front against liberalisation, which led to the signing of the international Convention on the Protection and Promotion of the Diversity of Cultural Expressions (UNESCO 2005).

The fifth chapter by Josef Trappel very neatly complements the preceding chapters by filling out the picture as to how small country size affects the actual broadcasters in terms of their capacities and room for manoeuvre. Echoing themes from his earlier (see above) and more recent (Trappel 2010) insightful work on the subject, this chapter provides an authoritative up-to-date account of the characteristic industry structures and dynamics in small countries, points to their if anything worsened circumstances and echoes the call of other contributors in the collection for adequate media policy measures. The sixth chapter by Nordahl Svendsen highlights the particular problems posed for small European countries by the European Union's (EU) audiovisual regulatory policy, particularly in connection with the operation of the 'country of origin principle' at the core of its 1989 single market directive, Television Without Frontiers (recently revised to cover new media) and its competition policy, while showing that Member States have failed to adequately fulfil the EU's protectionist European quotas. This chapter raises a familiarly common cry among many scholars against the perceived threat of the EU's competition policy. The fact that the European Commission's Communications (of 2001 and 2009) on the application of state aid rules to PSB contain a clause recognising small country difficulties, Nordahl Svendsen appears to dismiss as inconsequential. While the extent of threat to PSB posed by the European Commission authority has been persuasively contested as exaggerated (see Donders 2010), the

special problems posed to small countries by competition within the EU single market framework – including what Nordahl Svendsen calls the 'reflagging' of channels (though its extent is again perhaps rather exaggerated) – are undoubted.

Up to this point all the chapters in the collection have concluded that size matters. However, the following chapters interestingly depart from this clear-cut consensus, each reflecting their particular focus. The seventh chapter, by Chris Hanratty, focused on patterns of governance, investigates specifically the degree of *de jure* and *de facto* independence of public broadcasters *vis a vis* government and private broadcasters *vis a vis* dominant shareholders, and finds no significant variation between larger and smaller countries. The eighth chapter, by Tom Moring and Sebastian Godenhjelm, focused on broadcasting for minorities (an area on which the literature is even thinner than on small countries), and finds that while size clearly matters to some extent policy matters more. Regardless of size, the quality and extent of provision would appear to depend on a combination of public service broadcasting and political will. The final chapter, by Annette Hill and Jeanette Steemers, focused on the production and trade flows of entertainment formats provides a sophisticated analysis combining political economy and audience analysis to show that while size is clearly a constraint, it has not impeded some small countries from achieving remarkable success, notably the Netherlands and Sweden. The chapter is somewhat pessimistic about recent trends because globalisation has seen national ownership diminish, but overall it highlights a theme that emerges strongly from this very interesting edited collection but which might have been the subject of a special chapter in its own right, namely how political will and media policy makes a difference between similarly constrained small countries. The book is very well produced, but it is a pity that it does not provide an index.

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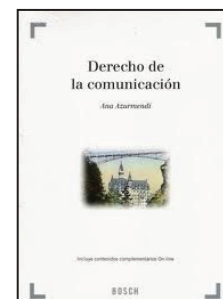
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AZURMENDI, A. *Derecho de la comunicación*. 1a ed. Barcelona: Ed. Bosch. 338 p.
ISBN: 978-84-9790-835-1

BY LLUÍS DE CARRERAS

Lawyer and lecturer in communication law at the Blanquerna Communication Faculty
- Universitat Ramon Llull and in journalism and audiovisual communication studies
at the Universitat Oberta de Catalunya



A manual that understands communication law beyond that related to the practice of journalism and the media

After twenty years teaching at the Communication Faculty of Universidad de Navarra, Doctor Ana Azurmendi is now offering us her new work *Derecho de la comunicación* with the aim of covering, in a single volume, the most significant elements of the different aspects that comprise information law, complemented by a look at the law governing the media and a last part dedicated to advertising law.

Doctor Azurmendi, a renowned specialist in these fields, has added this work to her extensive collection of publications, of particular note being *La reforma de la televisión pública española* (Tirant lo Blanch, 2007), *Derecho de la información. Guía jurídica para profesionales de la comunicación* (Eunsa, 2nd ed. 2001) and *El derecho a la propia imagen: su identidad y aproximación al derecho a la información* (Civitas, 1997).

Derecho de la comunicación is a descriptive book that is easy to read, not only by those interested in legal issues but also the layman, which is relevant if we remember that its potential readers include journalists, publicists and audiovisual communicators that need to know the legal rules governing their professional. And also students at communication faculties whose core subject is the series of areas dealt with by this book, which they can use as a text book or for consultation.

The book is divided into five parts, although the first three are closely related and make up what is known as *information law*. The fourth part is dedicated to studying the legal regime for the media and the fifth, advertising law.

The subject of information law is in turn divided into three parts which, apart from various doctrinal citations, also provides extensive jurisprudence from Spain's Supreme Court (TS in Spanish) and Constitutional Court (TC in Spanish), as well as the European Court of Human Rights (ECHR), the body created by the European Convention on Human Rights promoted in 1950 by the Council of Europe and which, since then, has made up a solid body of doctrine that has gradually standardised the

European conception of defence of fundamental rights.

The first part is dedicated to the fundamental rights in free speech and freedom of information, based on a generic recognition of these rights in article 20 of the Spanish Constitution (CE in Spanish), but developed conceptually and with doctrinal nuances provided by the Constitutional Court. Azurmendi notes the influence of the ECHR (for which she gives some references) on the doctrinal positions of Spain's highest court and even extends this to the jurisprudence of the Inter-American Court of Human Rights in the area of free speech. This part ends with a study of the right to rectification.

The second part analyses the constitutional limits (point 4 of article 20 of the CE) to free speech and freedom of information, such as the fundamental rights to honour, to personal and family privacy and to one's own image, as well as protecting young people and children from the media, both from a civil and penal point of view. It should be noted that the chapter on the right to privacy includes a study of the protection of personal data and, in the one on the protection of minors, not only are the key Spanish legal provisions analysed (Legal Protection of Minors Act and the General Act on Audiovisual Communication), but also the UN Convention on the Rights of the Child and regulations regarding specific issues (pornography, rating films and audiovisuals, advertising, etc.)

The third part examines the fundamental instrumental rights of journalists recognised in the EU (point *d* of section 1 of article 20), professional secrecy and the conscience clause; in the first case, the ECHR doctrine is provided on this area and, in the second, the jurisprudence of the TC. This third part also includes a chapter on the right to intellectual property of communication professionals. Based on European Directive 2001/29/EC on the harmonisation of certain aspects of copyright and related rights in the information society, Azurmendi comments extensively on the protection of these rights in the revised text of the Intellectual Property Act of 1996. She also briefly examines a highly relevant issue today, namely the circulation of works on the internet with *copy/left* authorisation (the opposite to traditional

copyright), which allows free access to and use of works under the conditions determined by each author according to the codes recognised in *Creative Commons* licences.

The fourth part is devoted to law governing the media, divided into three chapters. The first looks at the legal regulation of the internet, a truly problematic issue due to the difficulties of regulatory intervention in the internet. Azurmendi provides an overview of Directive 2000/31/EC, on electronic commerce, as a common European legal area; she then looks in more detail at the provisions established by Act 34/2002, on the information society and electronic commerce, the main text in Spanish law, and ends with an analysis of the civil and criminal liabilities that can result from violating these laws. The redefinition of public state television (Acts 17/2006 and 8/2009 on *Corporación RTVE*), an issue on which Doctor Azurmendi is an authority, and the new regulation for the legal regime of television in Spain regarding autonomous communities and private television (General Act 7/2010, on audiovisual communication) make up the second chapter in this part, which is particularly relevant given the recent enactment of these laws. The following chapter analyses the legal statutes for radio.

Finally, the book ends with a last part on advertising law, including the notable amendment provided by Act 29/2009, modifying the legal regime governing unfair competition and advertising to improve the protection of consumers and users, which has rationalised Spanish law in this area, eliminating contradictions and unifying regulatory duplication between the General Act on advertising and the Act on unfair competition with regard to the regime of actions against unlawful advertising, coherently integrating the legislation protecting consumers in regulating the market.

Derecho de la comunicación is a book with a structured, clear narrative that coherently systemises the different areas it deals with, as well as containing basic jurisprudence, Spanish and European, that has affected information law in terms of doctrine, applying to real cases the generic concepts employed by the Spanish Constitution to protect the fundamental rights of free speech and freedom of information, and their limits regarding the right to honour, privacy and own image. In short, it is a valuable contribution to the study of regulations governing communication carried out with a thoroughness that is typical of Azurmendi's work and is in addition to the manuals of similar characteristics that already exist, referenced below.

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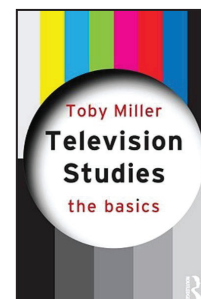
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MILLER, T. *Television Studies. The Basics*. London: Routledge, 2010, 254 p.
ISBN: 978-0-415-77424-6.

BY CONCEPCIÓN CASCAJOSA

Assistant lecturer in the Journalism and Audiovisual Communication Department
of Universidad Carlos III in Madrid



Television studies: the consolidation of an academic discipline

In 1974 Raymond Williams published *Television, Technology and Cultural Form*, whose influence is still being felt on communication studies at an international level and which established the fundamentals for the academic treatment of television. Almost four decades later, the discipline called *Television Studies* is in full expansion in the Anglo-Saxon sphere via a profusion of courses, degrees and postgraduate qualifications, all needing works to introduce a theoretical framework that is as fertile as it is sometimes diffuse. This is the category of the book by Toby Miller, *Television Studies. The Basics*. It is the latest addition to a list of introductory manuals that is not very long but already contains some outstanding works, such as *Critical Ideas in Television Studies* (Corner 1999), *Television Studies: The Key Concepts* (Casey et al. 2002 and 2007), *An Introduction to Television Studies* (Bignell 2004 and 2008) and *Tele-Visions: An Introduction to Studying Television* (Creeber 2006). Without counting more specialised works or anthologies of academic texts on this area, we can say that, in just ten years, theoretical work regarding the medium of television has grown substantially. But, precisely because of this, we no longer need to celebrate each new publication that contributes to expanding the discipline until we have appraised its true merits in advancing the state of the question.

Toby Miller is an academic with a singular career, with interdisciplinary training in history, political science, philosophy and communication. British by birth, he developed the first stage of his educational career in Australia, before moving in the 1990s to the United States, where he is currently professor and director of the Media and Cultural Studies department of University of California at Riverside. In 2002, Miller had edited one of the most outstanding reference works on the speciality, the British Film Institute publication entitled *Television Studies*, and his last publication was produced as a manual for the subject that, with the name of *Introduction to Television Studies*, he

has taught at the University of California for the last few years. *Television Studies: The Basics* dedicates its first few chapters to the four key aspects of the discipline: the history of television studies as a critical discourse, technology and TV institutions, genre as a basis for TV content and the methods to measure and interpret TV audiences. The work's didactic focus is clear to see: Miller is precise in his explanations, there are many examples and tables and each chapter ends with a specific bibliography and several questions in order to reflect on the issues dealt with.

Nevertheless, if this were the entire contribution of *Television Studies: The Basics*, its principal merits would be no more than to be written in a readily understandable style and to have the affordable and intellectually accessible format of a paperback. There is an underlying concern in the book which those studying the so-called *traditional media* cannot ignore: while some are still immersed in a process of establishing the traditional media as an object of study with academic legitimacy, the idea is already circulating that their days may be numbered due to the rise in new technologies. Miller proves, with data, that this is still a premature lucubration, at least for the moment and regarding television. But it's not so difficult to argue that television studies are in a complicated situation. In the first chapter of *Television Studies: The Basics*, the author proposes the existence of television studies 1.0 and television studies 2.0. The first (pp. 26-28) focus their attention on the effects of television on the lives of citizens and on the television policies developed by public powers and private capital. But for the second (pp. 28-30), television's omnipotence is replaced by that of the audience, with consumption as the main focus of attention and, often, of celebration. In the fifth and last chapter of the book, Miller transcends the instructive panorama employed up to this point and investigates, with a reflexive rather than didactic aim, the road ahead that can be glimpsed in a constantly changing context: television studies 3.0. Because of this, researchers should commit to a broader interdisciplinary approach than the mere idea of using theoretical frameworks

that are well established in different spheres. Working groups need to be set up that combine different nationalities and languages and that also dare to apply the already known methods to new objects. But, above all, television studies 3.0 require research to carry out a radical contextualisation that takes into account the circumstances in which television text is produced, circulates and is consumed. Only then can we understand that the life of a television text is a conduit through space and time that is continually being reconfigured by institutions, discourses and distribution and reception practices (p. 148). Institutions, text and reception can no longer be understood or studied from separate spheres with the excuse of methodological thoroughness: news discourse depends both on the ups and downs of geopolitics as well as the operational routines of the large channels.

Finally, Toby Miller's book deserves to stand out because it develops a panorama of television theory that is global in scope, not only in terms of content but also practice. The reluctance of Anglo-Saxon academics to resort to bibliographies in languages other than English is already notorious, which in practice means that a notable part of international academic bibliography is unknown to them. And in the context of the social media, this is quite a substantial part, leaving out the recent contributions made in Latin America. Miller enriches his text with contributions from a new generation of theorists, including the Brazilian César Bolaño (2000) and the Argentinians Luis Albornoz (2000) and Mirta Varela (2005) but also the Italian Milly Buonanno (1994). The dominance of the local in the work of researchers dedicated to analysing the media and television in particular might explain why practically no key work on television studies has been translated into Spanish. Although *Television Studies: The Basics* is presented as a manual, it makes its own theoretical contributions which are of considerable interest. It would therefore be desirable for this book to enjoy better fortune and thereby alleviate the situation of educators who identify with a discipline such as television studies, which is lacking many of the fundamental texts in Spanish.

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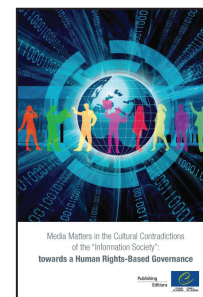
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FRAU-MEIGS, D. *Media matters in the cultural contradictions of the "information society" – Towards a human rights-based governance*. Estrasburg: Council of Europe Publishing, 2011, 390 pages.

BY LORETO CORREDOIRA

Tenured lecturer in information law at Universidad Complutense in Madrid

loretoc@ccinf.ucm.es



Human rights as indicators of the quality of information society governance

The author of this book, Divina Frau-Meigs, lecturer in media sociology at Université Sorbonne Nouvelle, and experienced in international forums, associations such as IAMCR and ECREA (of which she is currently the Vice President), starts from the paradigm provided by the World Summit on the Information Society (WSIS) promoted by the UN (2001-2005). Frau-Meigs, who took part in the WSIS, analyses the results of the 10 lines of action proposed, as well as the works produced by the Internet Governance Forum (IGF), which has also been closely followed by myself, as an example of the cultural contradictions of the "information society".

This book is of interest to all those studying public communication, information policies, communication ethics and law. It can also provide an important focus for sociology and e-democracy as it tackles the issue of internet activism, so important in this decade of the 21st century.

One of the dominant questions in the current debate concerns the authorities that have to deal with this society, as well as which regulations will be established in the economy and culture. Frau-Meigs also theorises about postmodernism and how the postulates of Daniel Bell in the 1960s might be used today, or not, as catalysts for this IS (*information society*), which she places within the so-called "cyberist moment" (p. 14).

Characteristic of this moment is the change or mutation of "cultural goods" into "cultural services". In fact, the 2007 Audiovisual Media Services Directive (AVMSD) certainly opts for the concept of *services* rather than *goods*. This leads to a basic change in the critical perspective of researchers into the economy of communication (such as Greffle and Sonnac), as they believe that we are seeing the emergence of a new *metasector*, not only in the classic sense of *media* or *infomedia* but rather *converging digital industries*, including both Google and entertainment content providers. These would include culture and media industries (CMI) and their transformation

into information and communication industries due to the great influx from the internet sector, telecommunications and machinery production.

The book's main thesis is that ICTs provide a great opportunity to improve human rights, not only regarding the access and right to information but also education, dialogue and participation, requiring greater commitment from governments and more responsibility from the private sector and civil society. This entails widening the very concept of "governance", as this is no longer simply the administration of domains or IP names but all the rights and relations of the information society which is, by definition, international.

To achieve this aim, the author looks to articles 18 and 19 of the Universal Declaration of Human Rights that might support this perspective and suggests that another article should be added to the 1948 Declaration, which would be the 31st, that includes issues such as the right to the internet, the protection of identity and online memory, net neutrality, interoperability, dignity and the borderline universal nature of these rights, among other aspects.

The following are among the conclusions and proposals made by extending internet governance:

- Avoiding the techno discourse that evades personal rights
- Granting a central role to the media from a social and cognitive point of view
- Distinguishing the various content and media plans on the internet: free, open or public, so as not to confuse the principles applicable to each one
- Modulating the information society and concentrating more on media education (p. 358), including students and teachers and promoting their training as crucial to participation.

In fact, the book ends with a chapter on education and the media. Its proposal is that media literacy should be tackled from the perspective of human rights but without using them to justify one point of view or another. Challenges such as educating young immigrants in ICTs or studying how young people

perceive regulation are some of its concerns.

It coins the term *u-Literacy*, referring to the ubiquitous nature of the internet and telephones. It supports measures such as the US government's *i-rate*, which is the universal service fund donated to colleges and libraries.

It finally concludes by stating that the only possible global governance model is one that includes co-regulation, where *soft law* must be included, a term already incorporated into other areas of law, which requires consensus and principles (as both UNESCO and the ICANN are already attempting to do) without getting rid of the pre-existing aspects but relying on the responsibility of all actors in civil society.

Frau-Meigs's view is highly optimistic or within the realms of "should be". For example, a more in-depth critique is missing of the effectiveness of the self-regulation agreements and pacts that have already been adopted by international bodies, such as the *Optional Protocol to the Convention of the Rights of the Child on the Sale of Children, Child Prostitution and Child Pornography* (UN 2002), which did not secure the approval of all member states on an issue of apparent consensus.

The book has ten chapters and an appendix with a list of recommendations and decisions by the Council of Europe regarding the issues covered by the book. There are other authors that have worked along these lines in the 1990s, when the ICANN was presented as a model of governance. Now this proposal does not seem enough because it's too technical. This point has been (and is being) studied by different stakeholders and the author is undoubtedly representing a specific sector of civil society.

Authors are not included from the North American area, such as Michael Fromkin, or from the Spanish sphere, of note being Manuel Desantes, Javier Cremades, Lorenzo Cotino and Pedro de Miguel Asensio.

EBBRECHT, T. *Geschichtsbilder im medialen Gedächtnis. Filmische Narrationen des Holocaust*. Bielefeld: Transcript, 2011, 351 pàg. ISBN: 978-3-8376-1671-2

BY **STEFANIE ARMBRUSTER**

Research Fellow at the Universitat Autònoma de Barcelona and Member of GRISS (Grup de Recerca en Imatge, So i Síntesi)



Media Representations of the Holocaust: Effect without confrontation

The representation of the past is a central component of our media landscape. History is the subject matter of documentaries, television fiction, or motion pictures. Advertisement is infused with bygone images. Even reality formats on television deal with historical issues. This fact has been long debated among scholars, among which we can distinguish two groups (see e.g. Baer 2001): On the one hand, the optimists, those who highlight the general constructedness of historical accounts and see media representations of history as a way to retrieve the past back for reflection. On the other hand, the pessimists, with their most important agents among scholars of the Frankfurt School, who hold that media representations of history prevent any critical confrontation with the past. The “paradigmatic example of limitations and imperatives to representational practice” (ibid., p. 491) is the representation of the Holocaust. It “has become a contemporary battlefield regarding the legitimacy and propriety of mass media products” (ibid.).

The reviewed book “Geschichtsbilder im medialen Gedächtnis. Filmische Narrationen des Holocaust”¹, written by the film history scholar Tobias Ebbrecht and recently (February 2011) published in the German publication ‘Transcript’, is well informed by this discussion. However, its author, a research associate at the Bauhaus-University of Weimar and postdoctoral student on the Graduate Research Program “Media Historiographies”, goes one step further. On the basis of the observation that media representations long since include the Holocaust (p. 17), he focuses on the characteristics of existing representations in film and television and their impact on our understanding of history.

Ebbrecht’s main thesis is that contemporary representations of the Holocaust in film and television refer increasingly less to the ‘historical truth’ (p. 12). As he states in a recent article, “historical images we derived from the Holocaust and its immediate aftermath are continuously dissociated from their historical origins” (Ebbrecht 2010, p. 86). Hence a dominant strand

in recent German film production decontextualizes the fund of images and narratives in order to depict Germans as victims of the Nazis and the war (p. 19) – a development which Ebbrecht also sees reflected in the transgenerational transmission of memory in Germany (p. 21).

The author investigates this matter of fact in seven comprehensive chapters. The first two chapters are therefore dedicated to the theoretical foundation. Three aspects should be highlighted here: First, writings on the transgenerational exchange of memory in the form of closed narrations (pp. 68 ff.); second, concepts of stereotypes in film (see e.g. Schweinitz 2006, p. 80); and third, Hirsch’s concept of postmemory – an approach which addresses spectators as “witnesses by adoption” (Hartman in Hirsch 2001, p. 221) and which opens up a perspective of possible ‘transmissions’ of memory (pp. 75 ff.). The depth of Ebbrecht’s work emerges from a combination of these concepts, which serves him not only as a basis in order to analyze the canon of repeating and migrating images of the Holocaust but also to delimit issues of cultural memory.

Put into practice, the following chapters present a detailed investigation of the modes of representation. Hence a first part on *Monumente der Erinnerung* [Monuments of Memory] highlights photographs and films from the time of National Socialism and the liberation of the concentration camps as the corpus of images which is supposed to have migrated in later media representations of the Holocaust (p. 88). Current migration processes are in the centre of the second part of the analysis, consisting of three chapters on contemporary feature films and television movies about the Holocaust and focusing on the layers of narration, visual structure and characters. In each chapter, Ebbrecht discovers the general characteristics and follows the traces of visual and narrative predecessors. A corresponding case study transfers this to the German context.

One of Ebbrecht’s central examples regarding the international perspective, also a ‘classical’ one within the scientific discourse in general, is the film *Schindler’s List* (1993). As the author shows, the film combines various references such as

those to historical photographs up to Resnais's *Nuit et Brouillard* (1955) or Lanzmann's *Shoah* (1985) (pp. 183 ff.). However, claims Ebbrecht, in presenting its intertextual structure in a closed narration, the film 'transfers *Erinnerungsbilder* [images of remembrance] into stereotyped *Geschichtsbilder* [images of history]' (p. 189). Its constructiveness remains hidden behind its form (p. 136).

Recent German productions such as *Das Wunder von Bern* (2003) or *Dresden* (2006) are investigated against the background of these observations. In so doing, Ebbrecht is able to demonstrate that falling back on similar strategies, this strand of films, in contrast to other likewise recent German productions such as *Die Fälscher* (2007) or *Am Ende kommen Touristen* (2007), reinterprets and decontextualizes representations and iconic images of the Holocaust in order to construct histories which harmonize generational conflicts, victimize the Germans and highlight German ordeal (p. 161 ff.). As he puts it in another recent article on the topic: "The universalized iconography and language of Holocaust representation and commemoration enable German post-war culture to merge the two fundamentally different perspectives of Jews in the Holocaust and Germans in the war" (Ebbrecht 2010, p. 98).

A concluding chapter shows that these observations are not only relevant in a German context. According to the author, similar changes of perspective can be observed at a European level – namely in the form of a development that Ebbrecht describes as the 'harmonization of opposing memories' (p. 318). Apart from that, Ebbrecht goes beyond the scope of his study, showing that iconic images of the Holocaust have long since migrated into other contexts such as the representation of contemporary conflicts (p. 322) (for further reading on this subject, see also Ebbrecht 2010).

An analysis such as the one by Ebbrecht does not prevent such developments but, instead of falling prey to pessimism, breaks the cycle of those repeating images which remain hidden behind closed forms, opening this up to critical reflection, and widening the perspectives for future investigations. To sum up, and as demonstrated, "Geschichtsbilder im medialen Gedächtnis. Filmische Narrationen des Holocaust" offers a comprehensive study of the characteristics of media representations of the Holocaust and their impact on collective memories in a German context and beyond. With an impressive archaeological thoroughness, the author explains the origins of the factual images and traces back intertextual references in contemporary films. By combining different approaches, Ebbrecht's study gains a great density of analytical insights and is able to extend perspectives. In so doing, the book is recommendable both for those who have only recently started to deal with the subject and for those who want to extend their depth of knowledge. The publication may be an inspiration for subsequent investigations in the field, for instance within the context of Spanish contemporary history.

Notes

1. "Images of history in media memory. Narratives of the Holocaust in Film" [Author's translation].

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BY **JOSÉ ALBERTO GARCÍA AVILÉS**

Lecturer at Universidad Miguel Hernández in Elche



In search of lost quality

Quality on television constitutes a broad, heterogeneous concept that covers numerous proposals and constituent elements. There are some quality standards for popular entertainment, others for news, as well as a quality for reality shows and fiction. Since television, as the main socialising agent, has a great capacity to influence the political, human, social and cultural education of citizens, it seems logical to demand that, by means of programming variety and quality, it help to add a certain degree of training in the access to knowledge in society (Medina 2006). This function is not only the responsibility of public-funded television but is inseparably linked to the activity carried out by any kind of television (Ojer 2009).

This choral work, coordinated by Miquel Francés, relates the discourse regarding the quality of a programme with that of the television system, as well as the differences between public and private television, generalist and thematic. And, in the classic line of Ishikawa (1996), asks a fundamental question: should the study of quality be tackled from the sphere of efficacy, technology, aesthetics or ethics? Professor Francés is one of the greatest experts in documentary production (2003) and television formats in Spain, as well as the new audiovisual ecology (2009). His work in directing this volume has become an exercise of diagnosis and provocation regarding the contradictions of today's audiovisual ecosystem in Spain that lies behind the equilibrium between three broad aspects: the level of programmes offered by channels, professional production standards and programming strategies.

The book contains a dozen articles, the result of presentations at the 3rd CONTD Seminar – Content for Digital Television – which is held every year by Valencia University. This is not a mere compilation of talks but an evident attempt to offer a connecting thread and underlying argument, divided into four large sections: the regulatory framework and audiovisual system; quality content; digitalisation and content convergence; and production in the new television windows.

After the regulatory framework of the sector, which is presented impeccably by Jose María Vidal, from Universitat de València, Professor Enrique Bustamante laments the promises of quality and the growing poor quality of today's television content, at the same time as criticising “the Administration's total inhibition regarding market drift” (p. 59). The debate raised by the professor of the Universidad Complutense de Madrid is opportune and constitutes one of the book's great contributions. In an increasingly competitive audiovisual ecosystem, the industry's regulation is problematic, given the fear that intervention might become a hidden form of censorship, subject to arbitrariness or party-related ends. Nevertheless, it seems necessary to promote forms of regulation and self-regulation in order to stop market forces from taking over.

Emili Prado, professor of audiovisual communication at the Universitat Autònoma de Barcelona, together with other lecturers belonging to the GRISS research group and the Euromonitor observatory, carries out a comparative analysis of the digital TV genres in Europe. His study reveals that the weight of public service has diminished and now accounts for little more than a third of the television on offer, compared with the 65% provided by private channels. This change in proportion has consequences in the area of content, with the predominance of three broad macrogenres: news, fiction and infoshows. Also relevant is his view of the most innovative programming strategies and the instruments required to fulfil the medium's public service mission.

Àlvar Peris, from Universitat de València, confirms the growing dynamism in the production of audiovisual content for the internet and mobiles, surpassing the deterministic discourses of technology and tackling narrative and aesthetic possibilities. Rosa Franquet, professor from the Universitat Autònoma de Barcelona, explores various experiences of the Catalan Audiovisual Media Corporation, of the Spanish RTVE and the BBC in the area of cross media content, with media convergence strategies. Referring to this, Hipólito Vivar, from the Universidad Complutense de Madrid, investigates the added value services

provided to users by connecting television and the internet. Germán Llorca, from Valencia University, describes the panorama of *crowd funding*, a new initiative to finance and create audiovisual content. Finally, Ángel García Castillejo, a member of the Telecommunications Market Commission, traces the evolution of the paid-for audiovisual service market.

Nevertheless, this volume remains halfway between a precise diagnosis of the formulas to produce laudable programmes and a pragmatic proposal capable of combining interest, profitability and originality in programming. It needs to be more specific when analysing the overworked factors that constitute quality to go beyond the usual conceptual analyses, so far removed from professional practices and often inclined towards theoretical visions without tested verification.

These pages criticise the “tyranny of audiences” as a method to measure TV quality. This perspective, usually defended by private broadcasters more than TV viewers themselves, tends to consider any alternative definition as the result of intellectual, political or academic interest. In this way, it seems that the requirement to achieve quality television consists of not setting any limits, not even through programming. The problem is that there is no measurable relationship between the quality of a programme and the size of its audience: numerous studies reveal that TV viewers habitually do not choose the programme they believe to be the best quality but the most spectacular, the one that doesn't bore them or the one that requires the least effort (Artero et al. 2010). Often, those responsible for channels have acted without taking into account the long-term effect (both in terms of the prestige of their brands as well as for society) of programming content close to TV trash (Sánchez-Tabernero 2008). Thanks to this approach, the audience rating dictatorship distances from programming any content that involves a risk due to its level of innovation or because it requires time for the audience to assimilate it until it achieves the predicted share.

The book will please those studying television and professionals who wish to know the implications of multiplatform production, as well as those who are looking for an insight into the strengths and weaknesses of the audiovisual industry in our country.

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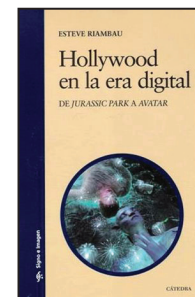
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BY JOSÉ LUIS SÁNCHEZ NORIEGA

Lecturer in the history of cinema - Universidad Complutense de Madrid



From cinema stalls to multimedia experience

We have spent some time reading pressing articles, interviews and all kinds of reflections (some improvised, others more thought through, some more intuitive) that diagnose a time of radical change in the history of cinema taking place right now due to the mutations being experienced in terms of the industry, technology and exhibition. In effect, today we are faced with the fact that cinema companies form part of large media groups that bring together information and entertainment (infotainment), that the computer revolution has changed how images are created, assembled, stored, distributed and exhibited and (the definitive fact) that films are no longer seen principally in cinemas, as different channels and other media have proliferated. Together with the emergence of talkies (1927-1930) and the transformations of new cinemas (1959-1965), today we can consider that a great change is taking place in the history of cinema that still needs more time due to its size but which we can date back, as Esteve Rimbau does in his book, to a time between the films of *Jurassic Park* (1993) and *Avatar* (2009). Although it's true that, during these fifteen years, we can identify events of a diverse nature, and that some factors of this big change, such as electronic cinema or the reformulation of genres, actually started in the 1980s.

The very precise title indicates a place (Hollywood, not even all North American films) to underline the fact that it refers mostly to commercial cinema with a hundred year tradition in the Californian industry; and to an era characterised by an expression ("digital era") that the reader should conceive beyond its initial meaning referring to data compression technology applied to audiovisuals, covering a series of broader phenomena. Studying mass cinema during this period of change is an appropriate and more than interesting task, albeit a little hasty insofar as we lack perspective for such an analysis: ultimately, we need to wait a couple of decades to see whether *Avatar* has been the start of a new audiovisual format or a failed attempt to reanimate the defunct 3D to combat piracy. Luckily, professor

Rimbau is an accredited specialist with an already wide bibliography (with monographs on Resnais, Chaplin, Costa-Gavras, Coppola, Kubrick, etc.), of particular note being his exhaustive studies on Orson Welles in Spain, the biography of Ricardo Muñoz Suay and essays on French cinema (1958-1998) and, in collaboration with Casimiro Torreiro, on the Barcelona School. It's only fair to point out his track record in order to take note of the credentials with which this history of today's Hollywood is being tackled.

Rimbau's work is intelligent, precise, considered and, albeit provisionally, offers an excellent panorama of contemporary mass cinema, deciphering its lines of force, those features that give it identity. It's not all cinema today and we must also remember that it's not the most innovative artistically nor the most fascinating intellectually, that's why *Hollywood en l'era digital* is recommendable complementary reading for, in my opinion, the best study of the aesthetic renovation of that era: *Cine e imaginarios sociales. El cine posmoderno como experiencia de los límites (1990-2010)*, by Gérard Imbert (Madrid, Càtedra, 2010). The latter deals with non-Californian films, principally the emerging figures of Asian and European cinema. But there are some common links (an analysis of works by Gus van Sant, Tim Burton, David Fincher) that relate one text to the other.

Rimbau's work is structured into a first chapter on the current studio system, explaining the Hollywood film industry, and seven chapters on different lines or features that might characterise this commercial cinema of the digital era, based on technological or aesthetic innovations as well as on themes, archetypes, genre reformulations, etc. Aware that, when all is said and done, talking about cinema is talking about films and that what serves the reader best are filmographic analyses rather than lucubrations or sociological digressions, the author focuses on the fifty significant, symptomatic films of the dominant trends of this contemporary cinema (what some now unremittingly call *mainstream*). These analyses are thorough and intellectually insightful, revealing a creative cultural

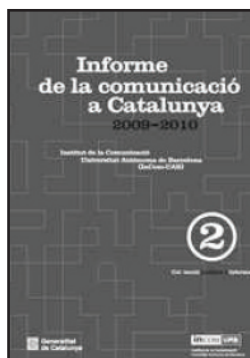
contextualisation and extensive knowledge of the history of cinema, something which not only makes them a model for reflection on the films that should help the reader/viewer in his or her own learning but also turns them into the pieces of the mosaic that go to make up this fundamental chapter to the history of Hollywood cinema in the digital era.

This cinema occurs within the industrial framework (chapter 1) of large multimedia groups that facilitate synergies and encourage global marketing via franchises or fashions that are fed by television series, theme parks, videogames and comics, so that the films are set within a production framework that goes beyond the individual film and the vehicle of cinema *per se*. It is therefore not surprising (beyond the traditional adaptations of literature in cinema) to see the proliferation of crossovers between television, comics, videogames and/or creation using various media (ch. 3). The digital revolution does not only lead to drastic transformations in the industry (ch.2) but also opens the doors to new aesthetics or new formulations of reality; for good reason a key feature of this kind of cinema is the rewriting of old films (ch. 6) or the revamping of classic adventures via new heroes (ch. 7). That's why it can be said that "Reality in contemporary cinema is always subsidiary to an image that, in addition to reproducing it (as done earlier), transforms it, subverts it and even ignores it to generate a new entity converted into a simulation of what is real" (p. 18).

In some way this new entity breaks the radical dichotomy of reality/fiction to blur the boundary, advocating intermediate states, strengthening the rhetoric of *mise en abîme* and calling dualism into question, whatever it's called (real/imaginary, actual/potential...), proposing the representation of parallel universes of a diverse nature, as Riambau explains very well in his splendid chapter 9 with an analysis of *Memento*, *Adaptation*, *Inland Empire*, *Minority Report*, *The Matrix*, etc., in which this seems to be the most singular feature of this digital era cinema. Lastly, we should also note his reflection on the language of this cinema (ch. 4), much more diverse than appears at first sight, and the reformulation of genres (ch. 5) carried out by some films with great impact (*Titanic*, *Forrest Gump*, *Blair Witch Project*...) and that allow us to talk sometimes of postmodern cinema and other times of post-classical cinema. As the reader will have deduced, *Hollywood en la era digital* is an excellent, apposite approach to contemporary cinema that deciphers its identity from various angles, contributing greatly to such study.

Books review

MORAGAS, M.; CIVIL, M.; FERNÁNDEZ, I.; BLASCO, J. J.; LÓPEZ, B. *Informe de la comunicació a Catalunya*. Barcelona: Generalitat de Catalunya. Colección Lexikon, 2011, 407 pages. ISSN: 2014-2773



Sixth edition of the biennial study produced by the *Institut de la Comunicació* of the Universitat Autònoma de Barcelona (InCom-UAB), corresponding to the period 2009-2010 and whose aim is to describe and analyse the different sectors of Catalan communication and to become a support tool for researchers, professionals and those responsible for communication policies. This reference work in the

area of Catalan communication is a collective volume edited by Miquel de Moragas, Marta Civil, Isabel Fernández, José Joaquín Blasco and Bernat López, which maintains the same structure as previous editions with three different large sections. The first, “La situació dels mitjans” [The situation of the media], is made up of 12 chapters and analyses the situation of various broadcast media (press, radio, television and cinema), non-broadcast media (“cultural industries of discontinuous publication”) and several issues across the board that affect the Catalan communication system as a whole (communication policies, communication groups, internet and telecommunications), as well as dealing with two specific points of local communication and language. The 12 chapters of the second section, “Prospectiva en comunicació. Grans tendències” [Communication prospects. Great trends], has a more essay-based focus and delves further into the most characteristic features of the communication industry during the two years analysed (2009-2010): the economic crisis and accelerated technological transformation with new multiplatform formats and particular emphasis on citizen participation. Finally, the third section, “Estudis i recerca” [Studies and research] outlines, in three chapters, the state of communication research and studies in Catalonia with the commencement of the so-called Bologna Plan. Of note among the Report’s conclusions is, on the one hand, how the economic crisis, which is also affecting the media, is reducing news quality and, on the other, the widespread increase in demand for information, communication and culture. The Report also highlights the growing use of Catalan on the internet, showing the important contribution of the *catosphere* to the normalisation of Catalan. Among the challenges for future communication policies, the Report notes that the imbalance must be corrected between increasing supply (without increasing production resources) and the rise in demand.

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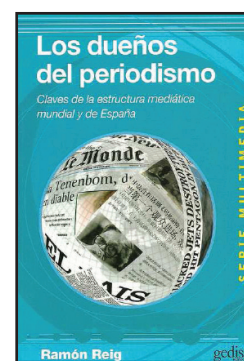
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REIG, R. *Los dueños del periodismo. Claves de la estructura mediática mundial y de España*.

Barcelona: Editorial Gedisa, 2011, 311 pages.

ISBN: 978-84-9784-618-9

The director of the Journalism Department II at Universidad de Sevilla, Ramón Reig, presents his latest work on the structure of communication that, as he describes it himself in the introduction to the volume, is a complement to his previous book, *La telaraña mediática* (2010). The author does not aim to list and detail the balance sheets of companies but to relate and investigate what is hidden behind business dynamics, especially the relations of these news firms with other sectors unrelated to communication. Divided into five blocks, the first section provides an introduction to the theory and method used and defends a structural focus. Reig then offers an introduction to the structure of world news, describes the main communication groups and the power relations behind the world’s media systems, particularly mentioning alternative media, in which the author includes the Arab channel Al-Jazeera TV. He points out that the triad (United States, Japan and Europe) do not only reign supreme in the world’s financial and media system but that their economic model is also being imitated by emerging countries (China, India, Brazil and Russia). The author underlines that the most important thing is not the presence of conglomerates and large media groups but rather the alliances between them. The third part of the book is dedicated to Latin America and the fourth to emerging countries: China, Russia and India. Most of the volume focuses entirely on the case of Spain. Reig describes the characteristics of the main groups, the connections between Spanish groups and other non-Spanish groups and carries out a detailed sector analysis (publishing and press, the configuration of the audiovisual structure of news, internet and advertising). In this analysis, the author highlights the importance of printed media to understanding Spain’s media structure and the importance of Spanish banks in this structure. The author concludes by stating that it is not scientifically correct to talk of a Spanish “news structure” because foreign capital is also present in this structure.



SCOTT, M. *Guía para radios y televisiones. Sobre la promoción del contenido generado por el usuario y la alfabetización mediática e informacional*. Barcelona: Editorial UOC, 2011, 125 pages. ISBN: 978-84-9788-442-6



These guidelines, produced by Martin Scott and commissioned by Unesco, were translated and adapted by the Communication and Education Office of the Universitat Autònoma de Barcelona (UAB) from the original entitled *Guidelines for Broadcasters on Promoting User-generated Content and Media and Information Literacy*. It is a short, easy to use document that becomes

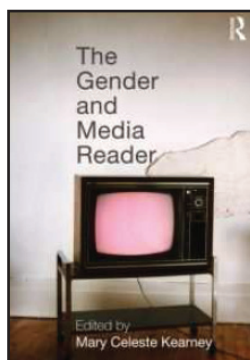
a useful and suitable reference for radio and television companies, as well as for their audiences. Its objective is to promote media education among television and radio audiences and also to motivate citizen journalism. As described in the introduction, the guide aims to provide assistance to broadcasters to better meet the changing needs of audiences and the media industry. The main part of the volume starts by defining the two concepts around which this document revolves: user-generated content (UGC) or citizen journalism and the concept of media and information literacy (MIL). It also deals with the potential benefits and hazards of promoting media and information literacy among citizens and society, the type and treatment of user-generated content, the profile of those people who collaborate with content in the media, the situations and conditions that stop an audience from participating (the digital divide, lack of technological skills and knowledge, psychological explanations), promoting media and information literacy, user-generated content in formal and informal education, and partnerships with community media and other local organisations. The *Guidelines* also contain a section of advice on how to get the most out of technology. The volume is complemented with research carried out by a group of researchers from the Communication and Education Office regarding how Latin American TV channels use user-generated content, proposing four recommendations: systemising and enriching the different channels that allow audience participation, establishing a protocol and legal framework to encourage participation, creating links between communities and channels and establishing bridges between children, families and educators. The volume concludes with a glossary of terms of interest, such as *narrativa digital* [digital narrative], *contingut cooperatiu* [cooperative content], *periodisme interactiu* [interactive journalism] and *tallers comunitaris* [community workshops].

STROUD, N.J. *Niche News. The Politics of News Choice*. New York: Oxford University Press, 2011, 257 pages. ISBN: 978-0-19-975551-6



In *Niche News*, Natalie J. Stroud investigates how people navigate among the wide range of news programmes on offer and the political implications of their choices. Three questions form the basis of this volume: to what extent do citizens' political beliefs guide their choice of news? What leads citizens to choose news based on their political beliefs? And what are the consequences of partisan selective exposure? The book looks at the extent to which partisanship influences media choices. At the heart of this volume is the concept of *partisan selective exposure*, a behaviour that leads individuals to select news sources that agree with their own opinions and that helps to explain how political forces behind media consumption work. The author finds that selective exposure influences how citizens engage with politics in general: citizens can become more divided as a result of using media akin to their political beliefs but, on the other hand, partisan selective exposure can encourage participation. Stroud also points out the connection between the media and the world of politics, a connection with significant implications for the practice of democracy. The volume is divided into seven blocks. It starts with an introductory chapter about partisanship in the news. Chapter two lays the foundations to examine partisan selective exposure. It then explores the extent to which partisan selective exposure takes place and suggests that people use media with similar political information. Chapter four evaluates how media news is perceived and considers what leads citizens to form an impression regarding partisanship in the media. Chapter five investigates whether selective exposure affects or is affected by party participation, a commitment to vote for a candidate and political polarisation. Chapter six deals with the notion of *agenda setting* and explores whether partisan selective exposure influences citizens' priorities. Finally, the book returns to the questions regarding the implications of a partisan use of news, both in terms of future research and for the progress of democracy.

KEARNEY, M. C. (ed.). *The Gender and Media Reader*. Londres [United Kingdom]: Taylor & Francis Group, 2011, 512 pages. ISBN: 978-0415993463

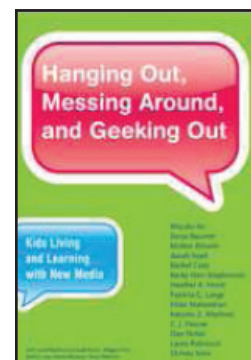


This volume represents the first exhaustive, interdisciplinary anthology of the most renowned and influential writings about gender and media studies. This is an essential text for those interested in how gender and media studies have evolved, the most current debates and theoretical approaches. With Kearney as editor, the book examines media culture not only by analysing women and

femaleness but also men and maleness, as well as making room for other identities that interact with gender, particularly race and sexuality. Gender is explored through a variety of converging media, including videos, music, radio, magazines, advertising, music videos, videogames and the internet. The volume's main aim is to provide readers with knowledge of how gender operates within a media culture by reading classic texts as well as contemporary studies. Starting with a multi-perspective approach that considers gender in very wide terms and examines media texts through their production and consumption, the volume provides readers with a critical reflection of how gender is constructed and questioned in media culture. The volume is divided into five sections. The first is an introduction to the relationship between gender and the media. Of note is the article by Liesbet van Zoonen, presenting different feminist perspectives on the media, as well as the classic text by Gaye Tuchman on the symbolic annihilation of women by the mass media and the contribution by Judith Butler with the theory of performativity. The second section deals with production aspects. Of note in the next block, on identities and representation, is the article by Annabelle Mooney on the normalisation of pornography and an article on the invisibility of lesbianism in the media. The fourth section focuses on narrative strategies, such as reality TV and beauty pageants, and their relationship with post-feminism, with an interesting article by Henry on wrestling programmes, considered to be masculine melodrama. The last section deals with media consumption, of note being the article by the feminist bell hooks on black female spectators.

ITO, M.; BAUMER, S.; BITTANTI, M. et al. *Hanging Out, Messing Around, and Geeking Out: Kids Living and Learning with New Media*. The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning: The MIT Press, 2010, 432 pages. ISBN: 978-0-262-01336-9

This volume forms part of the series from the MacArthur Foundation on the relationship between new tools, digital networks and new forms of learning. The first chapter, "Media Ecologies", is framed in the technological and social context in which young people consume, share and produce new media. This chapter introduces a map of where research and data gathering methods took



place, as well as collaborative analysis. It also presents the three genres of new media participation, which are an alternative to the traditional ways of categorising how the media are accessed: hanging out, messing around and geeking out. The next two chapters focus on friendship practices on social networks (how teenagers use instant messaging, social networks and mobile phones to negotiate friendship or the concept of intimacy). The fourth chapter, "Families", describes how parents and children negotiate media access and participation by using the physical space of the home, routines, rules and shared production and play. This chapter also examines how the limits of the home and of the family are extended by using new media. The fifth chapter, "Gaming", examines the different gaming practices: killing time, recreational and addictive, among others. The aim of this part is to examine games in a social context with different learning outcomes. Chapter six deals with creative production and analyses the different case studies of youth production, including podcasting, videoblogging, video remix, hip-hop production, fan fiction and fansubbing. The last chapter, "Work", examines how young people take part in economic activities and other forms of production using new media. The chapter suggests that new media provide channels to make what young people produce more visible, either via online publication, freelancing or the various forms of nonmarket work. In the conclusions, parents, educators and policymakers discuss the implications of this research.

Version available online:

<http://mitpress.mit.edu/books/full_pdfs/Hanging_Out.pdf>

Journals review

TELOS: Cuadernos de Comunicación, Tecnología y Sociedad
Madrid: Editorial Fundesco. No. 88, July-September
2011. ISSN: 0213-084X



TELOS dedicates the monograph of this issue to digital culture. In its central *Dossier* we find an interesting introduction by Enrique Bustamante to the old and new culture, where new culture is not merely a prolongation of analogue culture. Among other articles, of note is the one by Lacasa and Villalonga on the digitalisation of opera with the proliferation of its secondary products (cinema, DVD, internet and television) and tertiary products (fragments), which stand out without diminishing the greatness of the genre. De Vicente Gómez looks at digitalisation's contribution to the plastic arts. García Cantero foresees the inevitable paths of cyberculture, imposing a transformation on the public's new artistic and cultural realities. Ramón Zallo also collaborates in this dossier by outlining the paradoxes of digital culture, highlighting the contrast between the opportunities offered by digital technology and the incapacity of the political and economic system to support them. As a guest author, Martín Becerra, a researcher from Quilmes University (Buenos Aires, Argentina), proposes the problem of "incubating a new digital culture in Latin America" and how technological convergence is constructing a new culture, both in terms of supply and social use. On the other hand, Pilar Carreras critically contextualises the new interactive practices of social network users with communication theories. And Anton Planells compares the languages of primitive cinema and the initial development of videogames in the 1970s. In the *Análisis* section we find an article by Juan José Muñoz, analysing Spanish law regulating the classification of feature films by age group. Manuel Armenteros analyses 3D stereoscope technology and reveals videogames and the internet as key elements in the future of the image. Finally, in the *Experiencias* section, a group of researchers from the Universidad Rey Juan Carlos analyses the self-regulation of communication, taking as their focus of analysis the experience of advertising (specifically baby food), highlighting the virtues of the doctrine and the practice of self-regulation, its European framework and adaptation to the Spanish case.

Derecho a Comunicar

México D. F., México: Asociación Mexicana de Derecho a la Información. No. 2, May-August 2011
ISSN: 2007-137X

Published by the Asociación Mexicana de Derecho a la Información [Mexican Association of the Right to Information], this second volume of *Derecho a Comunicar* is dedicated to communication and health, understood as messages within health-related institutions, information on medical issues from research centres and their communication to society, as well as doctor-patient communication.



The volume contains a series of interesting articles. García Canclini presents a number of initiatives to reform the media, including the quality and diversity of the media as an expression of society made up of complex, active and critical publics that are increasingly less resigned to be mere receivers of content. Julio Amador Bech questions the perspective of authors such as Shannon and Weaver, whom he criticises for not studying the complexity of human communication. The author chooses a hermeneutic approach to human communication, especially interpersonal communication. Micheline Frenette and Pedro Reyes review different focuses for understanding the influence of the media and propose the use of marketing techniques in campaigns to promote public service messages, such as anti-smoking campaigns. Another article of note is the text written by Olga Bustos-Romero on the images of the body that exposure to advertising content can lead to among secondary students in Mexico City. The text underlines the differences between teenage men and women in appreciating their own body. Lucia Stella, Luz Elena Tamayo and Guadalupe Chávez present research into the formulation of political policies designed based on the concerns and condition of their beneficiaries. The article by Fernandes Araujo deals with the doctor-patient relationship, suggesting that doctors must see patients as interlocutors with a right to receive all the information and explanations to help them understand their illness. Finally, Carola García Calderón describes in her article the difficult relationships between the media, food manufacturers and regulatory authorities in Mexico and shows how the self-regulation of the media and manufacturers is totally insufficient.

Version available online:

<<http://www.derechoacomunicar.amedi.org.mx/pdf/num2/numero2.pdf>>

Journal of Communication

Malden, MA: Wiley-Blackwell. Vol. 61 (4), 2011
ISSN: 0021-9916 / 1460-2466 [online]



This issue of the prestigious *Journal of Communication* (it comes second in the ISI Journal Citation Reports Ranking) contains, among its articles, a study carried out by Malcolm R. Parks that examines how the theories of *taste performance*, *identity warranting* and *social capital formation* can be applied to behaviour found on the social network *MySpace*. The

article by Lee Humphreys then explores the issues of privacy and surveillance in new interactive technology. The project examines users' perceptions of mobile social networks regarding privacy and finds that a large number of the people studied were not concerned about privacy because they thought they had their personal information under control. The article by Druckman and Bolsen analyses how individuals form their opinions about new technologies and offer an idea of opinion forming over time. Another article, "A Communicative Approach to Social Capital", presents communication as a fundamental source of social integration. The authors offer evidence that the variables in communication, such as attention to news, foment social participation. The perception of risk of global warming and support for certain policies is tackled by Zhao, Leiserowitz, Maibach and Roser-Renouf. The authors assume that attention to news about science and the environment is associated to beliefs about global warming and a greater perception of risk. They have carried out an opinion poll among 2,164 adults that confirms their hypothesis and supports the cognitive mediation model of news learning. Hoffner and Rehkoff analyse hostile perceptions of the press and examine the media's influence before and after the 2004 US presidential elections among young Republican and Democrat voters. The study concludes that the perception of hostile media is greater among Republicans, especially among the followers of *Fox News*. Finally, Lee and Monge present research examining the evolutionary patterns and determinants of multiplex organisational communication networks.

Communication Research

London [United Kingdom] / Thousand Oaks [United States]: SAGE Publications. Vol. 38 (4), 2011
ISSN: 0093-6502 / 1552-3810 [online]

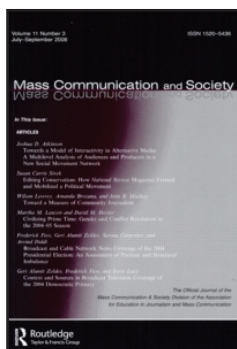
This issue of the journal *Communication Research* has six articles of great quality. Firstly, the article by Bakker and de Vreese analyses the role of the traditional media and the internet in relation to the political participation of young people aged between 16 and 24. The starting point for this article is the idea of *differential media use* to analyse the relationship between media use (press, television and the internet) and offline and online forms of political participation.



The authors show that internet use is related to different forms of political participation, while the relationship between most uses of traditional media and participation is weaker. Grabe and Samson then present an experimental study where they analyse the influence of news anchor sexualisation on audience evaluations of a female anchor as a professional and their memory for the news she presents. Male participants saw the sexualised version of the anchor as less suited for war and political reporting and retained less information. Women participants, on the other hand, did not vary in their assessments of the anchor's competence to report on war and political news between a sexualised and an unsexualised presenter, although they retained more information when it was presented by a sexualised anchor. A third article, written by Ramasubramanian, examines how media exposure to stereotypical African Americans influences real-world stereotypical beliefs of Afro-Americans, prejudicial feelings towards this group and lack of support for pro-minority affirmative action policies. The article discusses the implications for entertainment studies and political communication. The other three articles in the volume tackle issues related to social interaction (how individuals detect others' goals), emotions (the article uses the "relational turbulence" model) and interpersonal communication (analysing the associations between relational uncertainty, sexual communication and sexual satisfaction for husbands and wives).

Mass Communication and Society

Oxford [United Kingdom]: Routledge. Vol. 14 (4), 2011
ISSN: 1520-5436 / 1532-7825 [online]



Of note in this issue of *Mass Communication and Society* is the article by Jung, Kim and Gil de Zúñiga, investigating the role of political knowledge and efficacy as mediators between communication and online/offline political participation. The findings suggest that political knowledge and efficacy function as significant mediators. In addition, results expound the increasing importance of the internet

in facilitating political participation. Shortell deals with the controversy between creationists and biologists via a discourse analysis of their coverage in the press between September and December 2005. The article by Callister, Stern, Coyne, Robinson and Bennion analyses the representation of teenage and adult sexual conduct in teen-centred films from 1980 to 2007. The analysis shows that these films are replete with passionate kissing and sexual dialogue yet contain only a modicum of implicit sex. The study also reveals that these films are impoverished when it comes to messages dealing with safe sexual practices and information on the health risks associated with sex. Aubrey and Frisby develop a coding system to measure sexual objectification and its correlate in music videos. The study finds that female artists are more sexually objectified compared to male artists. Kim, Scheufele and Han introduce the concept of *discussion orientation* (one's willingness to express and listen in political discussion, even when disagreement exists) as a predispositional explanation of the impact of discussion heterogeneity on political participation. Finally, Wojcieszak presents a study based on data obtained from members in neo-Nazi discussion forums and builds on evidence that participation in these forums exacerbates false consensus, i.e. overestimating public support for own views. The study analyses whether contacts with dissimilar offline social networks as well as exposure to ideologically dissimilar news media attenuate false consensus and its association with online participation. Contrary to predictions, politically dissimilar networks do not reduce false consensus but can even exacerbate it.

Chinese Journal of Communication

Oxford [United Kingdom]: Routledge. Vol. 4 (3), 2011
ISSN: 1754-4750 / 1754-4769 [online]



The aim of the Chinese Journal of Communication (CJoC) is to boost Chinese communication studies via theoretical, empirical and methodological dimensions. The first three articles in this issue focus on China's coverage in TV news. The first article, by Willnat and Luo, analyses how China is represented in the media of 15 different countries and concludes that only a small percentage of foreign TV channels talk about China in their news and the topics dominating coverage focus principally on the country's internal politics, foreign policy and economic affairs. A second article by Lee, Chan and Zhou carries out a comparative analysis of data from 14 countries and analyses how television in these countries has covered the events and controversies regarding the Beijing Olympic Games and principally focuses on notions of *domestication* and *politicisation*. The third article, by Lin, Lo and Wang, investigates whether there is any bias in television foreign news in China, Hong Kong and Taiwan. An analysis of 565 items shows how foreign news focuses mainly on one country, the United States, concentrating on political issues and those of international interest, which are presented in a considerably sensationalist tone. The other block in the journal is made up of three articles with research carried out in Canada, Belgium and Germany including, in addition to television, the press and online media. Goodrum, Godo and Hayter examine how China is represented in Canadian media and de Swert and Wouters present an interesting article comparing the different coverage on the two Belgium television channels: public television had a correspondent in China while private television did not have one. The authors conclude that, while foreign correspondents deliver news coverage quality on many fronts at the same time, significant differences were not found in the news items. Finally, Wilke and Achatzi analyse how two German newspapers covered Chinese news from 1986 to 2006 and point out the significant rise in the economy as the main theme in the news and how both newspapers differ in their coverage according to their ideological lines.

Websites review

Media.cat

<<http://www.media.cat/>>

Aimed at journalism professionals, those studying the communication sector and citizens in general, this initiative by the Ramon Barnils Journalist Group [Grup de Periodistes Ramon Barnils] works to circulate and defend rigorous journalism and its own communicative space. The initiative acts as a critical observatory of communication in Catalan and analyses both its content and the formats it's presented in. This website provides access to its reports and monographic studies, media-related news and information, updated daily, and articles on certain issues, as well as links to a range of social networks and web 2.0 tools.

Media, Communication and Cultural Studies Association (MeCCSA)

<<http://www.meccsa.org.uk/>>

MeCCSA is an association dedicated to the study, analysis and promotion of the media, communication and cultural studies within the area of higher education in the United Kingdom. Among its aims are defending and developing higher education related to the media, providing a forum to exchange ideas, raising public understanding of the media and promoting research in this field, as well as adopting policies which encourage diversity and equal opportunities in this field. The website provides access to networks related to various areas, such as climate change, radio and gender studies. Relevant consultations can also be accessed, such as copyright and the promotion of media literacy.

Berkman Center for Internet & Society

<<http://cyber.law.harvard.edu/>>

The Berkman research centre's mission is to explore and analyse cyberspace, studying its development, dynamics, norms and standards and assessing the need for laws and sanctions. The centre analyses the real and possible boundaries in cyberspace between open and close systems of code, commerce, of governance and of education and the relation of law to each. Privacy, intellectual property, anti-trust, content control and electronic commerce are some of the areas of study promoted by the Berkman Center. As part of its research mission, the centre builds, uses and freely shares open software platforms. The website provides access to information on collaborating researchers, such as projects on the relation between the internet, regulation and society (for example, *Media Cloud* and *Internet and Democracy*).

Citizen Media Law Project (CMLP)

<<http://www.citmedialaw.org/>>

The Citizen Media Law Project is hosted by the Berkman Center for Internet & Society (Harvard University). The CMLP provides assistance, training, research and other resources for individuals and organisations involved in online and citizen media. The mission of Citizen Media Law Project is to serve as a catalyst for creative thinking about the intersection of law and journalism on the internet. Its portal has a wide range of services, such as a guide with information on current legislation in the different US states, a database with information on lawsuits, subpoenas and other problems that might be faced by people operating on the internet, as well as a forum and legal assistance via the Online Media Legal Network.

Common Sense Media

<<http://www.commonsensemedia.org/educators>>

Common Sense Media is a US not-for-profit organisation dedicated to improving the lives of children and their families by providing information, educational resources and an independent voice in a culture where media and technology are everywhere. Its website provides access to different research studies on the media's impact on children and their families. It also provides free tools such as the Digital Literacy and Citizenship Curriculum and the Parent Media Education Program, lessons on a range of themes, such as *cyberbullying* and *copyright*, online training and film and videogame reviews that help parents take informed decisions.

Digital Youth Network: Empowering Youth Through Media

<<http://www.digitalyouthnetwork.org/>>

The Digital Youth Network (DYN) is a media literacy programme that creates opportunities for youth to engage in learning environments that span both in-school and out-of-school contexts. The programme offers young people access and training in the use of new media literacy tools, as well as activities where the development of new media literacies is essential. Its website provides access to information on research into learning processes in a society where technological convergence is a reality, and information on the philosophy surrounding the programme and its core values: creativity, collaboration, adaptability, responsibility and identity.

MIT Center for Future Civic Media

<<http://civic.mit.edu/>>

Using the term *civic media* instead of *citizen journalism*, the MIT Center for Future Civic Media creates and develops new technologies to support and foster civic media and political action. On the one hand, the centre invents alternative technologies and, on the other, it identifies the cultural and social potential of media change. Its website provides access to different projects supported by the centre, such as *grassroots mapping*, *homeless neighbors* and *public art Wiki*. There is also access to different tools and blogs and an agenda with information on future conferences and congresses related to civic media.

Pew Internet & American Life Project

<<http://www.pewinternet.org/>>

The active Pew Internet & American Life Project is one of the seven projects carried out by the Pew Research Center, a non-profit centre that provides information on the attitudes and trends in the United States. The Project produces reports exploring the impact of the internet on families, communities, work and home, education, health, daily life and civic and political life. The Project periodically carries out surveys examining how US citizens use the internet and how its use affects their lives. In total, around 15 research studies are produced per year. Its website provides access to different topics (digital divide, education, social networks, new media ecology, among others), to statistical data of great interest and to a list of its collaborating experts.

Center for Social Media

<<http://www.centerforsocialmedia.org/>>

Founded in 2001 by Professor Patricia Aufderheide, the Center for Social Media showcases and analyses social media, especially the evolution of documentary film and video in a digital era. The centre explores the fast-changing environment for public media. The website highlights a section on good practices with categories such as documentaries, media literacy and online video, among others. Access is also provided to information on the new era of digital participation by public media, to a wide range of educational materials, documents and articles, as well as an agenda of events related to social media.

Digital Media and Learning

<<http://digitallearning.macfound.org>>

This initiative explores the hypothesis that digital media tools now enable new forms of knowledge production, social networking, communication and play. Especially focusing on young people, the initiative studies how they engage in an exploration of new languages, games and social interaction. Acknowledging the emerging vernacular of young people who are “growing up digital”, and embracing digital writing, thinking and tools, this initiative analyses whether young people are fundamentally different because of their exposure to technology and the environments and experiences that capture their interest. In this respect, it deals with the areas of ethnography, the development of media literacy and the connection between games and learning.

Media Psychology Research Center (MPRC)

<<http://mprcenter.org/>>

The Media Psychology Research Center is a non-profit centre dedicated to media research (to assessing the media) and to education. The centre analyses how people consume, produce and distribute information via new technologies and seeks to understand the impact on both individuals and society. The MPRC's mission is therefore to examine the interaction of media with human experience in every aspect of life for the purpose of promoting public understanding and positive media development and use. The website provides ample information on the concept of *media psychology* as well as recent projects carried out on social media, education, online audiences and the psychological impact of the media and interactive technologies on learning.

The GoodWork Project

<<http://www.goodworkproject.org/research/goodplay/>>

Within the GoodWork Project - a large scale project to identify and improve the incidence of good practices in society - we can find two media-related initiatives. On the one hand, the *Good-Play Project* explores the ethical character of young people's activities in the new digital media. Specifically, it analyses five themes: identity, privacy, ownership and authorship, credibility and participation. On the other hand, the *Developing Minds & Digital Media Project* (DM2) analyses, through qualitative interviews with professionals who work with adolescents and through content analyses of young people's creations, the myriad ways in which new digital media (internet, mobile phones) influence culture, psychology and creativity of young people and adolescents.

International Modern Media Institute (IMMI)

<<http://immi.is/Home>>

Located in Iceland, the IMMI works towards rethinking media regulation for the digital age. The centre's aim is to better protect freedom of the press the world over by establishing best practices in law and promoting their adoption. The website provides access to research covering a range of interests, such as communications protection, freedom of information, judicial process protection and the protection of information sources, among others. There is also access to a list of resources, such as legal information for countries, notable news articles, international guides and law references.

Women's Media Center

<<http://www.womensmediacenter.com/>>

Founded in 2005, the Women's Media Center focuses on making women more visible in the media. The centre works directly with the media to ensure that women's stories are told and women's voices are heard, both as sources and as subjects (be it in news items, the press, radio or internet). The centre acts in three different ways: through media campaigns, by creating content and by training women to participate in the media. Its website provides access to research, statistics and the She-Source.org database, which contains a list of experts in various areas and is designed to help journalists when they need a spokeswoman.

Canadian Media Research Consortium (CMRC/CCRM)

<<http://mediaresearch.ca/>>

The Canadian Media Research Consortium promotes economic, social and cultural research in Canadian media. Its objectives are to develop and fund applied research focusing on important issues related to technological change in the media, which are of key interest to policymakers as well as for media organisations, academics, civil society and the general public. Its website, in English and French, has a wide range of recent studies and publications, such as an interesting study of media consumption among the inhabitants of Quebec, another study on Canadians' confidence in the media and an analysis of how social networks are transforming how Canadian citizens access news.

Confessions of an Aca-Fan: The Official Weblog of Henry Jenkins

<<http://www.henryjenkins.org/>>

This is the official blog of the academic from the US University of South California, Henry Jenkins. In a casual tone, Jenkins explains in his introduction to the blog that this virtual place is somewhere to share his thoughts about many contemporary developments and to showcase his work and that of his students. The blog is constantly updated and is full of information on different areas, such as comics culture, convergence, fan culture, participation, media policy, civic media, media literacy and reality television, among others. The links section is also particularly interesting, with numerous links to media-related sites.

Manuscript submissions guidelines

Presentation of the articles

The article must be presented in electronic support (PC and Word format preferred). Every page must be 30 lines approx. and **body size 12**. The maximum length is about **6.000 words**.

The cover sheet has to be provided only giving the title, the name of the author(s) and position, postal and e-mail addresses. The article has to include an **abstract of 90-100 words and five keywords**.

Articles will be accepted in **Catalan, Spanish and English**, the languages of diffusion of the journal.

Submission

Articles should be addressed at: quadernsdelcac@gencat.cat

Copyright clearance

Every author whose article has passed the blind review and has been accepted for publication must send to CAC a signed letter accepting the text publication by CAC in its journals and website (www.cac.cat) and confirming that the article is original, unpublished and is not assessed in other publications, being the author responsible of any reclaim due to the non-fulfilment of this warranty. .

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08018 Barcelona

References and notes

The list of references and end notes has to be placed at the end of every article. References in the text must appear into brackets with the name of the author, the year of edition and the pages. (Name year, pages).

The model used for citing the bibliography must follow the criteria given by TERM CAT, which may be consulted at:

<<http://www.termcat.cat/docs/docs/bibliografia.pdf>> [in Catalan]

- Books

LAST NAME; INITIAL/INSTITUTION. TITLE. EDITION. PLACE OF EDITION: PUBLISHER, YEAR. VOLUME. (COLLECTION, NUMBER). ISBN NUMBER

- Articles in journals

LAST NAME; INITIAL. "TITLE OF THE ARTICLE". JOURNAL. VOLUME. (YEAR), ISSUE NUMBER, PAGES. ISSN (OPTIONAL)

- Contributions to books

LAST NAME; INITIAL/INSTITUTION. "TITLE OF THE CHAPTER". IN: LAST NAME; INITIAL/INSTITUTION. TITLE. EDITION. PLACE OF EDITION: PUBLISHER, YEAR. VOLUME. (COLLECTION, NUMBER). ISBN NUMBER

- Online documents

LAST NAME; INITIAL/INSTITUTION. TITLE [ONLINE]. EDITION/VERSION. PLACE OF EDITION: PUBLISHER, YEAR.
<URL ADDRESS>[CONSULTED: DATE]

Tables and figures

Tables and figures have to be provided with **short, descriptive titles** and also be numbered in Arabic numbers. All footnotes to tables and their source(s) should be placed under the tables. They must be inserted not as an image but in an **editable format** (e.g. in Excel). **Colour** figures, tables and graphs are admitted and they all should have the **source well identified**.

Book reviews guidelines

1. The aim of the section 'Critical books review' is to review the most important new publications in the world of communication and particularly in the field of broadcasting.
2. Reviews must be original and previously unpublished.
3. Reviews must be adequate for readers to get a general idea of the content of the book under review, as well as providing a personal assessment of its interest. The review must therefore contain a description and analysis of the book, as well as some conclusions indicating its value and importance to readers.
4. The recommended length for reviews is around 1,000 words, not exceeding 1,300 words in any case.
5. Reviewed books must be contemporary, i.e. they must have been published during the last two full calendar years, although an earlier book may be included if duly justified.
6. The review must be given a title that summarises its content, with the bibliographical details and the author of the review below, including his or her position and the institution to which he or she belongs.
7. The model used for citing the bibliography must follow the criteria given by TERMCAT, which may be consulted at: <http://www.termcat.cat/docs/docs/bibliografia.pdf> [in Catalan]

LAST NAME; INITIAL/INSTITUTION. *Title*. Edition. Place of edition: Publisher, year. Volume. (Collection, number). ISBN number
8. The author should be introduced briefly by commenting on his or her background or most recent work.
9. The most important part of the review is the summary and analysis of the content. Here it is necessary to explain the field in which the book is placed, the perspective adopted by the author, the goals the author sets him or herself and the fundamental thesis of the book and how it is developed.
10. The critical evaluation should be generally positive but negative comments can also be included, in both cases suitable arguments being required. Readers must be informed regarding the value, interest and usefulness of the book under review. If relevant, other details can also be included, such as the use of sources, documentation, the bibliography used by the author, the book's formal presentation, etc.
11. Any possible references to text from the book under review must be written in inverted commas, with the page number afterwards, in brackets. "Quote" (p.XX)
12. Bibliographical references to third parties cited in the text of the book under review must use the following model: (Last name year, page number)
13. Bibliographical references from other works quoted in the review must be contained in full at the end, using the same format as the initial bibliographical reference but excluding the ISBN.
14. The review must be sent digitally, in Word or Word RTF, to the following email address: critica.cac@gencat.cat
15. The book review editor will evaluate every submitted review, in order to approve its publication or ask for some modification for its definitive publication
16. Reviews may be written in Catalan, Spanish or English and will be published on these three languages on the CAC website in PDF format.
17. After a review has been accepted, the author must authorise the CAC to publish his/her review in any of its written publications and on its website (<http://www.cac.cat>), by means of a signed letter sent by postal service. In the letter the author must confirm that the article is original, unpublished and is not assessed in other publications, being the author responsible of any claim due to the non-fulfilment of this warranty. Letters should be addressed at:

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