

Digital Natives and Virtual Communities: Towards a New Paradigm of Mediated Communication

Anabela Gradim

Universidade da Beira Interior, Portugal

E-mail: agradim@ubi.pt

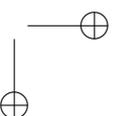
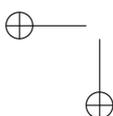
THE purpose of this work is to make apparent the link between the new paradigm of mediated communication, characteristic of digital natives, and virtual communities. Gen-M is the first generation to live solely in the new paradigm of mediated communication, characterized by being a paradigm where information consumption and production have melted into one figure. Our claim is that they were driven to it through contemporary modes of socialization, namely by hanging around in a wide range of virtual communities. Outlining the main characters of the new emerging paradigm is the other scope of this research.

This paradigm shift we'll intend to characterize was predicted more than ten years ago by Pierre Lévy, when he wrote, in his well known book, *Cyberculture*, that the fate of cyberspace instruments was not the cloning of existing forms, but to bring about the radically new, in such a way its evolution would meet «forms that soften the distinction between administrators and the administered, the separation between teachers and students, and the division amid information consumers and producers».¹

The first, dissolution of frontiers between administrators and the administered, is still a pipe dream. There are some signs of the establishment of the second, namely the restructuring of university curricula in Europe according to the outlines of the Bologna treatise, and which encourage a more active participation of students in the learning process, self-learning in academy and throughout life, and the need to take responsibility for one's own academic path, implying new and more flexible curricula.

But the third form cyberculture would bring about, the blurring of the distinction between information producers and consumers has already happened,

1. LÉVY, Pierre (2000), *Cibercultura* – Relatório para o Conselho da Europa no quadro do Projecto «Novas tecnologias: cooperação cultural e comunicação», Lisboa: Instituto Piaget, Col. Epistemologia e Sociedade, n.º138.



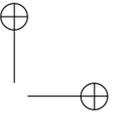
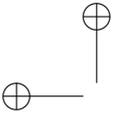
creating the new mediated communication paradigm this study intends to describe. Furthermore, our study argues this paradigm shift is mainly due to the new forms of socialization present on the web, which are changing and shaping our lives in unforeseen ways.

Although still not clearly bounded, for the purpose of this study Gen-M is defined as being the first generation in which media play a central role in their lives, and comprises, roughly, those born after 1982, which are presently in their teens or early twenties. It is the first generation whose lives have been consistently changed and shaped by the media, and particularly, new media. For these youngsters, the digital natives, cyberspace as evolved towards the dissolution of frontiers between information production and consumption, and every Gen-M, as this paper will try to show, plays simultaneously both roles.

Users of digital media, particularly those relying on the internet, are no longer passive recorders of information, but alternate such activities with the role of content producers, injecting new information on the web, and thus raising the volume of circulating data. The paper argues such interactivity is what characterizes Gen-M appropriation of the media, an event that is completely new as related to traditional media, and defends that there is an intimate relation between these new media usages and the new ways of teen socialization, namely socialization through CMC (Computer Mediated Communication) in spaces conventionally designated as virtual communities.

On line, all the time, for everyone, is the distinctive trait of Generation-M. To illustrate this paradigm change, the paper analyses the figures of web penetration and usage in Portuguese households; applies a survey over media consumption and usages to college students, namely all freshman and senior year students of the Faculty of Arts & Letters of Universidade da Beira Interior; and studies the constitution of virtual communities around the comment boxes of three popular Portuguese blogs.

The survey's purpose was to evaluate if the web usage profile of these students could account for the turn in a new, bi-directional communication paradigm, and the results showed clearly such is the case. Gathered this material, the paper tries to outline the new paradigm of mediated communication's characteristics, as opposite to the *old media* model, exploring eight distinct features of new media usages, confirmed by the empiric data available; and draws conclusions on how new media pervading our lives are changing and shaping the ways of the future.



A political animal

Aristotle might have been the first to notice that, besides the use of language, what distinguishes man from other creatures is being a social, gregarious animal, able to gather in political communities. He was certain man was naturally made for society, more social than bees and other animals living in communities, for man only develops in the realm of the political». ²

Internet's success, if not its birth altogether, is a direct result of this social aspect of man, and of his will to communicate. Even in 1968, Licklider and Taylor, who encouraged the establishment of Arpanet, had recognized the challenge of gathering people through Computer Mediated Communications (CMC).

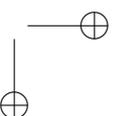
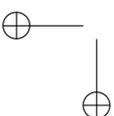
The Arpanet (Advanced Research Projects Agency Network) was a project from the United States Department of Defence, and started its activity in 1969. The project intended to create a de-centralized network connecting a small number of super-computers to some terminals, and initially it only had four «nodes». ³ Soon after, Ray Tomlinson would send the first e-mail, and two years later, 75% of the traffic at Arpanet consisted in sending e-mails.

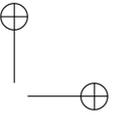
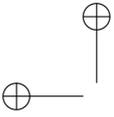
More than the network's physical structure, our interest is to show that one of the purposes for which it was created was to allow the sharing of time and computing power, as well as to gather distant researchers enabling them to exchange information. ⁴ The first applications developed to Arpanet were *telnet*, *ftp*, and *talk* (similar to e-mail), and this latter would become the web's most successful one. «In retrospect, it is perhaps less surprising than it was at the time that one of the most widely-used applications of ARPANET was e-

2. Aristóteles, *Política*, 1988, ed. bilingüe, col. Ciências Sociais e Políticas, Editorial Vega, Lisboa, p. 55, and *Politics*, trans. by Benjamin Jowett, Batoche Books, 1999, p. 5-6: «Now that man is more of a political animal than bees or any gregarious animals is evident. Nature, as we often say, makes nothing in vain, and man is the only animal whom she has endowed with the gift of speech. And whereas mere voice is but an indication of pleasure or pain, and is therefore found in other animals (...) the power of speech is intended to set forth the expedient and the inexpedient, and therefore likewise the just and the unjust. And it is a characteristic of man that he alone has any sense of good and evil, of just and unjust, and the like, and the association of living beings who have this sense makes a family and a state».

3. Those nodes connected terminals at UCLA, Stanford, University of California – Santa Barbara, and at the University of Utah.

4. Bell, David (2001), *An Introduction to Cybercultures*, London: Routledge, pp. 13 e ss.





mail – its appeal to users ensured its success and widespread adoption, making ARPANET a communications system as much as a computing system». ⁵

In this usage of the network – not quite the one its creators had expected – can be found the strength of man’s social behaviour, and of his tendency – for Aristotle only natural – to create communities. As Tim Jordan would notice, «the key point about e-mail is that rather than people using ARPANET to communicate with computers, has the designers had expected, people used it to communicate with other people. This was despite the fact that email was not programmed into the system but was added unofficially in an ad-hoc way. Email emerged spontaneously as the basic resource provided by ARPANET». ⁶

Today, the Internet is as much a collection of communities as of technologies, «and its success is largely attributable to both satisfying basic community needs as well as utilizing the community in an effective way to push the infrastructure forward». ⁷

What are, then, communities, and what’s specific of those born in the cyberspace, which probably constitute the cornerstone of its success and widespread usage? What is the link of these communities, often called *virtual*, with the new mediated communication paradigm shift we’ve been talking about?

It’s not an easy task to define community, whether virtual or not. Rheingold, more than twelve years ago, made the expression «virtual community» popular, when referring to the Well, ⁸ a group of cybernauts from the San Francisco Bay Area in rapid development. In that work, virtual communities – in one of its best and most influential definitions – are said to be «social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace». ⁹

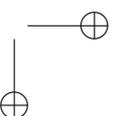
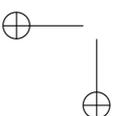
5. *Idem.*

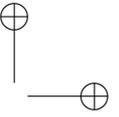
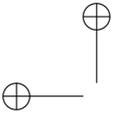
6. *Idem.*

7. Leiner, Barry; Cerf, Vinton, & alia, A brief History of the Internet, http://www.cnri.reston.va.us/leiner/brief_internet_history.html

8. The expression became known through the classical *The Virtual Community*, of Howard Rheingold (published in Portugal by Gradiva), and which has a full downloadable version in the author’s personal web page (www.rheingold.com). The book was first published in 1993, and the Well (Whole Earth ‘Lectronic Link) is now in its early twenties, for it was founded in 1985.

9. *Idem.*, p. 18.





The possible configurations of virtual communities is vast – from pre-diluvian MUDs telnet operated, to MUSHes, MUSEs, and MOOs with 3D graphic interfaces, as well as simpler but no less popular formats as forums, newsgroups or mailing-lists, to end up in the blogs boom. As far as blogs are concerned, they might be said toddlers in the cyber-worlds galaxy, and around these we've been witnessing the emergence of real communities having for privileged communication spaces the comment boxes of those blogs.

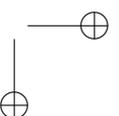
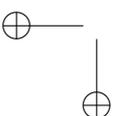
With such a wide range of profiles, it is worth to understand what these characters and associations bear in common, to deserve the name «community»; and also, which specific problems do they pose, merely for being said “virtual”.

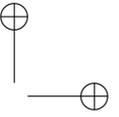
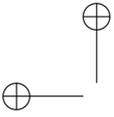
«Community» has always been an elusive concept when it comes to definition. As a first approach to the concept, community seems to be those who share or have something in common (physical space, problems, religious beliefs, interests, ideologies. . .) – but if that is a necessary condition for community, it certainly isn't condition enough: a class of individuals with something in common doesn't make up for a community.

When, then, does a group of individuals with something in common becomes a community? Precisely when, as Rheingold argues, they start to form «webs of personal relationships» between their members; and those relations can only emerge through rich and constant communication between those involved. Hence, as Fernback proposes, community might be understood as process: «Community is both an object of study (an entity, a manifestation) *and* the communicative process of negotiation and production of a commonality of meaning, a structure and culture. The terrain of community is mapped through a process of reconciling interpersonal dynamics, collective dynamics, and ideologies». ¹⁰

Until the mid past century, community would suppose as a necessary condition the existence of a common physical space, which is only natural, for historically, human communities were born out of that condition. But presently, in a deeply mediatised society – of which CMC are but the last medium acquired – that is not true anymore.

10. FERNBACK, Jan, “There is a There There: Notes Toward a Definition of Cybercommunity”, in *Doing Internet Research – Critical Issues and Methods for Examining the Web*, ed. Steve Jones, Sage Publications, 1999, London, p. 205.





Fernback suggests it's high time to face community not merely as a physical entity (although it also is one), but as a symbolic reality, or community of sense; that is, suggests that the reality of new communities is better grasped when one adopts a vision that privileges «substance over form». ¹¹ So, besides the physical aspects, a virtual community is real insofar it is understood like that by its elements, which attribute it a meaning, and get emotionally involved with the activities pursued, creating those personal bonds which are the source of a true community.

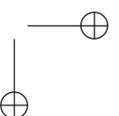
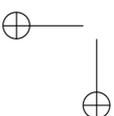
For all these reasons, the space where community plays its role, and the feeling of belonging it imparts cannot be severed from certain subjective components: the judgment its members make about the community itself. Therefore, different individuals might judge differently the status and actions that take place in one and the same community, and the «social contract» that establishes such community, the rules and norms that endow it with meaning, can at all time be negotiated, adjusted or revised.

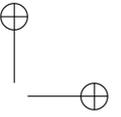
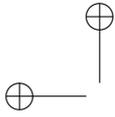
Bearing in mind these considerations, it is now easier to gather a few notes on the nature of «community». This would be «a complex of ideas and feelings» embodying an identity which can transcend physical boundaries. ¹² It is formed through the communication process between its members, who give it meaning, grant sense to social norms, and establish rules, hierarchies, and a common history that constitutes the community's legacy. It doesn't seem overstated to say that, as a process and symbolic entity, virtual communities are similar to IRL (In Real Life) ones.

To sum it up, more than a geographical boundary, the most specific characteristic of a community is to *berelation*, communication, emerging from the subjective feeling of sharing and belonging of each one of its members. It is a fact that such community exists in a physical space, the process of interaction and the resulting files are archived in servers and can be recovered at any time, it is formed by *in re* people, who must have some kind of physical connection to that agora, etc. But the community doesn't dwell in any of those things and can't be captured there – it lives in the spirit of its members, where it is imagined, dreamed, and recreated on and on. The virtual community has a minimal entitative character constituted by living in the spirit of those who

11. Jan Fernback, op. cit.

12. *Idem*, p. 209.





conceive it, emerging from the relations they establish with one another. As Steve Jones puts it, «the sense of community is palpable, yet evanescent». ¹³

Every «Virtual Community» relies on a material body – at least, the servers where it dwells, and the software it makes it possible – but you can never, rigorously, mark the community's physical limits, nor declare its presence, or absence, in one moment or another. The set of ontological problems VC's entail is relevant, for they arise from characterizing it as a process of meaning production, a reality quite unstable and in permanent renewal.

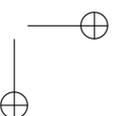
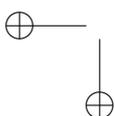
So, what is Cybercommunity? «It is an entity and a process that emerges from the wisdom of our repository of cultural knowledge about the concept of community, and from observation of its manifestation in cyberspace. It is an arena in which passions are inflamed, problems are solved, social bonds are formed, tyranny is exercised, love and death are braved, legacies are born, factions are splintered, and alliances dissolved. It is a rich arena for study by scholars, cybercommunitarians, and the curious ». ¹⁴ This new world presents configurations completely distinct from those that their early creators had foreseen. As Tom Koch so elegantly puts it, «the reality of contemporary online communication bears only a faint resemblance to either the computerized searches of fiction, or the promised land confidently described by experts – a landscape of multimedia presentations in a 500-channel universe of perpetual shopping, wrestling, and cinema. Instead, the online universe of conferences, newsgroups and forums is filled with mute pleas and responses typed to the world in often execrably spelled and grammatically eccentric prose». ¹⁵

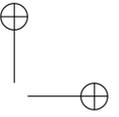
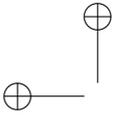
In Portugal the VC phenomena hasn't had such a powerful impact, and the development of communities occurred in a much slower and uncharacteristic way. Here, the world wide web became known to the general public by 1995, but the widespread of personal computers, and broadband connections, would start much later. So, in Portugal, it is relatively new the possibility of being «*online, all the time, for everyone*». Yet, despite the traffic jam in forums,

13. JONES, Steve, "Information, Internet and Community: Notes toward an understanding of community in the information age", in *Cybersociety: revisiting CMC and Community*, ed. Steve Jones; 1998, Sage Publications, London.

14. FERNBACK, Jan, "There is a There There: Notes Toward a Definition of Cybercommunity", in *Doing Internet Research – Critical Issues and Methods for Examining the Web*, ed. Steve Jones, Sage Publications, 1999, London, p. 217.

15. KOCH, Tom, *The Message is the Medium – Online All the Time for Everyone*, 1996, Praeger Publishers, Westport.





mailing-lists, and IRC channels, the boom of «personal relations» on the web only happened after the year 2000, with the emergence of blogosphere, and the social network it brought about. And that's why, for the Portuguese reality, I'm considering blog is the medium that operated the paradigm shift we've been analysing. Blogger's software was revolutionary in that it allowed for any user – no matter how computer-dumb – to place contents online; and, as soon became evident, there were millions longing for it. Those millions of bloggers became, instantly, not mere information consumers, but assumed simultaneously the role of producers. The blog itself will intensify this movement, with the appearance of true virtual communities – communities of sense and meaning – around the comment boxes of some of those, causing even those who *don't own a blog*, to produce and inject new information into the system.

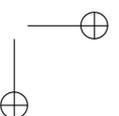
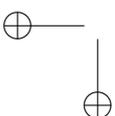
If we accept Rheingold's definition of VC, which claims there is one when a dialogue evolves through the net long enough to generate webs of personal relations among those implied, it is possible to evaluate the establishment of communities around blogs through the analysis of the frequency of that kind of contribution.

In the present work, I try to evaluate the establishment of communities in three popular Portuguese humorous blogs, which possess comment boxes: *Marretas*, *Rititi*, and *Vida de Casado*. I then analyse the profile of new web users – digital natives, those born in the mid-eighties – and how their behaviour in using the network fits the institution of a new paradigm of mediated communication.

Blogging and “hi -fiving” on the web

Os Marretas is a humorous blog, kept by three university teachers, that has as most active member «Animal», and was born in February of 2003, presenting now a million and 332 thousand visitors, and counting.¹⁶ *Os Marretas* is the kind of blog about which one can speak of micro-CV on its comment boxes, for most of these comments, and the relations established between bloggers and those who comment the posts are clearly personal.

16. www.marretas.blogspot.com



The evolution of commenting in the blog can help to seize this. By February of 2003, the month it was born, *Os Marretas* published 25 posts, and received zero comments. The next month, March, 216 posts generated, again, zero comments. But in 2007, in the same months, everything was different. In February there were 79 posts and 484 related comments; and by March 73 posts, generating 422 comments: in both cases, an average of 6 comments per post.

*Rititi*¹⁷ is the blog of Rita Barata Silvério, a young urban Portuguese woman, living in Madrid. Only accidentally can *Rititi* be considered a humorous blog, although it often makes its readers laugh; but, at least, can be characterized as a young, feminine, urban blog. The space was born in December of 2003, producing, that month, nine posts, and zero comments. By March *Rititi* had published four more posts, which received, again, zero comments. But in the same period a few years later, December of 2006, we'll find 21 posts and 165 comments; and in January 2007, 18 posts and 147 comments: an average of eight comments per post.

*Vida de Casado*¹⁸ is a humorous blog about family life and conjugality, authored by a teacher from Cuba, Alentejo, and was born in June of 2004. In its inaugural month counted five posts and 36 comments, and, the next month, 17 posts and 19 comments. Three years later, by June 2007, five posts would make up for 136 comments – and average of 27 comments per post, and far superior to the rates registered upon its opening.

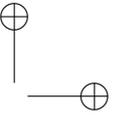
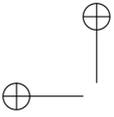
To the exception of *Marretas*, both *Rititi* and *Vida the Casado* have published books with a sort of best of selected materials from the blog.

It is obvious this analysis, merely quantitative, can't account for the richness of the interactions generated, but even this simple examination has the merit of showing how blogs evolved, in the beginning, from zero external participation, for constant and sustained comment averages.

Qualitative analysis, in its turn, would show that blogs whose comments are answered by editors are the most successful. Monitoring those blogs also showed that a certain familiarity (“personal” relations) is established between the blog authors and those who elaborate regular comments; and that friend-

17. <http://rititi.com/>

18. <http://vidadecasado.blogs.sapo.pt/>



ship and mutual recognition arises even among comment producers themselves.

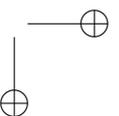
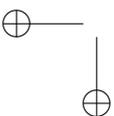
As we've been saying, virtual communities have had a significant role in shifting the paradigm of mediatised communication, operating the merge between information producers and consumers. Blogs, for their popularity, and the VC's created around them, contributed decisively to make the common user of the web an information producer. A simple comment generated by a post represents new content injected in the network, producing new information stored and permanently available to everyone else. Blogs, unadvisedly, have turned readers into writers, consumers into producers, and this new paradigm, among youngsters, cannot be reversed.

Some figures of the merge

Definitely, information consumption isn't what it used to anymore. Since the web launched truly bi-directional media – in which information is truly interactive, and a two-way process – the profile of information consumers has changed, and almost everyone, in the action of consuming information, gives something back to the network (creates some kind of information).

The paradigm revolution Levy had foreseen a decade ago is consummated, and was brought about by the emergence of the world wide web, and by a specific culture that privileges community, "to put in common". Against the traditional media model of one broadcasting to many – like in radio, tv, or newspapers – and in which the feed-back, although possible in theory, was always too bureaucratic and demanding to be engaged in, the web brought to the contemporary scene a media that, like the phone, is bi-directional, but adding to it two supreme details: it is a mass media (the first to achieve bi-directionality), and is allowing for the convergence of modalities once specific of distinct mass media (text, from papers; sound, from radio; pictures, from the magazine; and moving images, from tv), organizing these materials in multimedia products, and fathering new languages and new modes of communication.

Before characterizing the new paradigm of mediated communication, one of our initial purposes, one must examine the internet dissemination in Portuguese households, and the profile of it's users. This done, the way young



college students use the new medium, and how far they represent the merging and convergence between information consumption and production, can be analyzed with more detail.

In Portugal, domestic households connected to the internet have grown from 15% in 2002, to 35% in 2006, with Lisbon (41%), followed by the autonomous regions (37 and 38%) leading the charts. In an international comparison, Portugal stands in one of the last positions, near Poland, Slovakia, Lithuania and Hungary; but even so, some 13 points above from Greece. In the other end of the chart, we find northern countries, such as Finland, with 65%, Luxembourg, with 70%, Sweden, with 77%, Denmark, with 79%, and the Netherlands, with 80% of households connected to the Internet.

Portuguese numbers are disappointing mostly because they're below the EU average, whether measured in terms of 15 member states (in this case it is 54%), or in terms of 25 states (in this case it is 52%).¹⁹

Better signs are showed by the broadband growth rate, for in 2002 only 8% of Portuguese households had it, while four years later that number was up to 24%, with Lisbon and the autonomous regions once again leading the chart, and surpassing the average. In this indicator Portugal appears next to countries like Poland (22%), Latvia (23%) and Hungary (22%), but not so far from the EU's average, either measured at 15 (34%) or 25 states (32%), as in the last chart.²⁰

As to internet users in Portugal, in those aged between 16 to 76 years old, there are 42% users, a number which places Portugal above Greece (38%), and still far distant of countries such as Finland (80%) or Denmark (86%); as well as from the EU average considered with 25 member states (61%) or 15 member states (63%).²¹

More interesting, and opening some optimistic perspectives, are the figures referring to computer use by gender (39% for women, against 46% to men), and by group age: from 16 to 24 years old there are 80% users, a num-

19. Data gathered from *A Sociedade da Informação em Portugal 2006 /The Information Society in Portugal 2006*, Chapter II – Population and TIC, in http://www.osic.unic.pt/publicacoes/Cap2_Pop_Port_Eng_VF.xls, and from *A Sociedade da Informação em Portugal 2006*, UMIC e INE – National Institute for Statistics, http://www.osic.unic.pt/publicacoes/sociedade_da_informacao.pdf

20. *Idem*.

21. *Idem*.

ber that consistently decreases as the age of the sample rises, coming to 63% in those between 25-34 years, 44% in the group aged between 35-44, to a scarce 4% among those between 65 and 74 years old.

Education is the most relevant factor to consider when it comes to computer usage. Computer users are 27% of those who accomplished 9 years of school. The group who completed secondary education (12 years of school) has 87% of users; and among those who completed college education, rises to 91%.

These figures suggest the gap with northern countries will diminish with generational renewal, which in Portugal has been significantly tied with an increase of the school qualification; and can be read even more optimistically if considered in relation of the subjects condition to work: by 2006, 9% of retired and inactive people would use personal computers; while among students computer users were 99% (by 2002 they amounted only to 88%).

The figures relative to internet usage, with margins slightly inferior to the previous, reproduce in the whole the trends mentioned above. In Portugal, in 2002, it was of 19%, and in 2006 had rose to 36% , while in the EU came to 56%. As to the age profile of users, comprises 75% on those aged between 16 to 24, 54% on those aged between 25-34, and falls consistently as the sample's age rises, to attain 3% of those between 65 and 74.

As to the relation of schooling and web usage, 19% of those who completed nine years in school use it,²² against 80% of those with Secondary Education, and 87% of those who finished a college education. If considered from the point of view of working condition, among students web users represent 96%, while, in the opposite end, retired people represent 6%.

The following chart represents, in percentage, the main activities developed by Portuguese population when using the web:²³

22. In Portugal these nine years represent the minimum, mandatory school time a citizen has to accomplish.

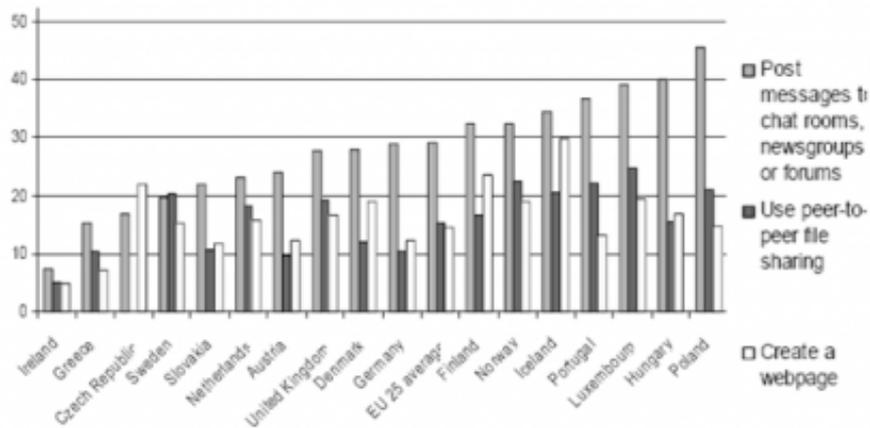
23. Data gathered from *A Sociedade da Informação em Portugal 2006 / The Information Society in Portugal 2006*, Chapter II – Population and TIC, in http://www.osic.unic.pt/publicacoes/Cap2_Pop_Port_Eng_VF.xls

	2003	2004	2005	2006
COMMUNICATION				
Send and receive e-mails	78	81	81	81
Voip and Videoconference	10	11	10	16
Developing blogs	X	X	07	10
Other communication activities	40	37	37	39
INFORMATION RESEARCH AND ONLINE SERVICES				
Information research on goods and services	82	79	81	84
Playing, game downloads, images and music	43	45	44	46
Reading, download online papers/magazines	49	50	51	45
Research health information	25	19	31	39
Using services related with travel and acomodation	27	31	33	35
Listening to radio/watching TV	23	27	28	30
Research information for offline purchasing	X	X	25	29
Software download	27	28	28	26
Seach/apply for a job	X	11	12	14
PURCHASE GOODS & SERVICES, HOMEBANKING				
Internet banking	24	26	26	27
Purchase/order goods and services	12	10	12	12
Selling goods and services	2	2	2	2
CONNECTION TO INSTITUTIONS/PUBLIC SERVICES				
Gathering information about public administration	38	35	37	39
Public administration portal integrating services	X	19	30	35
Download official forms and documents	21	26	26	30
Fill/submit online official forms and documents	20	26	28	32
Send requests/complaints to public institutions	X	6	8	9
Participate in online public consulting	X	4	5	5
Participate in discussion forums of public interest subjects	X	5	5	4
EDUCATION AND TRAINING				
Engage in formal education activities	23	20	19	18
Engage in post-formal education activities	4	4	4	3
Courses related to job opportunities	4	4	2	2

Even more interesting are OCDE's conclusions related to the type of content created by web users in 2005. In this chart, Portugal, which in most indicators is far from the EU average, when considered in absolute terms and only within the web users group, comes in fourth in what concerns content production (except web pages), only being surpassed by Luxembourg, Hungary, Poland; and surpassing countries such as Norway, Finland, UK and Sweden

(except in P2P). Also, in this chart, Portugal rests significantly above the EU average, except when it comes to web page production.²⁴

Conteúdos criados pelos utilizadores, em percentagem dos utilizadores da Internet, 2005
(utilizadores de 16 a 74 anos)



Fonte: OCDE com base em EUROSTAT, Março de 2007.]

Wired: User profile of UBI students

The figures we've been analysing show the figures of internet usage are very high, in line with the other European partners, and peak among college students and college degree owners. Our survey, which took the form of an inquiry, involved the freshmen and senior students of all graduation courses of Department of Arts and Communication of the Faculty of Arts and Letters at Beira Interior University (UBI), namely: Communication Sciences, Philosophy, Multimedia Design, and Cinema. The aim of this procedure was to shed some light and understand their web usage profile, evaluating them, specifically, from the point of view of the new paradigm of mediated communication,

²⁴ Chart found at *A Sociedade de Informação em Portugal 2006*, UMIC and INE, http://www.osic.umic.pt/publicacoes/sociedade_da_informacao.pdf

the one that merges information consumers and producers in one and the same character.

The survey was answered by 244 students, 107 freshmen, and 137 seniors, a significant number if we bear in mind the whole Department amounts to some 500 graduation students, and it was conceived to evaluate their web usage profile. The research wanted to check if such use would confirm or infirm the shift towards a new mediated communication paradigm, specifically one that makes of every consumer also a producer. The results were unequivocally positive regarding this point.

Among freshmen, the sample involved 40 males, and 67 females, with the following course distribution: 58 from Communication, 25 from Cinema, 7 from Design, and 9 from Philosophy, while 8 didn't mentioned the course. Seventy percent of freshmen respondents were aged between 19 and 21 years old; while the eldest respondent was 50 years old. The remaining were evenly in their mid twenties, thirties or forties.

Their responses showed 57% watch TV once a day, and 37% more than three times a day; while 50% access the internet more than three times a day, 27% once a day, and 19% more than once a week. Significantly, the number of respondents which said didn't used or accessed the world wide web was zero.

Our intent was to evaluate if these students were, somehow, information producers in the new medium, and that is the most relevant result of this research. Among freshmen, 93% practice, when accessing the web, some kind of activity implying content introduction on the network, and only 7% (eight persons) claimed never have done so. Moreover, amid those 93% who do it, the vast majority engages simultaneously in several activities implying content production.

The activities considered as producing new contents are diverse and imply different degrees of skilfulness and interactivity. UBI's freshmen declared in this survey the following: 24% have a personal web page; 22,4% have a blog; 20,5% participate in blogs; 27% have contributed to mailing-lists; 30,8% have already produced content to the web; 59,8% possess active P2P programs; 27% own a page in «MySpace»; and 75,5% own a page in «Hi5». Considering the whole sample, only 7% answered negatively to all the indicators. Our conclusion, from these data, is that 93% of UBI freshmen have, some-

how, elaborated content to the web, and therefore can stand as information producers.²⁵

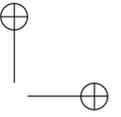
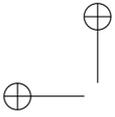
Senior students, with 137 questionnaires validated, follow and amplify the trends evaluated with freshmen. The sample had 96 female elements (70,5%) and 37 male elements (27,2), while three individuals didn't answered this question. From these, 49,5% watch TV once a day, against 34,5% who do it more than three times a day. The number of senior students who access the internet more than three times a day is 16% higher than the freshmen, amounting to 66%; while 27% only do it once a day. Another trend in these answers is that the frequency of internet usage rises when TV consumption is low; and heavy TV consumers spend less time on the internet.

When trying to establish if seniors were, somehow, information producers in new media, the percentage of those who declare to do so was even higher than among freshmen: 97% engage in some kind of activity, or several, implying introducing new contents on the network, and only 2,9% (four respondents amid 137) claimed never have done so.

A closer look to their scores shows 19,1% own a web page, 22,5% own a blog, 36% have participated in a blog, 36,7% have contributed to a mailing list, 51,4% have created content for the web, 57,3% own active P2P programs, 13,2% own a page in «My Space», and 80,4% - a figure higher than its correlate near freshmen – possess a page in «Hi5».

Students of the Faculty of Arts and Letters at UBI are wired, and their profile doesn't stand very different from the profile of the other Portuguese college students. The most impressive conclusion these results show is that an overwhelming majority of students (93 to 97%) use new media in an interactive way, that is, have transformed themselves in information producers. Regardless of the quantity, or quality, obtained, they return that information to the network, and are operating, definitely, within the new paradigm of mediated communication, which has as main characteristic the melting of those two characters – consumer and producer – once so distinctly apart. On the other side, the survey also shows that higher schooling, and more time spent in the university, raises the subject's interventions in the network, to come to an impressive, and hardly beatable, 97% among seniors.

25. Of course, the degree of expertise of these users, the sophistication of activities they engage in, and the relevance of materials produces varies greatly.



A new paradigm of mediated communication

Having outlined the sketch of web usage in common college Portuguese students, like the ones who study at UBI's Arts and Letters, let us now point some specific characteristics of the new paradigm of mediated communication.

Eight aspects become obviously relevant when comparing old media with new media. In the first place, in traditional media communication is unidirectional, from one to many; while in new media communication is bidirectional and interactive – many to many.

Traditional media are fed by rigid contents, previously formatted; while in new media one can expect participated content, taking the form of a work in progress, and whose result is, *ab initio*, unknown.

In traditional media there are clear boundaries between different media (TV is diverse from radio, and can't be mistaken by a paper, etc); while in new network media we find the convergence of several medium and their melting in multimedia products.

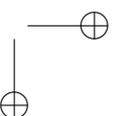
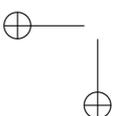
In the old paradigm, the roles of broadcaster and receiver are clearly divided; but in the new paradigm subjects have melted those roles into one and only character, which is, simultaneously, producer, broadcaster, and receiver of information.

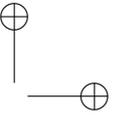
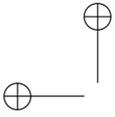
Old media gather their credibility from authority and an arduously built brand name, affecting likewise the medium and those who report there; while in new media credibility/authority derives from the ongoing communication process, and of the quality of the *collective intelligence* that is established there.

In old media identities are rigid and pre-established; in the new media we find the opposite: the flowing and fragmentation of fluid identities is the rule.²⁶

In traditional media the *agenda-setting* process is limited and rigorously controlled by broadcasting instances, but in new media the agenda-setting is no longer a monopoly, it's an open, participated process, determined by the interest of communicating masses.

26. For more on the www and identities, cf. **TURKLE**, Sherry. *Life on the screen - identity in the age of the internet*, Phoenix (Orion Books Ltd), London, 1997.



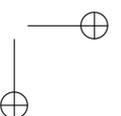
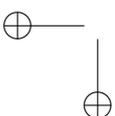


Last, old media employ, or try to employ, a careful and conventional use of language, one that stands as close as possible from the traditional language canon; whilst on the web we're witnessing all the time the emergence of new languages, or new uses for old words, with the clear purpose of distancing itself from the traditional language patterns (such is the case of SMS dialect, for instance). Also, new languages emerging on the network are complemented with multimedia elements that have become the norm, and are absent in traditional usages. Such multimedia elements are used to overcome the pragmatic deficit CMC entangles, and can take up many forms, since avatars, emoticons, animated gifs, which are used to underline some pragmatic aspects of the message.

All these characteristics of the new style of communication on the web, and that are already a part of anyone's presence there, are a confirmation that the paradigm shift Pierre Lévy foreseen has actually taken place, and the main symptom of this change is the new indistinguishable status of producer and information consumer. The new paradigm of mediated communication is real, for digital natives, is the only one they know, and the years to come will probably bring new depth and new configurations to it, for, as William Gibson said, «*the future is here. It's just not widely distributed yet*».

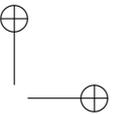
Bibliography:

- AA.VV.** *A Sociedade de Informação em Portugal 2006*, UMIC e INE,
http://www.osic.unic.pt/publicacoes/sociedade_da_informacao.pdf
- AA.VV.** *A Sociedade da Informação em Portugal 2006/The Information Society in Portugal 2006*, Actualização do Capítulo II – A População e as TIC, in
http://www.osic.unic.pt/publicacoes/Cap2_Pop_Port_Eng_VF.xls
- ARISTÓTELES.** *Política*, 1988, ed. bilingue, col. Ciências Sociais e Políticas, Editorial Vega, Lisboa.
- CARBONE, Maria.** «*Paving the way towards the information society*»; I & T Magazine, nº 17, July 1995.
- BARNES, Susan.** «The presentation of the self: theories and Methods», comunicação apresentada nas Jornadas «CMC, Identidades e Género», realizadas na Universidade da Beira Interior em Abril de 2005.



- BAYM**, Nancy. «The emergence of on-line community», in *Cybersociety: revisiting CMC and Community*, ed. Steve Jones; Sage Publications, London. 1998.
- BELL**, David. *An Introduction to Cybercultures*, London: Routledge. 2001.
- BELL**, David & **KENNEDY**, Barbara. *The Cybercultures Reader*, London: Routledge. 2000.
- BEMMEL**, Jan van. «Future world of information systems». *European Hospital Management* Winter 94/95.
- BURBULES**, Nicholas. «Rhetorics of the web: hyperreading and critical literacy», in *Page to Screen – taking literacy into the electronic era*, ed. Ilana Snyder, Routledge, London. 1998.
- BURNETT**, Robert & **MARSHALL**, David. *Web Theory – An Introduction*, Routledge, London. 2003.
- CARDOSO**, Gustavo. *Para uma sociologia do ciberespaço*. Edições Celta. Lisboa. 1998.
- CASTELLS**, Manuel. *A Era da Informação: Economia, Sociedade e Cultura – A Sociedade em Rede*, Vol. 1, S. Paulo: Paz e Terra. 1999.
- COSTIGAN**, James T. «Forests, Trees and Internet Research», *Doing Internet Research – Critical Issues and Methods for Examining the Web*, ed. Steve Jones, Sage Publications. London. 1999.
- DANET**, Brenda. «Text as Mask: Gender, Play, and Performance on the Internet», in *Cybersociety: revisiting CMC and Community*, ed. Steve Jones. Sage Publications. London. 1998.
- DE KERCKHOVE**, Derrick. *The skin of culture investigating the new electronic reality*, Somerville House Publishing, Toronto. 1995.
- DE KERCKHOVE**, Derrick. *Connected Intelligence: the arrival of the web society*, Toronto, Somerville House Books, 1999.
- FERNBACK**, Jan. «The individual within the Collective: Virtual Ideology And the Realization of Collective Principles», in *Virtual Culture, Identity and Communication in Cybersociety*; ed. Steve Jones. Sage Publications. London. 2002.
- FERNBACK**, Jan. «There is a There There: Notes Toward a Definition of Cybercommunity», in *Doing Internet Research – Critical Issues and*

- Methods for Examining the Web*, ed. Steve Jones, Sage Publications. London. 1999.
- HACKING**, Ian. *Rewriting the Soul – Multiple Personality and the Sciences of Memory*. Princeton University Press, New Jersey. 1995.
- HARRISON**, Theresa. «Researching and creating community networks», in *Doing Internet Research – Critical Issues and Methods for Examining the Web*, ed. Steve Jones, Sage Publications. London. 1999.
- HARVEY**, Pierre-Léonard. *Ciberespaço e Comunautéica – Apropriação. Redes. Grupos Virtuais*, Instituto Piaget. Lisboa. 1995.
- JORDAN**, Tim. *CyberPower – The Culture and Politics of Cyberspace and the Internet*. Routledge, London. 1999.
- JONES**, Steve. «Information, Internet and Community: Notes toward an understanding of community in the information age», in *Cybersociety: revisiting CMC and Community*, ed. Steve Jones. Sage Publications. London. 1998.
- JONES**, Steve. «Studying the Net –Intricacies and Issues», in *Doing Internet Research – Critical Issues and Methods for Examining the Web*, ed. Steve Jones. Sage Publications. London. 1999.
- KENDALL**, Lori. «Recontextualizing Cyberspace: Methodological considerations for on-line research», in *Doing Internet Research – Critical Issues and Methods for Examining the Web*, ed. Steve Jones, Sage Publications. London. 1999.
- KOCH**, Tom. *The Message is the Medium – Online All the Time for Everyone*, Praeger Publishers. Westport. 1996.
- KOLKO**, Beth. «Dissolution and Fragmentation: Problems in on-line communities», in *Cybersociety: revisiting CMC and Community*, ed. Steve Jones. Sage Publications. London. 1998.
- KRESS**, Gunther. «Visual and Verbal modes of representation: the potentials of new forms of text», in *Page to Screen – taking literacy into the electronic era*, ed. Ilana Snyder. Routledge. London. 1998.
- LEINER**, Barry & **CERF**, Vinton, *et. al.* A brief History of the Internet. <http://www.isoc.org/internet/history/brief.shtml#Community->



- LÉVY, Pierre.** *As tecnologias da inteligência – o futuro do pensamento na era informática*, col. Epistemologia e Sociedade. Instituto Piaget. 1990.
- LÉVY, Pierre.** *O que é o virtual*, Editora 34, São Paulo, 1996.
- LÉVY, Pierre.** *Cibercultura – Relatório para o Conselho da Europa no quadro do Projecto «Novas tecnologias: cooperação cultural e comunicação»*, Lisboa: Instituto Piaget, Col. Epistemologia e Sociedade, nº138. 2000.
- O’DONELL, James Joseph.** *Avatars of the Word : From Papyrus to Cyberspace*, Harvard University Press. Cambridge. 1998.
- PEARCE, Celia.** *The Interactive Book: A Guide to the Interactive Revolution*, Macmillan. New York. 1997.
- PINHO, Márcio Serolli & KIRNER, Cláudio.** *Uma Introdução à Realidade Virtual*. sd. <http://grv.inf.pucrs.br>
- PORTER, David.** *Internet Culture*. Routledge. London. 1997.
- RHEINGOLD, Howard.** *The Virtual Community – Homesteading on the Electronic Frontier*. Addison-Wesley Publishing Company, sd.
- RHEINGOLD, Howard.** *Virtual Reality*, Summit Books/Simon & Schuster, New York, 1991. <http://www.rheingold.com>
- SCHEER, Léo.** *La démocratie virtuelle*, Flammarion, Paris. 1994.
- TURKLE, Sherry.** *Life on the screen - identity in the age of the internet*, Phoenix (Orion Books Ltd), Londres, 1997.
- WOOLEY, Benjamin.** *Virtual Worlds: a journey in hype and hyperreality*, Penguin Books, New York, 1993.

