

# I. THE GENERAL ANTHROPOLOGICAL METHODOLOGY OF INTERNET: MUTATIONS OF THE HUMAN PERSON IN THE MIND, ACTION, EMOTIONALISM?

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## INTRODUCTION: THE INEVITABLE ASPECT AND INSTRUMENTAL CONDITIONING AND TECHNOLOGICAL IN THE ANTHROPOLOGICAL PERSPECTIVE

The question that remains open, as for the whole of multimedia, regarding the impact of Internet on the human person.<sup>1</sup> Also here, it passes from a position that considers the multimedia only as 'means, 'instruments' and 'technical machines, to a position that exalts the 'technological progress', although the experts appear to be more prudent in considering the technology as a kind of 'religion or to treat with 'religious devotion'.<sup>2</sup> It notes an initial and diffused apathy regarding to the full involvement in the net (as it is noted many times with the apparition of new potentiality or multimedial platforms) also because of the necessary knowledge and of the practical ability to purchase to enter into the cibernautic scenery.<sup>3</sup> If wanted to characterize the specificity of

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<sup>1</sup> PONTIFICAL COUNCIL FOR SOCIAL COMMUNICATIONS, *Ethics in Internet*, in «Internet» 2002, [http://www.vatican.va/roman\\_curia/pontifical\\_councils/pccs/documents/rc\\_pc\\_pccs\\_doc\\_20020228\\_ethics-internet\\_en.html](http://www.vatican.va/roman_curia/pontifical_councils/pccs/documents/rc_pc_pccs_doc_20020228_ethics-internet_en.html): «3. As with other media, the person and the community of persons are central to ethical evaluation of the Internet. In regard to the message communicated, the process of communicating, and structural and systemic issues in communication, "the fundamental ethical principle is this: The human person and the human community are the end and measure of the use of the media of social communication; communication should be by persons to persons for the integral development of persons" (1)».

(1) Cf. PONTIFICAL COUNCIL FOR SOCIAL COMMUNICATIONS, *Ethics in Communications*, n. 21.)

<sup>2</sup>Cr. Scott, *The Challengers*, in AA. VV., *Essays. The Information Age*, in «Internet» 2002, <http://www.ac.wvu.edu/~n9443139/Ellul3.html>: «Not everyone shared the rosy view of this technological future. Two main figures rose to challenge the path humanity is paving for itself. Jacques Ellul, a former professor at the University of Bordeaux, and Neil Postman, the head of Culture and Communications at New York University, both warned against an overreliance upon information and the technology to bring it to the masses. Ellul, a Christian, warned that technology was becoming a religion unto itself. People are blindly accepting technology; indeed, Ellul said, technology was now what humanity holds sacred.1 In doing so, humans are making themselves slaves to it: the controllers are themselves becoming controlled by their creations. Technology is becoming a defining force for the ensuing social order, wherein efficiency is no longer an option but a necessity. Humans have begun to seek always the most perfect solution, he said, and thus are allowing technology -- efficient by definition -- to think for them. Postman agrees that technology cannot -- and should not -- replace human values. Thinking should always be done by humans, they said, and that is exactly what is being left behind as mankind strolls down Vice President Al Gore's information superhighway. Ellul observed younger generations being trained to use computers, yet never trained in the thinking behind the computers. Postman said computers actually stifle creativity; they haven't produced any great social, political or religious thought on par with the printing press. Indeed, Postman said, "we may well wonder what other human skills and traditions are being lost by our immersion in a computer culture."2 Not only do computers rob us of jobs formerly held by humans, but computers can actually rob humans of basic math skills. This overreliance on technology to think for us can create a new form of red tape. In his book, *Technopoly: The Surrender of Culture to Technology*, Postman describes how doctors now perform sometimes unnecessary tests to avoid malpractice suits. This causes doctors to lose their ability to conduct skillful examinations and rely more on machinery than their own experience and insight.3 Ellul agreed that technology has begun to diminish the value of humans. When the machines are trusted more than the opinion of a well-trained doctor, the role of the doctor shifts from that of a diagnostic to an intermediary between patient and machine. While machines and technology were created to better human life, overreliance is against Christian theology, he said. "Whereas technology is the attempt of human beings to create their home in this world, the Bible denies that they are truly at home here."4 Or less theologically, technology reduces the need for people to think."We have reduced our role to that of a spectator whose task is not to understand or interpret but to observe. This point is greatly supported by Postman, a noted media critic. He says the growth of technology is merging technology and entertainment to the point where younger generations almost expect the two to go hand in hand; he cites *Sesame Street* as an example of this "infotainment."5 For adults, TV news -- the largest purveyor of information for most First World adults thanks to the ubiquitousness of TV technology - removes the context of events and thus creates a belief that no matter how bad an event is, it will soon be forgotten and replaced by a happy commercial.6 The attention span of the TV culture has decreased drastically since the times of the Lincoln-Douglass Debates, wherein ordinary people sat enthralled by the talks for some seven hours».

(1 "Jacques Ellul (1912-1994)" Dec. 25, 1995. / 2 Yeap. Class notes, January 1998. Address Pending. / 3 Stewart, Mary Beth. Review of Neil Postman's *Technopoly* March 6, 1997. / 4 "Jacques Ellul (1912-1994)" / 5 Pieprzak, Jody Kay. "Amusing Ourselves to Death ( review)." April 3, 1997. / 6 "Prelude to Vegas: Neil Postman gets interviewed." Aug. 29, 1997.)

<sup>3</sup>B. Schwimmer, *Anthropology on the Internet*, in «Current Anthropology», Volume 37, Number 3, June 1996, pp. 566-567, etiam in «Internet» 2006, <http://www.journals.uchicago.edu/CA/articles/prospects.html>: «The most obvious barrier to the development of computer based scholarship is of course the reluctance or inability of anthropologists to learn to use and develop this new technology. Although most academics now own computers and have come to find them indispensable for their writing, actual use is limited to a few applications which take little advantage of the technology's full potential (Bernard and Evans 1987). Computer use has been restricted to word-processing and statistical analysis. Exploration on the network, which can require arcane knowledge of e-mail keystrokes or UNIX commands, is approached with extreme caution. Experimentation is resisted not only because of the time and effort required but also by phobias that, surprisingly, affect academics to the same extent as everyone else. These problems are compounded by the current pace of technological change, which promises that by the time new hardware, software, or skills have been

Internet, it could be said that it means the compenetration of the human experience between 'online' and 'offline' (in the actual language, or-that is – 'in line to distance' or 'interpersonally',<sup>1</sup> loosening the 'watertight vase' of the closed 'virtual' 'on itself and confined in the 'unreal' circle.<sup>2</sup> The prognostications on the incidence of Internet orient itself in three directions: or a restriction of the use to certain elites or an evaporation of the barriers through the diffusion or a chaos both of access and of quality in the exchanges and in the research.<sup>3</sup>

### *The new technologies of the information and communication in the net*

A first aspect in the way of realization: with the miniaturization it extends the velocitation of the connectivity to distance: computers and an Internet to average prestations and an Internet to high speed.<sup>4</sup> In the telecommunications it imposes a quadrinomio : private, mobile, transnational.<sup>5</sup> The

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acquired they will already have become obsolete. General problems of apathy and inertia are reinforced by the demographic structure of academia. Departments are dominated by faculty over 50 who see little advantage to making innovations in their final years of employment. Unfortunately, a diminishing job market has limited the entry of younger scholars, and those who do gain employment are too concerned about job security to deviate from the established paths of academic publication and success».

<sup>1</sup> E. Ardevol, *Cyberculture: Anthropological perspectives of the Internet. Using anthropological theory to understand media forms and practices workshop Loughborough, 9th December, 2005*, in «Internet» 2006, [http://www.philbu.net/media-anthropology/lboro\\_ardevol.pdf](http://www.philbu.net/media-anthropology/lboro_ardevol.pdf): «The counter part of these positions, most of which view Internet cultures as new cultural forms that elude offline social and cultural categories, allowing more democratic and collaborative models of social interaction in metaphysic communities, was the ethnographic work of Daniel Miller and Don S later, which situated online practices in relation with people daily life in a concrete cultural context. People construct online collective identities, but these online interactions could not be understood only in terms of a specific disembodied "virtual" culture. In fact, they said, these online groups only make sense in relation to offline social, political and cultural contexts. Breaking with the online/offline, real/virtual dichotomies was very useful to begin to understand online interaction as a part of daily life activities, as a social practice».

<sup>2</sup> Vedere come il documento del Pontificio Consiglio delle comunicazioni sociali situa il virtuale nella sua caratteristica di possibile danno per la persona individuale: PONTIFICAL COUNCIL FOR SOCIAL COMMUNICATIONS, *Ethics in Internet*, in «Internet» 2002, [http://www.vatican.va/roman\\_curia/pontifical\\_councils/pccs/documents/rc\\_pc\\_pccs\\_doc\\_20020228\\_ethics-internet\\_en.html](http://www.vatican.va/roman_curia/pontifical_councils/pccs/documents/rc_pc_pccs_doc_20020228_ethics-internet_en.html): «13. The medium's implications for psychological development and health likewise need continued study, including the possibility that prolonged immersion in the virtual world of cyberspace may be damaging to some. Although there are many advantages in the capacity technology gives people to "assemble packages of information and services uniquely designed for them", this also "raises an inescapable question: Will the audience of the future be a multitude of audiences of one?...What would become of solidarity—what would become of love—in a world like that?" (1)».

(1) Ethics in Communications, n. 29.)

<sup>3</sup> B. Schwimmer, *Anthropology on the Internet*, in «Current Anthropology», Volume 37, Number 3, June 1996, p. 567, etiam in «Internet» 2006, <http://www.journals.uchicago.edu/CA/articles/prospects.html>: «Contemporary anthropologists are now in the interesting position of experiencing, observing, and perhaps controlling a problem they have often attempted to understand -- technological change. The observations in this essay suggest that Internet expansion will not have a predetermined or straightforward effect on the social order and cultural values of academia. Three models of equal probability can be envisioned. One predicts a narrowing of opportunity and enhanced control by cultural and social elites as increasing costs and withdrawal of government support restrict opportunities for acquiring the necessary technology and information resources. A second promises an evaporation of traditional academic barriers and structures and the emergence of a new order marked by collaborative research and altruistic sharing of knowledge and benefits among all components of the scholarly community. The third warns of a chaotic system in which scholarship is trivialized by the disintegration of regulation and standards. At this point we can do more than passively observe the interaction of technological, cultural, and social forces within our own community. We can begin to appreciate the importance and power of the new forms of scholarship that are emerging, think about how we can use new technologies to construct intellectual and social objectives for our discipline, and create the necessary mechanisms and standards for realizing them».

<sup>4</sup> ADVISORY GROUP TO THE EUROPEAN COMMISSION, *The Future of the Internet - What Role for Europe? Interim Report of an Advisory Group*, <http://www.cordis.lu/esprit/src/i2eurepo.htm>: «Twin development pushes - High-performance Internet and Commodity Internet. The history of computing, and indeed of many other high-tech industries, has highlighted developments in two complementary directions. Computer vendors have always used technology advances both to reduce the cost of computers for constant performance, and to increase the performance available at constant price. The Internet is now showing a very similar behaviour. Supplying access for the general public to the "Commodity Internet" from their homes is obviously a very price-sensitive business, and today depends heavily on telephone or cable TV modems, which tend to have rather limited performance, but the size of the potential market is huge. On the other hand, universities and leading research institutes and companies have a real need to exploit the very highest-performance networking, as a way forward in fields such as distance learning, remote diagnosis, distributed collaborative engineering projects, and remote access to huge distributed databases. The past two years have shown that these twin pushes, towards the commodity Internet and towards a high-performance academic and research Internet, do not automatically fit together in an easy way. Specifically, the way in which bulk personal e-mail and Web-access traffic interferes with high-performance traffic, and especially with the real-time requirements of graphics and audio traffic, as all packets come together and flow across the major Internet switches and backbone lines, has led to significant congestion. Some of the recent American initiatives, and specifically the Internet2 initiative from the universities, emphasise the need now to separate out these traffic flows, and to develop better technical and commercial models for how Internet growth can be funded».

<sup>5</sup> COMMUNICATIONS TRENDS, *World Telecommunication Development Report 2002: 'Reinventing Telecoms' & Trends in Telecommunication Reform 2002: 'Effective Regulation'*, in «RFDESIGN», March 2002, etiam in «Internet» 2005, [http://rfdesign.com/news/radio\\_itu\\_offers\\_insights/](http://rfdesign.com/news/radio_itu_offers_insights/): «Telecoms Reinvented. Today's telecommunication world can be summarized in four words: private, competitive, mobile and global. Private - more than half of ITU Member States by the beginning of 2002, either fully or partially privatized their incumbent telecommunication operator. Even in countries that have not yet done so, the private sector accounts for an ever-greater share of the market thanks to new market entry through joint venture and licensing. Competitive - while a majority of countries still retain monopolies in fixed-line services, such as local and long distance calls, competition is wide spread. An overwhelming majority of countries now allow competition in the mobile and Internet market segments. Mobile - telecommunication services are increasingly mobile, that is, delivered by the medium of radio waves rather than over a fixed-line network. Global - many major telecommunication operators have holdings in operators in other nations. Countries are also choosing to enshrine their market liberalizing moves in treaty-level commitments, notably the World Trade Organization's basic telecommunication agreement. In addition, operators are offering

(N)TICs push the human experience toward the virtual '(person, society, sensibility).<sup>1</sup> Certain frontiers space-storms fade away. The external "hardware" sets out to become flexible support and also physiological, connected and fed by the corporal nervous loads.<sup>2</sup> The machinery of the (N)TIC subsequently becomes auto-imparant (able to learn from itself).<sup>3</sup> It auto-adapts itself to the human and not the human is conditioned to the machinery. With the extension of the 'wireless' it frees us of the fixity of cables and desks, up to the public services.<sup>4</sup>

### *The anthropological incidence*

It is known that the introduction of the multimedial communication in distance within the anthropological research has sometimes been judged, as 'technological reductionism' even if certainly the impact of the technologies is undeniable -particularly of the technologies of the information (IT) - on the person and on the human community, or better on the complex human experience.<sup>5</sup> But there are also the analogies that are discerned among the internet connectivity and

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new services such as global roaming, satellite systems and calling cards. Future third-generation (3G) mobile services have been designed from the start to be global rather than national in scope».

<sup>1</sup>Th. P. Novak – D. L. Hoffman, *Bridging the Digital Divide: The Impact of Race on Computer Access and Internet Use*, (Project 2000, Vanderbilt University, February 2, 1998. This Working Paper is a longer version of the article, "Bridging the Racial Divide on the Internet," published in *Science*, April 17, 1998), in «Internet» 2002, <http://www2000.ogsm.vanderbilt.edu/papers/race/science.html>: «Introduction. That portion of the Internet known as the World Wide Web has been riding an exponential growth curve since 1994 (Network Wizards 1998; Rutkowski 1998), coinciding with the introduction of NCSA's graphically-based software interface Mosaic for "browsing" the World Wide Web (Hoffman, Novak, and Chatterjee 1995). Currently, over 29 million hosts are connected to the Internet worldwide (Network Wizards 1998), and somewhere between 60 to 75 million adults (CyberAtlas 1998) in the United States alone have access to around 320 million unique pages of content (Lawrence and Giles 1998), globally distributed on arguably one of the most important communication innovations in history. Enthusiasm for the anticipated social dividends of this "revolution in democratic communication" (Hoffman 1996) that will "harness the powerful forces of science and technology"(Clinton 1997a) for all members of our society appears boundless. The Internet is expected to do no less than virtually transform society. Nowhere is this confidence expressed more clearly than in President Clinton's aggressive objective to wire every classroom and library in the country by the year 2000 (NetDay 1998), followed by every home by the year 2007, so that "every 12-year-old can log onto the Internet" (Clinton 1997b)».

<sup>2</sup>J. Strehovec, *Theories of Internet Culture and Internet Textuality*, in «Internet» 2002, <http://www2.arnes.si/~ljzpubs1/theories.htm>, citato sopra.

<sup>3</sup>NATIONAL ICT AUSTRALIA LIMITED (NICTA), Theme: Intelligent Systems. Statistical Machine – Learning, in «Internet» 2005, [http://nicta.com.au/uploads/documents/Statistical\\_Machine.pdf](http://nicta.com.au/uploads/documents/Statistical_Machine.pdf): «Hallmark of an intelligent system is that it can learn. Certainly, the development of ICT products and processes that are more usable, able to hide their sophistication behind simpler interfaces, that can make use of the information in vast databases, and that adapt to different environments and different users, will require machine-learning technology. Statistical machine learning can be viewed as an outgrowth of classical signal processing, statistics and pattern recognition. The techniques used now are much more diverse and include methods to solve problems going far beyond classical pattern recognition. It is an essential technology to deal with data glut, for instance, to find structure in datasets and to find unusual events».

<sup>4</sup>SINGAPORE GOVERNMENT, *Equipping public officers. For an e-Government through ICT Education*, in «ISSUE», 6 August 2002, etiam in «Internet» 2005, 69CE062ACAD9/0/E\_GOVVERNEMENT\_NEWSLETTER\_AU.PDF: «Wireless technology is about delivering the Internet to an individual without the need for wires and desks. It is about knowing who the individual is, where he or she is, and what he or she needs to know most urgently...Currently, wireless adoption has mainly been in the area of government informational services such as policies, frequently asked questions, operational hours and directory lists, which may not require a high degree of security and transactions. The advantage of beginning with informational services is to allow government employees and the public to be accustomed to using their mobile devices for accessing government services in preparation for new and more feature rich services. However, as mobile technology evolves and expectations rise, it would be pertinent that the public sector continues to keep up with new technology to maintain the high standards of its services available today. It would not be too long when accessing government services through all kinds of wireless devices is the way of life».

<sup>5</sup>G. Houtman – D. Zeitlyn, *Information technology and anthropology*, in «Anthropology Today», Vol. 12, No. 3, June 1996, p. 1, etiam in «Internet» 2006, <http://www.therai.org.uk/pubs/at/editorial/zhoutman.html>: «Guest editorial in *Anthropology Today*, Vol. 12, No. 3, June 1996, pp. 1-3 To suggest that information technology (IT) – the branch of technology concerned with the dissemination, processing, and storage of information, especially by means of computers – might yet significantly shape the discipline attracts the accusation of technological reductionism. MacLuhan may be regarded, in today's language, as something of a 'Nerd'. (1) Yet print-technology permitted the emergence of new religions and new scientific disciplines. Evidently, the more technology is integrated into everyday life, the less we seem to be paying attention to it for there are hardly any contemporary studies of the social and cultural effects of the technology of print. (2) There is considerable literature on particular roles for IT in anthropology, but very little of it focuses on the broad implications for the discipline. IT is making its impact felt on anthropology as a discipline at several different – but mutually dependent – levels. Apart from having become something of a sub-discipline in itself – e.g. as in the anthropology of cyberculture (Escobar 1994) – here we identify its impact on the discipline more broadly in terms of data, methodology, and subject-matter. The way we acquire, record, transmit and publish data has changed enormously over the last decade. This parallels the involvement of photography and film in the discipline in the early 1960s, and Polunin's summary of the state of visual anthropology in 1970 could serve for computing in the 1990s. (3) Just as uptake of devices such as small portable cameras and, most importantly, the portable cassette recorder, had radical implications for the conduct of anthropological research, so the portability of information technology facilitates not only collection of visual and aural data, but its integration with fieldnotes on a scale not previously possible. Such technologies truly facilitate the move from the verandah to the field and permit collection of a richer variety of data».

(1) 'Nerd' is a term invented by Dr. Seuss in *If I ran into the zoo* in 1950, where it represented a small comically angry-looking and unpleasant humanoid creature – 'And then, just to show them, I'll sail to Ka-Troo And Bring Back an It-Kutch a Preep and a Proo a Nerke a Nerd and a Seersucker, too!'. Initially popularised in the 1970s as a reference to uninteresting persons, as the information technology revolution turned playful hippies into serious businessmen, later films such as *Revenge of the Nerds* granted them intelligence as bespectacled, but unathletic maths student wizards (in opposition to the athletic and sportive jovial 'jock') who turn the world upside down with their wizardry. / (2) Eisenstein's magisterial start (1979) has not been followed up by similar anthropological studies. / (3) The role of computers in anthropology has been addressed as early as 1951

the relationship among the human person and its natural environment or among the human beings: take the example of the 'contagious' by biological virus or likewise from computer virus, that reproduce and they auto-clone themselves.<sup>1</sup> It is born however-despite the reluctance of some - a ciber-ethnography based on the research diversified in the circles to explore.<sup>2</sup> It also speaks of "netnography."<sup>3</sup> It will also speak of 'ciber culture' in different senses.<sup>4</sup> The implication that is gathered here is-obviously - the evaluation of the same way of Internet to anthropological level: only a 'tool' with which to play or not it has desire or a level of human experience that it discloses in itself and that it interests all the aspects of the human life?

### *The dualist argumentation*

The least enthusiastic approach on the phenomenon of Internet that will rise up against an easy optimism and in this, it is not certainly useless. But often, behind it, it stirs a mental tactic that dualize the scenery and the landscape: it is inside or it is out... that is inside completes everything without being us as the television allowed to see of everything without being us.<sup>5</sup> If Internet is the

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(Thieme), though the role of minesweepers is no longer discussed (Rowe 1953: 912). Fischer (1994:1-2) discusses the related theme of how distinctively 'anthropological' computing in the discipline should be.)

<sup>1</sup>R. Robertson, *Computer Viruses and the Human Mind*, in «Internet» 2006, <http://www.goertzel.org/dynapsyc/1997/virus.html>: «HOW DO COMPUTER VIRUSES WORK? Given that analogy between the human mind and the computer, let us look at the behaviors of computer viruses for analogies to problems with the mind. First, just what is a computer virus? John McAfee, one of the foremost experts on computer viruses, defines a virus as: a computer program created to infect other programs with copies of itself. It has the ability to clone itself, so that it can multiply, constantly seeking new host environments. That may be all it does—a single mission to replicate and spread from one system to another. Or the virus program may be written to damage other programs, alter data, and then perhaps self-destruct, leaving no evidence of itself behind, so that defenses cannot be developed against it. (McAfee & Haynes, 1990:1). Thus computer viruses are much like biological viruses: a half-way point between life and non-life. They have the minimum requirement of all known living creatures: the ability to replicate themselves. They have enough intelligence to recognize their environment as friendly or hostile, and to take corresponding action. I think most people who aren't familiar with computers would be astonished to be told that any computer program could do even those two things. If they knew the full extent of the astonishing facility displayed by computer viruses, I think that astonishment might change into fear, fear not only of computer viruses, but of the future of computers. But that fear should really be turned back on the mind doing the fearing, because it is subject to the same attacks as a computer».

<sup>2</sup> Kether, *LIFE ON THE BORDER: METHODOLOGY, CHAPTER 4. METHODOLOGY. 4.1. Ethnography*, in «Internet» 2006, <http://www.kether.com/words/thesis/method.html>: «Dr. Sherry Turkle (1995), in researching her own work, spent a great deal of time observing, in person, the way that people interact with computers. She worked in places like computer labs, classrooms, and scientific conferences. Turkle has chosen not to present her findings unless she has met the informant in person. Her reasons for this include: I made this decision because of the focus of my research: how experiences in virtual reality affect real life, and more generally, on the relationship between the virtual and the real. (Turkle, 1995: 324) However, she goes on to recognize that researchers with different aims may legitimately employ different methodologies: In this way, my work on cyberspace to this point is conservative because of its distinctly real-life bias. Researchers with different interests and theoretical perspectives will surely think about this differently. (ibid: 324) Anthropologist Steve Mizrach (1994), in his paper on Computer "hackers" and their language, presents an entirely different point of view. Because his research involved an underground group who were engaged in some illegal or quasi-illegal activities, he found it necessary to conduct his research entirely in the virtual. Beyond this, however, he suggests other reasons for doing so: From an emic perspective, many of our subjects do not distinguish between "real" life and "virtual" life. As good ethnographers and participant observers, we should not make such seemingly "etic" distinctions in the face of our informants. If they spend more of their waking time in cyberspace than in "real life", who is doing the more honest ethnography? The cyber-ethnographer, or the person who ignores that part of their life to which they devote the most time? ... As good cyber-ethnographers, we should be just as willing to examine the sociocultural relations in "cyber" society as we do in "real" society. ... Where people invest meaning, the anthropological interpreter should go; and people do invest great meaning into cyberspace. (Mizrach, 1994: 1-2) ».

<sup>3</sup> M. Giesler – M. Pohlmann, *THE ANTHROPOLOGY OF FILE SHARING: CONSUMING NAPSTER AS A GIFT*, in «Internet» 2006, <http://visionarymarketing.com/articles/gieslerpohlgift.html>.

<sup>4</sup>E. Ardevol, *Cyberculture: Anthropological perspectives of the Internet. Using anthropological theory to understand media forms and practices workshop Loughborough, 9th December, 2005*, in «Internet» 2006, [http://www.philbu.net/media-anthropology/lboro\\_ardevol.pdf](http://www.philbu.net/media-anthropology/lboro_ardevol.pdf): «Cyber-culture? What do we mean by "cyberculture"? When I decided to study Internet from an anthropological view, in the 90ties, the term "cyberculture" was on the arena. On one hand, people were using, and still use, the prefix "cyber" to refer to activities and social movements carried out through Internet, such as "cyberactivism", "cybercafe", "cyberart", etc. It seems that the word "cyberculture" pretends to be a new concept to put together all these activities. On the other hand, "cyberculture" was used by some scholars as a concept for understanding Internet impact on society, such as the proposal of Pierre Levy. Finally, "cyberculture" referred to a new interdisciplinary field of research, defined by the cultural analysis of communication and information technologies. My question then, was how to understand the multiplicity of studies that take a cultural perspective in their approach... The map of Internet galaxy studies has four attractors: a) Cyberculture as a new cultural model based on Internet technology, b) as an Internet emergent culture, c) as the cultural products developed in the Internet, and d) as a media form. These four elements are drawn down by using four coordinates or main trends in conceptualizing culture: culture as an adaptive strategy, as a system whole, as a symbolic order and as signifying practice. These different cultural perspectives also can be related with four principal focus of research in cyberculture studies: a) Internet as a technology, b) Internet as a new social context, c) Internet as a new creative and collaborative tool, c) Internet as a medium of communication (see table below). Let us see each constellation in more detail».

<sup>5</sup> St. L. Talbot, *Can Human Ideals Survive the Internet?*, in idem, *The Future Does Not Compute: Transcending the Machines in Our Midst*, New York 1995, Ch. 1, etiam in «Internet» 2006, <http://www.praxagora.com/stevev/fdnc/ch01.html>: «A prison window. If the television has proven an ideal instrument for scattering and weakening my powers of attention and my ability to be fully present, the networked computer promises to challenge me more radically still. Where television leads me through an endless kaleidoscope of passive experiences without any possibility of my being "all there" in any of them (I cannot react in any normal way to the accident shown on the screen, so I learn to blunt my powers of presence and response), the computer invites me to carry out even the active business of my working and social life without being all there. I may revel in the fact

mixture of the interpersonal and the distance relationality, of the online-offline, the things don't limit to this dualism: to be 'inside the jail with the small window or out in the authentic life (*ibidem*).

### A. A DIFFERENT TYPOLOGY OF HUMAN PERSON

More and better than earlier, in Internet all the sectors multimedia articulate in forming a system of various and manifold launchings:<sup>1</sup> a "nervous system",<sup>2</sup> interlacement between mind and body, between action and reflection in the form of 'communicative system'.<sup>3</sup> There are analogies among the nervous system and cultural workings to explore in the neuro-cultural research,<sup>4</sup> keeping in mind of the three neurological levels - anatomy, operativity, behavior - that correspond to the three concentric cultural searches: that multimedia communicational, that of the social institutions and that of the artistic-aesthetics productions.<sup>5</sup> The mental intent studied at the neuro-cultural level introduces, besides, three moments of stimulation: perception, memory, concept.<sup>6</sup> The tripartite

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that all of cyberspace, offering all its manifold transactions, is available through this small window on my desk. It is well to remember, however, that until recently most windows mediating the world to us in such a restrictive fashion had steel bars in them. Not many welcomed the prison. Some prisoners, it's true, have reported sublime experiences when catching a rare moment's glimpse of a bird through a narrow slit open to the sky. But it seems enough today if the window is glazed over with phosphors, so that we can divert ourselves unremittingly with the wonders of 3-D graphics, imagining that we are free to go wherever we wish. /1/ No doubt we *can* structure our lives and society so as to conduct all important business upon the surface of this small window. In outward terms, Vinton Cerf's claim may then become true: anyone disconnected from the Net will be isolated from world community. But even then, we must hope there will remain someone for whom the world hidden behind the glossed-over window is not altogether forgotten. Someone for whom the bird-shaped collection of illuminated pixels invokes the faint memory of a living creature with seeing eyes and beating heart -- and for whom the difference between image and reality has not yet faded into mistiness. Someone for whom a routine financial transaction can still be an expression of trust. Someone for whom strong feeling has not finally been reduced to the vacuity of an email flame. One reason the computer's invitation to scattering -- like television's -- is so strong, is that everything appearing on the surface of this small window remains an abstract representation of the unseen world beyond the window. When the world is presented to us at such a great remove, we require a heroic effort of imaginative reconstruction to avoid slipping by degrees into a habit of treating the representations on the window surface in the half-conscious, reflexive manner typical of the video game player. There is good reason for thinking that television has made this effort of imaginative reconstruction more difficult. The computer, by letting us enter a gamelike world even while conducting our business, may be making the effort nearly impossible».

(1. For discussion of common issues presented by computers and television, see chapter 14, "Children of the Machine," and chapter 25, "What This Book Was About." )

<sup>1</sup> N. George, *D' Einstein à Teilhard*, Paris 1964, p. 191 : «Tout le reste, l'imprimerie, le télégraphe et le téléphone, la radio et la télévision, les réseaux routiers, les lignes maritimes, ferroviaires et aériennes, les liens économiques, culturels et politiques sont autant de fibres, de prolongements et de neurones de l'immense système qui innerve la couche humaine répartie à la surface de la Terre et par lequel des impulsions psychiques peuvent se transmettre qui rendent solidaires les unes des autres chacune des «cellules» de la société».

<sup>2</sup> M. McLuhan, *Understanding Media*, London 1964, pp. 368, 168.

<sup>3</sup> M. Boegner, *Cette presse malade d'elle-même*, Paris 1973, pp. 81, 80.

<sup>4</sup> D. De Kerckhove, *Introduction à la recherche neuroculturelle*, in D. De Kerckhove-A. Iannucci, *McLuhan e la metamorfosi dell'uomo*, Roma 1984, p. 175: «La recherche neuroculturelle suit simultanément les deux orientations que son nom désigne, la voie neurologique et l'investigation culturelle. Sur le plan neurologique, il faut distinguer, comme le recommande Changeux, au moins trois niveaux d'analyse: «1) *l'anatomie*: le réseau de neurones, 2) *l'activité*: les trains d'influx nerveux qui circulent dans le réseau de neurones de manière spontanée ou évoqués à la suite d'une interaction avec l'environnement, et 3) *le comportement*: les actions de l'organisme sur l'environnement». Ce troisième niveau comprend aussi «les signaux que l'organisme reçoit par ses organes sensoriels»<sup>1</sup>. Pour inclure les correspondances avec les phénomènes culturels, en dépit des sens techniques que ces mots peuvent prendre ailleurs, je propose de répartir la matière selon quatre niveaux d'exploration: les ordres anatomique, physiologique, psychologique et culturel».

(<sup>1</sup> TLTA-278. A. Danchin présente cette tripartition en termes légèrement différents: «Pour décrire les capacités du système nerveux individuel, il est commode de distinguer trois niveaux: la structure du système, c'est-à-dire son organisation spatiale, avec les différents types de cellules et de connexions; son fonctionnement, c'est-à-dire les règles qui définissent la production et l'intégration de l'activité électrochimique du réseau nerveux, et enfin son comportement, c'est-à-dire la façon dont un individu contrôle, à l'aide de son système nerveux, son interaction avec son environnement» (LaR-348).)

<sup>5</sup> D. De Kerckhove, *Introduction à la recherche neuroculturelle*, in D. De Kerckhove-A. Iannucci, *McLuhan e la metamorfosi dell'uomo*, Roma 1984, p. 177: «*Les indicateurs neuroculturels* Pour le côté «culturel» de la recherche, le domaine complémentaire de ces interactions neurologiques est l'ensemble des formes culturelles, c'est-à-dire les *extériorisations* suscitées par les innovations bio-technologiques. Ici, comme dans l'ordre biologique, les formes foisonnent. Comment trouver un ordre de priorités, des cadres de référence dans ce chaos de signes? Le niveau neuro-culturel privilégie trois champs d'investigation, les *techniques de communication* pour leurs effets neurophysiologiques, les *institutions sociales* pour identifier les modèles psychologiques, et enfin *l'art et les productions esthétiques* pour y trouver les signes les plus articulés des nouvelles configurations sensorielles engendrées par les technologies. C'est également dans les formes artistiques que s'expriment d'abord les crises que le choc des technologies nouvelles contre les anciennes suscite dans la culture».

<sup>6</sup> D. De Kerckhove, *Introduction à la recherche neuroculturelle*, in D. De Kerckhove-A. Iannucci, *McLuhan e la metamorfosi dell'uomo*, Roma 1984, p. 167: «*L'objet mental*» écrit Changeux, «est identifié à l'état physique créé par l'entrée en activité (électrique et chimique), corrélatée et transitoire, d'une large population ou «assemblée» de neurones distribués au niveau de plusieurs aires corticales définies » (HN 186). La configuration dessinée par l'ensemble des neurones mis en activité serait une sorte de «graphe neuronal». Changeux imagine trois types, ou plutôt trois variations de l'objet mental à partir d'une même *parenté neurale*. L'élément de base, le «bloc de construction» tiré de l'expérience immédiate de l'environnement est le *percept*. C'est un graphe neuronal qui est produit dans le cerveau par la corrélation sélective de stimulations extérieures. Plus autonome, *l'image de mémoire* diffère du percept en ce qu'elle est évoquée par un mécanisme interne de rappel (qui n'est pas encore identifié) et qu'elle n'affecte pas les aires corticales réservées aux stimulations externes. Enfin le *concept* est, pour ainsi dire, le «produit fini» du processus de fixation mentale, c'est un graphe neuronal qui est pratiquement dépouillé de ses références sensorielles, mais qui est enrichi par une très grande connectivité<sup>1</sup>».

convergence finds again in the three fundamental anthropological keys: reason (intellect), action, emotion.

## THE FRONTIER SPACE-STORM OF THE LIVING PERSON

The knowledge of the anatomical configuration, of the operational activity, and of the emotional behavior, converges in the knowledge of the communicative multimediality, of the operativity of the social institutions, of the artistic sensibility (cfr here above). The human person is an organic bundle of nervous impulses in an ample 'net of nervous communicational impulses. The individual refolding on himself becomes less defensible. The connectivity of the and among the impulses appears to be fundamental. The given characteristic would be that all of this realizes not through the 'nervous cell, but thanks to the 'contact' among the cells in their connections report (the sinassis) of the central nervous system.<sup>1</sup> The connections are not predetermined by the genetic formulation, but they rise from the trial report some human experience, particularly in the cultural ambientation, overcoming so a 'Darwinian approach' in the neuro-cultural research.<sup>2</sup> It sets the question of the frontier among the 'impulses that I am' and the 'impulses that are the other', and way of saying. The intrinsic relationality and that extrinsic are crossed. The 'bodily shapes of the 'now' and of the 'here' don't succeed in containing the proper of the person.

## THE FIRST PROBLEM THAT MANIFESTS ITSELF IN THE SPACE-STORM TRANSGRESSION

Surprisingly, the perplexity on the absolute space-storm put in matter by the connectivity is not formulated from the perspective of to know or to act, but from the possibility of an 'emotional' authenticity through the net.<sup>3</sup> The 'seen personal' is concretized as emotionalism and this last, would be able not to be authentic out of the interpersonality. Would emotionalism be a misrepresentation of the emotional authenticity indeed online?

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(<sup>1</sup> Notons que ces trois termes sont eux-mêmes des «concepts opératoires» qui sont donnés rapidement à titre d'exemple pour faciliter la compréhension d'événements neurologiques d'une très grande complexité et capables de variations et de nuances oemidérables.)

<sup>1</sup>D. De Kerckhove, *Introduction à la recherche neuroculturelle*, in D. De Kerckhove-A. Iannucci, *McLuhan e la metamorfosi dell'uomo*, Roma 1984, p. 164: «Il s'agit de la théorie de l'épigénèse. Comme l'explique Changeux, «La grande majorité des synapses du cortex cérébral se forment après la mise au monde de l'enfant. La poursuite, longtemps après la naissance, de la période de prolifération synoptique, permet une «imprégnation» progressive du tissu cérébral par l'environnement physique et social» (HN-320). Ce serait donc au niveau, non de la cellule nerveuse (le neurone), mais de ses «points de contact» (les synapses), dont le nombre peut atteindre 30.000 par cellule, que la rencontre avec l'environnement pourrait affecter l'organisation cérébrale. Il va sans dire qu'à ce niveau, l'articulation des nuances les plus subtiles, est au moins théoriquement possible».

<sup>2</sup>D. De Kerckhove, *Introduction à la recherche neuroculturelle*, in D. De Kerckhove-A. Iannucci, *McLuhan e la metamorfosi dell'uomo*, Roma 1984, p. 164: «La théorie de «la stabilisation sélective des synapses» (HN-301-302) suppose que les connexions qui relient les neurones entre eux et aux organes, ne sont pas programmées telles quelles par l'enveloppe génétique, mais qu'elles dépendent de processus de sélection et de stabilisation qui sont déterminés non *pas d'avance, mais en cours d'utilisation*. Cela voudrait dire qu'à certaines périodes de croissance programmées génétiquement, l'organisme ne pourrait se développer que dans la mesure où il subirait et marquerait les variables internes ou externes qui prévalent dans son environnement. Changeux laisse entendre que chez l'homme, l'environnement culturel doit être compris parmi ces conditions et il résume cette idée par cette formule saisissante: «Au darwinisme des gènes succède le darwinisme des synapses». Je ne puis mieux faire ici que renvoyer le lecteur à son admirable démonstration, en me bornant à relever cette conclusion, très pertinente pour la recherche neuroculturelle: «la mise en place de l'empreinte culturelle se fait de manière progressive. Le contingent moyen de 10.000 (ou plus) synapses par neurone du cortex ne s'établit pas en une seule fois. Au contraire, celles-ci prolifèrent par vagues successives depuis la naissance jusqu'à la puberté, chez l'homme. Chaque vague inclut vraisemblablement, redondance transitoire et stabilisation sélective. Il s'ensuit un enchaînement de périodes critiques où l'activité exerce son effet régulateur » (HN-329)».

<sup>3</sup> L. Sade-Beck, *Internet Ethnography: Online and Offline*, in «International Journal of Qualitative Methods», 3 (2) June, 2004, pp. 2-3, etiam in «Internet» 2006, [http://www.ualberta.ca/~iiqm/backissues/3\\_2/pdf/sadebeck.pdf](http://www.ualberta.ca/~iiqm/backissues/3_2/pdf/sadebeck.pdf): «On one hand, communication through the Internet provides immediacy, accessibility, and continuousness to the expression of emotion; on the other hand, it differs from face to face communication. When both parties are present, physical and visual interaction provides details on the identity of users and about the situation eliciting the emotion. This phenomenon questions the essence of emotions, the degree to which they are concrete, and their mode of expression in virtual space. Can emotions really be expressed through an "impersonal" or "alienated" computer technology? Can we express emotions of love, pain, or sorrow through a communication medium based on reading and writing, but lacking any visual physical expressions? The social space from which we can learn about the expression of emotions through the Internet is formed by virtual communities, such as e-groups. Studies that have investigated interpersonal communications in these communities, primarily studying virtual support groups, have found that online communication enables users to freely express emotions and reach a high level of self-disclosure. This exposure is accomplished through expressive codes developed among users as a sign language and vocabulary of abbreviations, and through written descriptive emotions (in short or expanded form) in "real time" in a genuine, spontaneous manner (Weinberg, Schmale, Uken & Wessel, 1996; Salem, Bogar & Reid, 1997)».

## THE ANONYMITY IS THE PSEUDO-IDENTITY IN THE DISSOCIATION FROM THE 'REALITY'

The suspect of a net not fully human centers on the possibility of dissimulation through the anonymity and the pseudonymity.<sup>1</sup> Are we in presence of the here so feared 'mass that lets the individual disappears'?<sup>2</sup> Yet the coverage of its own identity in certain circumstances in which the person is found exposed belongs to a more incisive formality of the freedom of expression.<sup>3</sup> Does letting the individual disappearing make him disappear the whole 'real'? Does the indirect communication in the mass reduce us-perhaps - from human person to tele-human person?<sup>4</sup> A breaking daldi could be within and among the person and its body, in a disarticulation and a well wider dismemberment: a mutilated person.<sup>5</sup> In our itinerary, to this point we ask ourselves if the anomalies are typical of Internet or if they belong to the more general human experience, even made clearer by the dynamic internet. How for the small screen, will they exist alone 'internet events and not those 'real'?<sup>6</sup>

## FROM THE HUMAN INDIVIDUAL ORGANISM TO THE GLOBAL 'SUPER-ORGANISM'?

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<sup>1</sup> M. S. Frankel, Ph.D. and Sanyin Siang, *Ethical and Legal Aspects Of Human Subjects Research on The Internet* (A REPORT OF A WORKSHOP. June 10-11, 1999, Washington, DC), in «Internet» 2006, <http://www.aaas.org/spp/sfsl/projects/intres/report.pdf> (p. 9): «Anonymity and pseudonymity not only complicate efforts to determine what information should be conveyed to subjects, they also affect researchers' ability to gauge the subject's understanding of the research risks. In the physical world, the researcher and subject can engage in face-to-face dialogue that can help to ascertain whether the subject adequately comprehends. Such dialogue is not a characteristic of the Internet, and the distance between researcher and subject is widened even further when the researched community consists of hundreds or more anonymous or pseudonymous members. Are there models in the physical world, perhaps in naturalistic research protocols, in which informed consent from a "community representative" could suffice for research on the entire community? And how should researchers proceed when studies are based on interactions among community members and some members refuse to give informed consent? (1)».

(1) The complexities associated with obtaining informed consent when researching communities has been widely debated in both the social and biomedical sciences literature. See, for example, Ruth Macklin, "The Problem of Adequate Disclosure in Social Science Research," in Tom L. Beauchamp, Ruth R. Faden, R. Jay Wallace, Jr., and LeRoy Walters (eds.), *Ethical Issues in Social Science Research*, The Johns Hopkins University Press, 1982, pp.209-210, and "Proposed Model Ethical Protocol for Collecting DNA Samples," *Houston Law Review*, 1997 33(5):1443-1447.)

<sup>2</sup>J. Baudrillard, *Media et information / stratégie d'objet et ironie objective*, in D. De Kerckhove - A. Iannucci, *McLuhan e la metamorfosi dell'uomo*, Roma 1984, p. 142: «Les media font disparaître l'évènement, l'objet, le référentiel. Mais peut-être ne font-ils que servir de support à une stratégie de disparition qui serait celle de l'objet lui-même? Les masses font disparaître, éclipsent l'individu. Mais peut-être sont-elles pour l'individu l'occasion rêvée de disparaître? Les media sont sans réponse. Mais peut-être ne sont-ils que la surface derrière laquelle les masses en profitent pour se taire? Peut-être s'agirait-il alors encore de séduction, mais exactement à l'inverse, non plus du détournement des masses par les media, mais du détournement des media par les masses, dans la stratégie de disparition de celles-ci à l'horizon des media».

<sup>3</sup> CENTER FOR DEMOCRACY & TECHNOLOGY, *The Internet and Human Rights: An Overview*, in «Internet» 2006, <http://www.cdt.org/international/000105humanrights.shtml>: «-- Anonymity. Central to free expression and the protection of privacy is the right to express political beliefs without fear of retribution and to control the disclosure of personal identity. Protecting the right of anonymity is therefore an essential goal for the protection of personal freedoms in the online world. The right of anonymity is recognized in law and accepted by custom. It has been an integral part of the growth and development of the Internet. Some governments are working to extend techniques for anonymity. But other efforts are underway to establish mandatory identification requirements and to limit the use of techniques that protect anonymity. For example, the G-8 recently considered a proposal to require caller identification for Internet users. Some local governments have also tried to adopt legislation that would prohibit access to the Internet without the disclosure of personal identity. Governments should not require the identification of Internet users or restrict the ability to express political beliefs on the Internet anonymously. Efforts to develop new techniques to protect anonymity and identity should be encouraged. ISPs should not establish unnecessary identification requirements for customers and should, wherever practicable, preserve the right of users to access the Internet anonymously».

<sup>4</sup>C. Sartori, *Il medium è anche il messaggio e il villaggio è davvero globale*, in D. De Kerckhove - A. Iannucci, *McLuhan e la metamorfosi dell'uomo*, Roma 1984, p. 139: «Le conseguenze a questo punto sono molto semplici, meno dirette, ma molto importanti, in una realtà che è una tele-realtà, l'uomo è infatti un tele-uomo; tele-attore talvolta (come capita alle celebrità); molto più spesso tele-spettatore, in ogni caso un individuo che tende ad un'esperienza «vicaria» della realtà, a viverla «per interposto mezzo», attraverso il teleschermo».

<sup>5</sup> Indhu Rajagopal - Nis Bojin, *Globalization of prurience: The Internet and degradation of women and children*, in «Internet» 2004, [http://www.firstmonday.dk/ISSUES/issue9\\_1/rajagopal/index.html](http://www.firstmonday.dk/ISSUES/issue9_1/rajagopal/index.html): «Even in virtual images of pornography, the body is mutilated, reshaped, disintegrated, re-assimilated, and sometimes even sold as discrete items expressive of what is deemed to be 'sexuality'. In the first stage in the process of commodification, the 'body' is separated from the living person, and becomes anonymous to the producer and the consumer. The process of commodification reaches the second stage when the body parts are removed or alienated, and used or modified to formulate different 'flavors' of bodies. In the final stage, the parts are assembled into forms of bodies that are mass-marketed for profit by commercial enterprises which cannot, and do not, own the individuals whose body parts or bodies they commercialize. Popularly accessible images are commercialized, and are found through Hentai, or pornographic Anime, sites where cartoons are manipulated for the purposes of satisfying the sexual desires of those who crave bodies that can perform the impossible and come equipped with erogenous zones that exceed the standards of reality in both size and detailed appearance ([http://www.toon-porn.biz/anime\\_porn.html](http://www.toon-porn.biz/anime_porn.html))».

<sup>6</sup>C. Sartori, *Il medium è anche il messaggio e il villaggio è davvero globale*, in D. De Kerckhove - A. Iannucci, *McLuhan e la metamorfosi dell'uomo*, Roma 1984, p. 138: «Non vi sono più, allora, semplicemente degli eventi: quelli che scorrono senza la presenza della telecamera, sono destinati a non incidere (salvo casi rari) nella realtà e nella storia, accadono e immediatamente si trasformano in «non eventi»; gli altri, quelli che passano attraverso la lente della telecamera, i *media events* insomma, costituiscono il vero alimento della realtà e della storia, e la ratifica televisiva fa sì che essi soli, in pratica, diventino gli «eventi»».

From this ‘connectivity demultiplied today-through Internet – it could perhaps be born a ‘global brain’?<sup>1</sup> And would it be born-then - a “global super organism”?<sup>2</sup> You see out today in the semantic net and its meta languages the way of formation of this ‘global intelligence through the interaction of concepts of the direct integration in the individual mind.’<sup>3</sup> To this point a greater difficulty would be born: however of facts the brain is coordinated and coordinator while the ‘net introduces itself, in the years ‘2000 as an informative agglomeration still anarchist.’<sup>4</sup> It speaks of ‘technologies similar to operate some brain to set for Internet. You would arrive to a global or common intelligence, that, unlike the artificial intelligence, would not concern only to be individual but it would altogether develop.’<sup>5</sup> The communicational anthropology is compared, to this point, with the new types of born human person or delineated him by the communicational dynamic, that mostly attract always the attention of the observatories.<sup>6</sup> Does it preannounce-perhaps - the twilight of homo sapiens (not so much wise ‘, would be better perhaps of ‘to call it homo loquens) to pass communication to the ‘homo (likewise so few communicative?), what understood cannot be without reference to the informative dynamics.<sup>7</sup> Will another type of anthropos appear at the same time post-modern ‘and

<sup>1</sup>N. F. McInnis, *THE FIRST INTERNATIONAL ELECTRONIC SEMINAR ON WHOLENESS, Time To Think The World Back Together*, in «Internet» 2004, [http://www.newciv.org/ISSS\\_Primer/seminar.html](http://www.newciv.org/ISSS_Primer/seminar.html): «It wasn't until 1977, upon discovering Science of Mind, that I found a more profound way of thinking about our interconnectivity. And it was yet six more years until I discovered a mindful theory of human interconnectivity while reading Peter Russell's book, *The Global Brain*. Observing that it takes the interconnectivity of 10 billion atoms to make a human cell, and of 10 billion human cells to make a human brain, Russell hypothesized that as we approach having 10 billion such brains on the planet, they will somehow interconnect to create a collective human consciousness. Earth's global body would thus acquire a global mind. A potential candidate for global-brain-like interconnectivity, the Internet, already existed in embryonic form when Russell's book was first written. Yet only today, with Internet activity increasing more rapidly than has any other technology in history, do we at last have a mass medium that reinforces the essence of our interconnectivity by empowering--as a consequence of linking--independently thoughtful minds».

<sup>2</sup>F. Heylighen, *The Global Brain FAQ* (Principia Cybernetica Web), in «Internet» 2004, <http://pespmc1.vub.ac.be/GBRAIFAQ.html>: «What is the global brain? The "global brain" is the name given to the emerging intelligent network formed by all people on this planet, together with the computers and communication links that connect them together. Like a real brain, this network is an immensely complex, self-organizing system, that processes information, makes decisions, solves problems, learns new connections and discovers new ideas. It plays the role of a collective nervous system for the whole of humanity. No person, organization or computer is in control of this system: its "thought" processes are distributed over all its components. What is the global superorganism? The metaphor of the information network as global brain can be extended to the whole of society as a global organism. If the information processes in the network constitute the "mind" of this system, all people together with their artefacts (tools, buildings, cars, etc.) form its "body". Since individual people are organisms themselves, this encompassing system is an organism consisting of organisms, that is, a super-organism. The superorganism not only has a nervous system for processing information, but a metabolism for processing matter and energy: resources such as ores, water, oil are converted via various industrial processes into specialized goods and services, transported to the place where they are needed, used, and finally recycled or excreted as waste. Miller's "living systems theory" provides a detailed correspondence between the different subsystems of a society and those of an organism».

<sup>3</sup>N. Spivack, *Minding the Planet: From Semantic Web to Global Mind*, (Draft 1.1 for Review (integrates some fixes from readers), ([www.mindingtheplanet.net](http://www.mindingtheplanet.net)), in «Internet» 2006, [http://novaspivack.typepad.com/nova\\_spivacks\\_weblog/2004/06/minding\\_the\\_pla.html](http://novaspivack.typepad.com/nova_spivacks_weblog/2004/06/minding_the_pla.html): «The recently emerging Semantic Web adds yet another layer of sophistication beyond XML. It enables agents in the system to begin to understand and reason about the meaning of information within the system. The Semantic Web enables software to work not merely with data but with concepts. Concepts are information structures that are connected to formal systems of ideas – in other words they are meaningful information. The Semantic Web provides standards for transforming ordinary information structures into concepts that can be understood by software programs. Using metalanguages for defining semantics such as RDF and OWL, the Semantic Web makes it possible to connect data elements to concepts in formally defined systems of knowledge called ontologies. By doing this software programs are able to then reason intelligently about the information».

<sup>4</sup>F. Heylighen, *The Global Brain FAQ* (Principia Cybernetica Web), in «Internet» 2004, <http://pespmc1.vub.ac.be/GBRAIFAQ.html>: «To make the global information network function really at a higher level of intelligence, instead of merely storing and transmitting data, new technologies are needed. These technologies are inspired by our understanding of how the human brain works: how it learns associations, thinks, makes decisions, etc. At the same time, these technologies must take into account that the information on the net is not centrally controlled, but distributed over millions of people and documents, with billions of cross-connections. Thus, cognitive processes at the level of the GB must allow all this chaotic, heterogeneous information to interact so that collective patterns can appear. Some of the more traditional technologies include the various methods of keyword-based information retrieval. Others may use techniques derived from artificial intelligence, such as software agents, neural networks or data mining. Still others, such as collaborative filtering or groupware, enhance collective problem solving».

<sup>5</sup>F. Heylighen, *The Global Brain FAQ* (Principia Cybernetica Web), in «Internet» 2004, <http://pespmc1.vub.ac.be/GBRAIFAQ.html>: «Although many of the technologies supporting the global brain were first developed by Artificial Intelligence (AI) researchers, AI and GB research differ in several basic aspects. AI's goal is to create an independently intelligent system, whereas GB research tries to enhance existing individual and collective intelligence. This may be called IA, *intelligence amplification*, rather than AI. By starting from the enormous amount of information available in documents and people's heads, the GB approach avoids the bottleneck of knowledge acquisition which has hampered AI. Moreover, the emphasis of GB research is on open, interactive, self-organizing systems, rather than on the closed, preprogrammed systems of traditional AI».

<sup>6</sup>M.-Cl. Vetrano-Soulard, *Les moyens électroniques de communication et la transformation de la culture*, in D. De Kerckhove-A. Iannucci, *McLuhan e la metamorfosi dell'uomo*, Roma 1984, pp. 90-91.

<sup>7</sup>D. De Kerckhove, *Introduction à la recherche neuroculturelle*, in D. De Kerckhove-A. Iannucci, *McLuhan e la metamorfosi dell'uomo*, Roma 1984, pp. 160-161: «Les modèles biologiques inspirés, par le «machinisme» au XVIII<sup>e</sup> siècle avaient, toutes proportions gardées, la simplicité relative du système musculaire par comparaison au système nerveux. Fondée sur le principe du levier et sur une causalité simple, la pensée mécaniste avait plus tôt fait de concevoir l'organisme comme une hiérarchie de rapports séquentiels que d'envisager le caractère déterminant des interactions entre l'environnement et l'homme. Pour passer des métaphores simplistes de l'«honune-machine» (et maintenant de l'«ordinateur-cerveau») à celles, bien plus exigeantes, de la biologie moléculaire, il faut faire un effort de recyclage mental où la perception du monde n'est plus fondée sur le paradigme de l'énergie, mais sur celui de l'information et «Énergie et production ont tendance aujourd'hui à s'identifier à information et apprentissage. Désormais, la création des marchés et la consommation sont des formes d'apprentissage. C'est le résultat de l'implosion électrique qui fait suite aujourd'hui à des siècles de spécialisation et d'explosion mécaniques. Littéralement, l'ère électronique est celle de l'illumination. De la même façon que la lumière est à la fois énergie et information, l'automatisme électronique a reconfiguré production, consommation et apprentissage en un seul processus inextricable»

fed by the 'ciber'-'organism'?<sup>1</sup> The mutation of the human person necessarily introduces a type of relationship really with the 'nature with its parameters not necessarily linear and unchangeable in comparison with the preceding context of human experience. It is said that the communication engraved as a system of manifold impulses:<sup>2</sup> a "nervous system",<sup>3</sup> connectivity not through the 'nervous cell but thanks to the 'contact' among the cells in their multi connections relations.<sup>4</sup> The way of developing these connectivity rises from the 'I try to circle of the intellectual faculties of the brain, more than from the 'I try linear classical'.<sup>5</sup> This way, the mind maps strengthen these intersections report them of connectivity. A new type of human person is born, the researchers of information or impassioned people to find points of view that they don't know anchor (both that they allow with them or they dissent from them).<sup>6</sup> Among the formalities of the connectivity of Internet, the possible tampering of the brain through frequencies not habitually available it is one of the unknown ones that will have to face.<sup>7</sup> Up to that point this would allow to condition the knowledge, the actions, the emotional motivations of the people?

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(UM-304). A la vitesse de la lumière, les séquences mécaniques font place aux configurations. Seul le système nerveux est biologiquement à la mesure d'un monde gouverné par l'information».

<sup>1</sup>E. Ardevol, *Cyberculture: Anthropological perspectives of the Internet. Using anthropological theory to understand media forms and practices workshop Loughborough, 9th December, 2005*, in «Internet» 2006, [http://www.philbu.net/media-anthropology/lboro\\_ardevol.pdf](http://www.philbu.net/media-anthropology/lboro_ardevol.pdf): «During the 90ties and the beginning of the XXI century, Cyberculture was at the core of social studies about Internet, most of them assuming that a new cultural model was emerging from Internet use that would change patterns of social relation, self identity and community. Some researchers also thought that Internet would bring a new way of political practice and economic exchange; thus, Internet was seen as a new technology that will affect all spheres of our life. Internet has been seen as a technology that will bring a new era or that it is the maximum exponent of a new cultural order called Informational and Knowledge Society, Network Society -Manuel Castells- or Cyberculture -Pierre Levy, Arturo Escobar. People, societies and states that will not participate in that technological revolution will be excluded of progress. Therefore, digital divide is seen as the new social definitive division, more important than other unequal divisions such as rich and poor, developed or undeveloped countries. Going further, technoculture, the imbrications of technology in human interactions and in human body itself, related with cognitive sciences, biotechnologies and genetics science, will change our conceptions of nature as opposed to culture, creating a new anthropos or posthuman cyborg -Dona Haraway. David Hakken work Cyborgs @ Cyberspace, An Ethnograph her looks to the Future is a useful contrasting point here, because he remembers us that these kind of theorizations need an empirical background and are strongly related with evolutionist and neo-evolutionist theories in anthropology, and that there is an important field in anthropological work about technology innovation and culture change, such as Leslie White thesis, or recently, the social construction of technology theories of Bruno Latour and Wiebe Bijker, among others».

<sup>2</sup>N. George, *D' Einstein à Teilhard*, Paris 1964, p. 191 : «Tout le reste, l'imprimerie, le télégraphe et le téléphone, la radio et la télévision, les réseaux routiers, les lignes maritimes, ferroviaires et aériennes, les liens économiques, culturels et politiques sont autant de fibres, de prolongements et de neurones de l'immense système qui innerve la couche humaine répartie à la surface de la Terre et par lequel des impulsions psychiques peuvent se transmettre qui rendent solidaires les unes des autres chacune des «cellules» de la société».

<sup>3</sup>M. McLuhan, *Understanding Media*, London 1964, pp. 368, 168.

<sup>4</sup>D. De Kerckhove, *Introduction à la recherche neuroculturale*, in D. De Kerckhove-A. Iannucci, *McLuhan e la metamorfosi dell'uomo*, Roma 1984, p. 164: «Il s'agit de la théorie de l'épigénèse. Comme l'explique Changeux, «La grande majorité des synapses du cortex cérébral se forment après la mise au monde de l'enfant. La poursuite, longtemps après la naissance, de la période de prolifération synoptique, permet une «imprégnation» progressive du tissu cérébral par l'environnement physique et social» (HN-320). Ce serait donc au niveau, non de la cellule nerveuse (le neurone), mais de ses «points de contact» (les synapses), dont le nombre peut atteindre 30.000 par cellule, que la rencontre avec l'environnement pourrait affecter l'organisation cérébrale. Il va sans dire qu'à ce niveau, l'articulation des nuances les plus subtiles, est au moins théoriquement possible».

<sup>5</sup>G. Johnson, 'Why do mind maps work?', (from of *Between Seeing - link to the innovation weblog*), in «Internet» 2006, <http://insight.org/blog/archives/category/an-eye-on-research/alternative-methods/>: «They work because the brain operates in circles. A simple way to think about this is to think of millions of bits of information in the brain flowing in circles. When two bits of information intersect an idea is formed. Mind maps facilitate the collection of those bits of information, where as creating linear lists forces the brain to work in a way that is not natural for it and consequently you don't get all of the information available to you. Makes perfect sense to me - that is indeed the way everything - processes and tools - we use for thought and communication work - the internet (in its right name the world wide web) is a series of loops of one thought or idea (in the form of a link leading to another). And that is what blog conversations are all about too - picking up one thread and building upon it elsewhere. This is what I feel about mind maps (and have said so in a comment on this post) - we have been conditioned to think linearly - in lists - whereas the natural way that thought flows is in circles. We all make mind maps every day without realizing it... linear thinking makes ideas unidimensional and restricted whereas "circular thinking" (for want of a better term) opens up new ideas and possibilities. Yet people hesitate to adopt - or even acknowledge - such thought processes as natural and effective. As Johnson has said in his post, most of us are trained to think 'straight' and with our left brains. Anything veering dangerously towards the right brain is suppressed, and even suspect (until of course one is universally recognized as a creative - if eccentric - genius!)».

<sup>6</sup>S. H. Chaffee, *Mass Media and Interpersonal Channels: Competitive, Convergent, or Complementary*, in G. Gumpert - R. Cathcart, *Inter / Media*, Oxford 1982, p. 70: «Seekers of information (and opinion), on the other hand, appear to be quite different from other people. An extensive review of studies of exposure to information found that people tend to seek out viewpoints they have not yet heard -whether they agree with the opinions expressed or not- when those viewpoints would be useful to know about. Other strong predictors of voluntary exposure to information are education (and correlated social class), and a previous history of exposure to the same topic. Taking these characteristics as a group produce a sensible generalization: potentially useful information is most likely to be sought by a person who knows enough (about the subject) to recognize deficiencies in his knowledge».

<sup>7</sup>J. Wall, *Mind Control with Silent Sounds and Super Computers*, in «Internet» 2004, <http://spaces.msn.com/members/millshan/Blog/cns!1pthfbu1rLVIsBWvJJOoPFXQ!214.entry>: «The mind-altering mechanism is based on a subliminal carrier technology: the Silent Sound Spread Spectrum (SSSS), sometimes called "S-quad" or "Squad". It was developed by Dr Oliver Lowery of Norcross, Georgia, and is described in US Patent #5,159,703, "Silent Subliminal Presentation System", dated October 27, 1992. The abstract for the patent reads: "A silent communications system in which nonaural carriers, in the very low or very high audio-frequency range or in the adjacent ultrasonic frequency spectrum are amplitude- or frequency-modulated with the desired intelligence and propagated acoustically or vibrationally, for inducement into the brain, typically through the use of loudspeakers, earphones, or piezoelectric transducers. The modulated carriers may be transmitted directly in real time or may be conveniently recorded and stored on mechanical, magnetic, or optical media for delayed or repeated transmission to the listener." According to literature by Silent

## THE HUMAN PERSON SIMULTANEOUSLY 'ONLINE' AND 'OFFLINE'

Internet penetrates a double human dynamics: that interpersonal (offline) and that to distance (online).<sup>1</sup> The specificity of this human configuration is that the two levels or the two dimensions cannot be disconnected the one from the other, they make a part of an inseparable human dynamics. To say that the "online" is a circle for its account, even virtual or unreal, it marks the reductive quality of the anthropological examination or 'netnographic' of the type of human person that finds before. The treatment of texts 'pdf' subsequently exemplifies that offline can be created for then inserting the written piece online (as already for images or video and audio).<sup>2</sup>

## THE INCENTIVES FOR A FULLER HUMAN INVOLVEMENT

In instrumental way, it will always make note, that Internet allows some most incisive formalities of defense of the human rights basing of the same human dignity.<sup>3</sup> This integrity that

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Sounds, Inc., it is now possible, using supercomputers, to analyse human emotional EEG patterns and replicate them, then store these "emotion signature clusters" on another computer and, at will, "silently induce and change the emotional state in a human being". Silent Sounds, Inc. states that it is interested only in positive emotions, but the military is not so limited. That this is a US Department of Defense project is obvious. Edward Tilton, President of Silent Sounds, Inc., says this about S-squad in a letter dated December 13, 1996: "All schematics, however, have been classified by the US Government and we are not allowed to reveal the exact details... .. we make tapes and CDs for the German Government, even the former Soviet Union countries! All with the permission of the US State Department, of course... The system was used throughout Operation Desert Storm (Iraq) quite successfully." The graphic illustration, "Induced Alpha to Theta Biofeedback Cluster Movement", which accompanies the literature, is labelled #AB 116-394-95 UNCLASSIFIED" and is an output from "the world's most versatile and most sensitive electroencephalograph (EEG) machine". It has a gain capability of 200,000, as compared to other EEG machines in use which have gain capability of approximately 50,000. It is software-driven by the "fastest of computers" using a noisenuencing technology similar to that used by nuclear submarines for detecting small objects underwater at extreme range. The purpose of all this high technology is to plot and display a moving cluster of periodic brainwave signals. The illustration shows an EEG display from a single individual, taken of left and right hemispheres simultaneously. The readout from the two sides of the brain appear to be quite different, but in fact are the same (discounting normal left right brain variations)».

<sup>1</sup> L. Sade-Beck, *Internet Ethnography: Online and Offline*, [http://www.ualberta.ca/~iiqm/backissues/3\\_2/html/sadebeck.html](http://www.ualberta.ca/~iiqm/backissues/3_2/html/sadebeck.html): «In contrast to other media, the Internet integrates personal and mass media. It has, in fact, created a new mode of human communication, enabling participants to take part in two-way mass communication. Users of the World Wide Web are no longer passive audiences of data consumers, as in media such as television and radio, but are active participants controlling the content of the information. They shape the quality of the data and respond to them. The Internet opens up a simple virtual topography of sites and "addresses" to users, allowing travel from site to site by moving from link to link. Cyberspace, or cybernetic space, through which users move, does not imitate the real world, but rather creates a rapid, new, immediate, multi-layered world, thanks to the 24 hour per day, 7 days a week accessibility to the Internet and site structure (Nunes, 1997). Vast amounts of data and links to additional, related sites provide a huge storehouse of available information; thus, the Internet is a technological innovation tightly linked to social change. These social changes have clear implications for the patterns of expression of emotions. Online communication on the Internet facilitates the expression of emotions (output) and the input of emotional messages, thus developing and reinforcing important social ties between users, forming a system of relationships similar to ties of family and friendship, all taking place without participants being physically present. Thus, the Internet may be said to aid in preserving personal and intimate ties in cases where face-to-face contact is impossible due to physical distance between parties. Online interaction through the Internet exists mostly as a written medium, operating within a communications framework that takes place either in "real time" or as delayed interaction; in either form, however, the Internet transforms the act of writing into "speech"».

<sup>2</sup> S. Vaknin, *Internet: A Medium or a Message? Essays regarding the Internet, E-Commerce, E-Publishing, and Information Technology (IT)*, in «Internet» 2006, <http://samvak.tripod.com/internet.html>: «The cessation of hostilities between the Internet and some off-the-shelf software applications heralds the commencement of the integration between the desktop computer and the Net. This is a small step for the user - and a big one for humanity. The animosity which prevailed until recently between the UNIX systems and the HTML language and between most of the standard applications (headed by the Word Processors) - has officially ended with the introduction of Office 97 which incorporates full HTML capabilities. With the Office 2000 products, the distinctions between a web computing environment and a PC computing one - have all but vanished. Browsers can replace operating systems, word processors can browse, download and upload - the PC has finally been entirely absorbed by its offspring, the internet. The Portable Document Format (PDF) enables the user to work the Internet off-line. In other words: text files will be loaded to word processors and edited off-line. The same applies to other types of files (audio, video). Downloading time will be speeded up (today, it takes so long to download an audio or video file that, many times, it is impracticable). This is not a trivial matter. The ability to switch between on-line and off-line states and to continue the work, uninterrupted - this ability means the integration of the PC in the Internet».

<sup>3</sup> CENTER FOR DEMOCRACY & TECHNOLOGY, *The Internet and Human Rights: An Overview*, in «Internet» 2006, <http://www.cdt.org/international/000105humanrights.shtml>: «The Internet and Human Rights Work. The Internet is one of the best means for communicating on human rights, because it is inexpensive and global. E-mail makes point-to-point communication between human rights workers and among NGOs (non-governmental organizations) cheap and easy, and allows for better coordination of actions. Furthermore, the Internet has the potential of reaching global audiences, including those most in need of such information. The Internet is important to those working for human rights, as it can provide a secure means of communicating between and coordinating the work of human rights groups. Consequently, human rights activists were among the first to make use of the Internet to -- Coordinate actions and make contacts. Perhaps the most important application of the Internet in human rights is as a great tool for NGOs and activists to be in touch with each other, to share information privately, and to coordinate actions. Expose human rights violations and let people know about them. Many human rights organizations throughout the world have instituted e-mail lists to propagate their press releases, alerts and denunciations vis a vis human rights violations. Many of these groups also use Usenet to post their information, or it is posted there by others, and many groups have instituted web pages to make information available. Solicit action. Many organizations now use e-mail to distribute action alerts calling for letters to be written on behalf of specific issues. Gather information. The amount of human rights information online is extraordinary - beginning with the University of Minnesota web site, and now with the UNHCHR (United Nations High Commissioner on Human Rights) site online, it's much easier to do human rights research. By enabling early access to information, immediate dissemination of calls for campaigns, and the organization of wide international pressure, the Internet greatly increases the lobbying capacities of

the net allows to safeguard it would point out-perhaps - a human quality proper of the internetian fabric?

### *1• The intellect and to know about each one*

Apart the question of the teaching and the formation, Internet first of all engraves on the way and the quality of the to know human, included its management. We have already mentioned researchers of information to the birth of a typology of characterized people as ‘. From the interdisciplinary complexity in the methodologies of to know, the research sees to develop itself the circle of the “complexity researchers” (not explorers of a discipline in, but of the complexity of interactions).<sup>1</sup> It speaks of intellectual capital ‘that understands the ‘to know’ tacit (not transferable directly) and the ‘to know’ encoded (transmissible by the informative infrastructures).<sup>2</sup>

### The viruses or the sign of a management of to know with hidden errors

More than a form of architect delinquency of healthy plain and of violent aggression on the planning that allows the management of ‘to know’, the viruses often disclose errors hidden of an operating system that already contains in if the possibility of the deviant or destructive action of the virus. This awareness on the vulnerability of the management of ‘to know’ already seems to have been preoperating from Poincaré that exemplified as a dwarfish mathematical error of departure that could contaminate everything one system of calculations while this initial error was not noticed.<sup>3</sup>

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human rights groups. It is vitally important, therefore, to promote freedom of expression and privacy as central elements of the development of the information society».

<sup>1</sup> S. Bullock – D. Cliff, *Science Review Summary: Complexity and Emergent Behaviour in ICT Systems*, in «Internet» 2005, [http://www.foresight.gov.uk/Intelligent\\_Infrastructure\\_Systems/Complexity\\_and\\_Emergent\\_Behaviour](http://www.foresight.gov.uk/Intelligent_Infrastructure_Systems/Complexity_and_Emergent_Behaviour) (pdf p. 11): «Where do complexity researchers come from? What are their backgrounds? What are they trained in?... Two types of intake are identified. First, a diverse range of domain-specific researchers, each trained in a single discipline become involved in complexity-related research questions relevant to their own discipline. This type of intake is supplemented by an influx of researchers trained in more abstract theoretical tools from physics, philosophy, biology, mathematics and ICT. Researchers also leave complexity research by similar routes, returning to the study of more mainstream domain-specific questions or alternative theoretical problems. Our informal survey suggests that the turnover of complexity researchers is relatively high, with few academics establishing a career in “complexity” per se. However, we can only guess at the motivations driving individuals to join and, perhaps more importantly, to leave this activity. The general absence of complexity modules and courses from university curricula preclude significant direct intake of “complexity scientists” from degree programmes. This ensures that researchers are rarely trained in the abstract theoretical tools and ideas of complexity theory. Rather these ideas and tools are obtained at post-graduate level, and tend to either be self-taught or taught by a self-taught PhD supervisor».

<sup>2</sup>THE EUROPEAN COMMISSION / DIRECTORATE GENERAL, 4. *The role of intangibles. 4.1 Collateral Investment in Support of ICT*, in «Internet» 2005, <http://www.il-a.fr/eu-epsilon/resources/ict/html/4.htm>: «Tacit vs Codified Knowledge. One characteristic of intellectual capital that has important implications for ICT investment is the organisational learning process whereby tacit knowledge is first codified and then validated in practical applications, from which new kinds of tacit knowledge evolve. This transformation is at the core of individual as well as organisational learning and, by this means, knowledge becomes transformed into information capable of being transmitted via information infrastructures: \* *Codified knowledge* can be readily exchanged over long distances and across organisational boundaries at low cost. As a result, such knowledge becomes rapidly accessible to all sectors and agents in the economy with information network access. This creates an immediate spillover effect, long recognised as a feature of R&D knowledge, and for which the scope of market supply is global. According to Edvinsson, (1) while there are obviously competitive constraints on disclosure, the stock of knowledge and ideas does not diminish when you use them. Rather, they develop in direct proportion to the intensity of use and interaction. Whereas tangible assets are generally subject to laws of diminishing returns, intangibles tend to follow the law of incremental marginal utility. \* Whereas *tacit knowledge* refers to knowledge that cannot be readily transferred because it has not been structured or stated explicitly. Examples of tacit knowledge are worker knowhow and skills. A skilled operator follows rules which are not recognised as such, often even by the individual following them. In a corporate culture, a related form of tacit knowledge has to do with the intuitive shared perceptions and beliefs that simplify communication in the workplace».

(1) CEPS: Roundtable proceedings, 14 January 1998.)

<sup>3</sup>R. Robertson, *Computer Viruses and the Human Mind*, in «Internet» 2006, <http://www.goertzel.org/dynapsyc/1997/virus.html>: «POINCARÉ'S HYPOTHESIS. Nineteenth century mathematician Henri Poincaré was prescient in realizing that "it may happen that small differences in the initial conditions produce very great ones in the final phenomena. A small error in the former produces an enormous error in the latter. Prediction becomes impossible" (Poincaré, 1903). There is an interesting proof of Poincaré's hypothesis in the recent experience of computer viruses. Many of the viruses that have had the greatest impact have been intended to be totally benign. Unfortunately, small errors in program code have led to disastrous results. The most frequent such error is when a virus program, which was intended to infect a computer only once, doesn't realize it has already done its job, and keeps infecting the computer over and over. This was the problem with the infamous virus released at Cornell University on November 2, 1988, by Robert Morris, Jr., which rapidly brought the entire Internet system of computers to its knees. Where the small drain of a single virus can pass unnoticed by a computer system, millions of viruses can fill every bit of memory and use up every cycle of computing power of the computer they have invaded. (See Stoll, 1989: epilogue; McAfee, 1990). People who aren't familiar with programming are unlikely to realize the significance of this problem. "Just be more careful that the program works correctly" they would probably suggest. Unfortunately, there has probably never been a complex system created which didn't have "bugs" in it. I remember when I was in charge of a software development department which was programming a new system to replace a major system we had been using for over seven years. While the new development programmers were busy at work on the new system, maintenance programmers still stayed busy fixing bugs in the old system. And that was after seven years! The hidden message revealed by the widely publicized cases of infection by computer viruses is that existing computer systems of all sorts could be making very

## The technology

The internet technology will see to be born some central brains whether to find every necessary software without owing to buy it or to unload on more modest and individual instruments finding every time the proper computer treatment for a research of data.<sup>1</sup>

## The birth of the semantic metalanguage

One foresees that the motors of search will be replaced by 'structures of 'to know' with that seeks intelligent and auto-imparant of the needs of the consumer.<sup>2</sup> There, where the written information could be transmitted without direct intervention of the human mind, the semantic metalanguage will allow to do circular 'the intelligence without direct reference the individual mind.'<sup>3</sup>

## The type to know about eachone from eachone and on eachone

Negatively it will be individualized in the typical dependent 'of the internet dynamic a human sample that consists of criticizing everything and all,: they are of the trolls or people that amuses to throw down what is able.<sup>4</sup> The evaluation here reassumed is obviously tributary of an instrumental

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large errors that have never been recognized. This means the computer systems that take care of every aspect of the world's financial life, computer systems that keep personal records on you and me, computer systems that support the military capabilities of the super-powers. Good system developers test systems thoroughly before installation, attempting to test every possible logic path. However, with a system of any reasonable level of complexity, this is an impossible task, so a major system is likely only to have been thoroughly tested for frequently occurring events. It's the infrequently occurring events, and especially the unforeseen combinations of events, that are the bane of systems developers. And those are also the areas where Poincare's admonition is most likely to come into play».

<sup>1</sup>S. Vaknin, *Internet: A Medium or a Message? Essays regarding the Internet, E-Commerce, E-Publishing, and Information Technology (IT)*, in «Internet» 2006, <http://samvak.tripod.com/internet.html>: «Future servers will contain not only information (as they do today) - but also software applications. The user of an application will not be forced to buy it. He will not be driven into hardware-related expenditures to accommodate the ever growing size of applications. He will not find himself wasting his scarce memory and computing resources on passive storage. Instead, he will use a browser to call a central computer. This computer will contain the needed software, broken to its elements (=applets, small applications). Anytime the user wishes to use one of the functions of the application, he will siphon it off the central computer. When finished - he will "return" it. Processing speeds and response times will be such that the user will not feel at all that it is not with his own software that he is working (the question of ownership will be very blurred in such a world). This technology is available and it provoked a heated debated about the future shape of the computing industry as a whole (desktops - really power packs - or network computers, a little more than dumb terminals). Applications are already offered to corporate users by ASPs (Application Service Providers). In the last few years, scientists put the combined power of the computers linked to the internet at any given moment to perform astounding feats of distributed parallel processing. Millions of PCs connected to the net co-process signals from outer space, meteorological data and solve complex equations. This is a prime example of a collective brain in action».

<sup>2</sup>S. Vaknin, *Internet: A Medium or a Message? Essays regarding the Internet, E-Commerce, E-Publishing, and Information Technology (IT)*, in «Internet» 2006, <http://samvak.tripod.com/internet.html>: «The Web houses the equivalent of 100 billion pages. Search Engine applications are used to locate specific information in this impressive, constantly proliferating library. They will be replaced, in the near future, by "Knowledge Structures" - gigantic encyclopaedias, whose text will contain references (hyperlinks) to other, relevant, sites. The far future will witness the emergence of the "Intelligent Archives" and the "Personal Newspapers" (read further for detailed explanations). Some software applications will summarize content, others will index and automatically reference and hyperlink texts (virtual bibliographies). An average user will have an on-going interest in 500 sites. Special software will be needed to manage address books ("bookmarks", "favourites") and contents ("Intelligent Addressbooks"). The phenomenon of search engines dedicated to search a number of search engines simultaneously will grow ("Hyper- or meta- engines"). Meta-engines will work in the background and download hyperlinks and advertising (the latter is essential to secure the financial interest of site developers and owners). Statistical software which tracks ("how long was what done"), monitors ("what did they do while in the site") and counts ("how many") visitors to sites already exists. Some of these applications have back-office facilities (accounting, follow-up, collections, even tele-marketing). They all provide time trails and some allow for auditing».

<sup>3</sup>N. Spivack, *Minding the Planet: From Semantic Web to Global Mind*, (Draft 1.1 for Review (integrates some fixes from readers), ([www.mindingtheplanet.net](http://www.mindingtheplanet.net)), in «Internet» 2006, [http://novaspivack.typepad.com/nova\\_spivacks\\_weblog/2004/06/minding\\_the\\_pla.html](http://novaspivack.typepad.com/nova_spivacks_weblog/2004/06/minding_the_pla.html): «In other words, whereas basic written languages simply make raw information portable, semantic metalanguages make *knowledge* (conceptual systems) and even *intelligence* (procedures for processing knowledge) about information portable. They make it possible for knowledge and intelligence to be formally expressed, stored digitally, and shared independently of any particular minds or programs. This radically changes the economics of communicating knowledge and of accessing and training intelligence. It makes it possible for intelligence to be more quickly, easily and broadly distributed across time, space and populations of not only humans but also of software programs. The emergence of standards for sharing semantic metalanguage statements that encode the meaning of information will catalyze a new era of distributed knowledge and intelligence on the Internet. This will effectively "make the Internet smarter." Not just monolithic expert systems and complex neural networks, but even simple desktop programs and online software agents will begin to have access to a vast decentralized reserve of knowledge and intelligence».

<sup>4</sup>T. Campbell, *Internet Trolls*, in «Internet» 2006, <http://members.aol.com/intwg/trolls.htm>: «An Internet "troll" is a person who delights in sowing discord on the Internet. He (and it is usually *he*) tries to start arguments and upset people. Trolls see Internet communications services as convenient venues for their bizarre game. For some reason, they don't "get" that they are hurting real people. To them, other Internet users are not quite human but are a kind of digital abstraction. As a result, they feel no sorrow whatsoever for the pain they inflict. Indeed, the greater the suffering they cause, the greater their 'achievement' (as they see it). At the moment, the relative anonymity of the net allows trolls to flourish. Trolls are utterly impervious to criticism (constructive or otherwise). You cannot negotiate with them; you cannot cause them to feel shame or compassion; you cannot reason with them. They cannot be made to feel remorse. For some reason, trolls do not feel they are bound by the rules of courtesy or social responsibility.

understanding of the net with its formalities to exploit. Positively it is pointed out, that the people are mostly prepared to disclose more - of and - on it same that in the interpersonal contacts.<sup>1</sup> It doesn't concern therefore the alone 'indiscreet invasion that is caused with Internet.

### The scientific methodologies that are born with Internet

The different denominations point out a type of anthropological method that is articulating with the intent 'online: terminology progressively purchases one specificity of it, among 'ciber antropology and 'virtual ethnography, the first one is interesting itself in the cultural formations in Internet and the second considering the cultural product that results from the involvement 'online.<sup>2</sup>

### The science

Not taking in account in priority way as it was the economy ,the industry is based on the research stirs partly out of the (N)TIC.<sup>3</sup> Advanced biotechnology could become the soul of industries based on the search in the (N)TIC.<sup>4</sup> The biological search becomes more and more remarkable in the understanding of the complex systems in the picture of the (N)TIC.<sup>5</sup>

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Perhaps this sounds inconceivable. You may think, "Surely there is *something* I can write that will change them." But a true troll can *not* be changed by mere words».

<sup>1</sup>M. S. Frankel - Sanyin Siang, *Ethical and Legal Aspects Of Human Subjects Research on The Internet* (A REPORT OF A WORKSHOP. June 10-11, 1999, Washington, DC), in «Internet» 2006, <http://www.aaas.org/spp/sfrl/projects/intres/report.pdf> (p. 6): «In cyber fieldwork, researchers can have largely unprecedented access to people's conversations and stories. Studies have documented the tendency of people to become more open online than they are in person. (1) Under a false or exaggerated expectation of privacy, participants may reveal more than what they might have done under conditions in the physical world».

(1) Reid, E. "Informed Consent in the Study of On-line Communities: A reflection on the Effects of Computer-Mediated Social Research." *The Information Society*. 1996 12:169-174; Childress, CA and Asamen, JK. "The Emerging Relationship of Psychology and the Internet: Proposed Guidelines for Conducting Research." *Ethics and Behavior* 1998 8(1):19-35.)

<sup>2</sup>E. Ardevol, *Cyberculture: Anthropological perspectives of the Internet. Using anthropological theory to understand media forms and practices workshop Loughborough, 9th December, 2005*, in «Internet» 2006, [http://www.philbu.net/media-anthropology/lboro\\_ardevol.pdf](http://www.philbu.net/media-anthropology/lboro_ardevol.pdf): «Christine Hine in her book Virtual Ethnography makes a distinction between cultural oriented studies about Internet use. On one hand, the approaches centred in the analysis of culture, on the other, these that cope with a cultural analysis of technology use. The firsts, take culture as an integrated whole that can be described from an observer point of view. The seconds, take an insider perspective, in the sense that any cultural description must be necessarily partial and situated, following the links of the network that conform our field of study, being the researcher part of the weave. Following this distinction, cyberculture as a new cultural model and the studies about culture formations in the Internet will fit the first option, while, Cyberculture as a cultural product of Internet use and as a media practice will follow a cultural analysis approach. Some scholars claim the necessity of a new anthropological speciality such as a Cyberanthropology -see an explanation of its contents defined by Budka-, to deal with the new field of study of Cyberculture, which needs its own theoretical frame and methodology development. An example is the extension of the term "virtual ethnography", meaning the adaptation of ethnography fieldwork to online social and cultural meaningful contexts. Even though I recognise the utility of adapting methods and concepts to new settings, I think that the term "cyberculture" could reified a concept and could lead to an objectivation of cyberculture as a social phenomena or a cultural entity that exists independently of our theoretical gaze».

<sup>3</sup>G. Gellatly – D. Beckstead, *Insights on the New Economy: Information and communications technology and science-based industries*, in «The Daily», Thursday, May 15, 2003, etiam in «Internet» 2005, <http://www.statcan.ca/Daily/English/030515/d030515b.htm>: «Information and communications technology (ICT) industries have dynamic output, employment and productivity characteristics, but they are not the only source of growth in Canada's high-tech economy, according to a new study. This study, the first in a new analytical series that examines industrial transitions in the Canadian economy, focusses on companies in ICT and science-based industries, innovative sectors associated with the growth of the New Economy. Production and performance trends in ICT industries during the late 1980s and much of the 1990s surpassed most other business sector industries that fall outside the ICT and science groups, often by a considerable margin. Gross domestic product (GDP) growth, productivity growth, investments in technology, and research and development expenditures are all areas in which the ICT sector excels».

<sup>4</sup>J. Christensen, *Introduction: The Industrial Dynamics of Biotechnology: New Insights and New Agendas*, in «Internet» 2005, [http://www.findarticles.com/p/articles/mi\\_qa3913/is\\_200309/ai\\_n9274322](http://www.findarticles.com/p/articles/mi_qa3913/is_200309/ai_n9274322): «FroslevBut biotechnology can also be conceived as an "industry", a collection of firms that primarily specialize in research and development of biotechnology. Especially in the USA, a virtual bubble of entrepreneurial energy fed into establishing dedicated biotechnology firms (DBFs) during the 1980s and 1990s, founded by university scientists and based on university science. More than elsewhere in the world institutional changes were implemented in the USA both in regard to intellectual property rights (IPR) in life sciences and financing of purely science-based firms, mobilizing high-powered incentives among university scientists to "go commercial" (see Coriat, Orsi and Weinstein's paper in this issue). Universities and DBFs became the dominant sources for expanding the opportunity space created by biotechnology. The DBFs represent the "hard core" of commercial agents in biotechnology, exclusively selling science-based knowledge as inputs to other industries, especially pharmaceuticals, but increasingly also to such diverse industries as medical diagnostics, food production and agriculture, bio-environmental remediation and chemical processing. Incumbents in pharmaceuticals have had to acquire and assimilate biotechnology capabilities and to engage in cooperative relations with DBFs, universities and other research institutions in order to survive, and the same seems slowly to become the case, even if at a much smaller scale, in these and other industries. This development is likely to come to resemble the diffusion of information and communication technology (ICT) during the last 20 years, where other industries than the core ICT industries have come to account for an increasing share of overall ICT innovations (Christensen and Maskell 2003; Mendonca 2003)».

<sup>5</sup>S. Bullock – D. Cliff, *Science Review Summary: Complexity and Emergent Behaviour in ICT Systems*, in «Internet» 2005, [http://www.foresight.gov.uk/Intelligent\\_Infrastructure\\_Systems/Complexity\\_and\\_Emergent\\_Behaviour](http://www.foresight.gov.uk/Intelligent_Infrastructure_Systems/Complexity_and_Emergent_Behaviour) (pdf p. 6): «Almost all such naturally occurring systems are biological, and increasingly, researchers in advanced engineering are turning to biology for inspiration. Examples of natural complex adaptive systems that have inspired modern ICT engineering techniques include the human immune system, which is being used as

## The scientific research and the future planning

From the 'self regulation' (better than 'deregulation') it reaches the 'self study', 'self scholarship' and 'self knowledge'.<sup>1</sup> Through the games of simulation it sets new 'model of reality' in the scientific methodology: by participative followed from certain ONGs.<sup>2</sup>

## From the semantic net to the auto-articulation of a mind panumana

The elements of 'to know' encoded (called 'memes') will auto-articulate in an intelligence able to develop out themselves some direct integration in the individual mind.<sup>3</sup>

## The intellectual order and the mental opening

One observes a greater mental opening from those people who take part and they are expressed through the net, thanks to a greater trust in the 'privacy distance of forehead to a direct individual identification in the interpersonal relationships'.<sup>4</sup>

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inspiration for new anti-virus approaches to computer security, animal nervous systems, which have inspired the development of artificial neural networks, insect colonies, which have inspired swarm intelligence algorithms for data mining, evolving populations, which have been the inspiration for new kinds of evolutionary search and design algorithms, and markets or auctions, which have inspired new computer resource-allocation systems to match computer system resources to demand».

<sup>1</sup> J. McNiff, *Evaluating Information and Communications Technology: new ways of evaluating new ways of knowing* (A paper presented to the Special Interest Group Research on Evaluation at the American Educational Research Association Annual Meeting), pro manuscripto - New Orleans, April 1-5, in «Internet» 2005, <http://www.jeanmcniff.com/Evaluation%20-%20revised.doc>: «The epistemological and methodological bases of self study in relation to ICT. Contemporary studies emphasise the process of knowledge creation through self study (Hamilton, 2001; Whitehead, 2000). Some show how ICT, as a new form of knowledge-creation itself, can be integrated into self-studies. Some of these are showing how the use of multimedia portfolios of professional development can contribute to a new scholarship of teaching (Farren, 2002; Whitehead, 2001)».

<sup>2</sup> I. Mayer (Project leader), *Simulating Complexity in Infrastructures by Simulation & Gaming*, in «Internet» 2005, <http://www.nginfra.nl/index.php?id=58>: «Scientific relevance. The project will lead to a PhD-thesis connecting important sub-disciplines in the field of infrastructures and simulation-gaming. These disciplines are: 1) Policy sciences/organization & management; 2) System sciences/engineering. Where necessary the research will make use of insights from e-learning and digital game based learning. The overall scientific research question of the project is: How and to what effects can ICT-rich (and web-based) simulation-gaming methods be used for 1) the interactive and multidisciplinary design and analysis of a next generation of infrastructures? and 2) to validate the insights and outputs of the various NGI sub-programs with the relevant communities of academics, professionals, practitioners, students and the public at large? The PhD project will develop a more detailed set of research questions and work on the development and evaluation of a number of NGI simulation-gaming experiments. The research will relate to and co-ordinate with, two other projects in the Actor Networks Cluster: the mathematical game theory in the project 'Multi-agent Decision Making with Incomplete Information' and the Meta modelling of Multi Actor Systems in the project 'Harnessing Multi-Actor System Complexity'. Economic and social relevance. By playing or participating in NGI simulation games, the participants - which can be any of the target groups of the NGI subprograms - will discover and learn about current and future infrastructure problems and solutions. They will be able to explore and experience NGI issues of convergence, reliability, regulation, public values, sustainability, risks etc. Simulation-gaming sessions can also be used to test and sharpen the acquired insights and tools of the tracks of the NGI framework before they are applied to real-world problems and real stakeholders. The project will lead to the following deliverables: \* Professional and scientific publications on the (intermediate) results of the various NGI simulation-game experiments, \* a PhD thesis. \* A community of practice on the development and use of simulation games for a next generation of infrastructures».

<sup>3</sup> N. Spivack, *Minding the Planet: From Semantic Web to Global Mind*, (Draft 1.1 for Review (integrates some fixes from readers), [www.mindingtheplanet.net](http://www.mindingtheplanet.net)), in «Internet» 2006, [http://novaspivack.typepad.com/nova\\_spivacks\\_weblog/2004/06/minding\\_the\\_pla.html](http://novaspivack.typepad.com/nova_spivacks_weblog/2004/06/minding_the_pla.html): «MEMES ARE EVOLVING MINDS OF THEIR OWN. The evolution of our planetary intelligence has been taking place for billions of years -- it is a natural process, just like the evolution of human intelligence was long ago. The Semantic Web is merely the next step in this process whereby communicable ideas (memes), having already evolved technologies to externalize themselves outside the human mind (i.e. books, recording, software, the Web, etc.) are starting to evolve the ability to propagate intelligently and interact without human intervention. In other words, although today memes are for the most part completely immobile and static unless perceived within a human brain, with the advent of the Semantic Web the cognitive processes for running memes will begin to spread outside the human brain, enabling memes to "run" without depending on humans. This emerging planet-wide collective mind, of which we will be but parts, will evolve higher level meta-processes and structures that will vastly exceed our comprehension. Indeed this is already starting to happen -- even today the self-organizing, chaotically emergent collective intelligence and information flows of the Internet exceed the power and understanding of any computer or brain on the planet. This new meta-level intelligence will be as far beyond human intelligence as the intelligence of the human brain is beyond that of its individual neurons».

<sup>4</sup> M. S. Frankel - Sanyin Siang, *Ethical and Legal Aspects of Human Subjects Research on the Internet*, in «Internet» 2006, <http://www.aaas.org/spp/sfrl/projects/intres/report.pdf> (pp. 5-7): «Studies have documented the tendency of people to become more open online than they are in person. Under a false or exaggerated expectation of privacy, participants may reveal more than what they might have done under conditions in the physical world. Furthermore, e-mail conversations can be archived without the participants' knowledge. Against this backdrop, direct reference to the researched community and public exposure may negatively affect and adversely impact the dynamics of an online community.1. In his paper on "Researching Internet Communities," King referred to the reaction of a member of an e-mail discussion support group who, after being cited without permission, felt that the "support group" is no longer a "safe environment" for discussion and for help. This sense of violated privacy for the group as a whole is also illustrated in the aftermath of a 1994 study of online self-help groups for sexually-abused survivors. These negative reactions are not inevitable, and they may well be rare. In fact, in the limited timeframe of this project, several studies were identified in which researchers went to great lengths to protect their subjects. 5 Nevertheless, problems can happen and vigilance in preventing or minimizing them is required».

## 2• *The operativity and to act of each one*

From the operational perspective, intelligence means to effectively use the information.<sup>1</sup>

### The universal accessibility of Internet gives operativity to whom is disabled

People limited by the not out look or from other bodily or physiological obstacles purchase through the open access and adapted not of Internet a parity of communication with the disabled.<sup>2</sup> Apparently impersonalizing as technology, here a greater humanization offers to whom neither it has been deprived. One will point out that the managers of services are kept not to be limitative even of these formalities in the hardware (*ibidem*).

### The high and low of the interactivity

The antagonists of the potentialities of Internet will first of all have it with the pretension interactivity, in the ambition that it had to do a substitution of that interpersonal of it (another time the reasoning dualist, cfr above).<sup>3</sup>

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(1 King, SA. "Researching Internet Communities: Proposed Ethical Guidelines for the Reporting of results." *The Information Society*. 1996 12:119-127. / 2 Reid, E. "Informed Consent in the Study of On-line Communities: A reflection on the Effects of Computer-Mediated Social Research." *The Information Society*. 1996 12:169-174. / 3 Childress, CA and Asamen, JK. "The Emerging Relationship of Psychology and the Internet: Proposed Guidelines for Conducting Research." *Ethics and Behavior*. 1998 8(1):19-35. / 4 Finn, J and Lavitt, M "Computer Based Self-Help Groups for Sexual Abuse Survivors." *Social Work with Groups*. 1994 17:21-46. / 5 See, for example, David Jacobson, "Impression Formation in Cyberspace: Online Expectations and Offline Experiences in Text-based Virtual Communities," in *Journal of Computer-Mediated Communication*, 1999 5(1) <http://www.ascusc.org/jcmc/vol5/issue1/jacobson.html> and Geoffrey Z. Liu, "Virtual Community Presence in Internet Relay Chatting," in *Journal of Computer-Mediated Communication*, 1999 5(1) <http://www.ascusc.org/jcmc/vol5/issue1/liu.html>.)

<sup>1</sup> N. Spivack, *Minding the Planet: From Semantic Web to Global Mind*, (Draft 1.1 for Review (integrates some fixes from readers), ([www.mindingtheplanet.net](http://www.mindingtheplanet.net)), in «Internet» 2006, [http://novaspivack.typepad.com/nova\\_spivacks\\_weblog/2004/06/minding\\_the\\_pla.html](http://novaspivack.typepad.com/nova_spivacks_weblog/2004/06/minding_the_pla.html): «Today there are many organizations that have realized that their primary product is knowledge. Tomorrow organizations will begin to realize that it is not just knowledge, but also intelligence, that is the key to their competitive advantage. Intelligence is the ability to utilize knowledge effectively. Merely creating vast collections of knowledge that are inaccessible or simply not leveraged is of no benefit to anyone. What matters is that the knowledge is intelligently connected to business processes such that it measurably improves performance. What is necessary for this to happen is not merely the implementation of knowledge management systems, but rather the implementation of intelligent systems -- a new way of creating and utilizing knowledge at all levels of the organization. Knowledge must be intelligently integrated into every business activity, event, relationship, resource and tool. Furthermore the integration must be bidirectional -- every business activity should be able to get knowledge from the enterprise and add knowledge back to it. By enabling this, with the right infrastructure and tools, organizations can literally begin to learn and improve based on their own collective experience. By providing all of the parts of an organization with access to the collective knowledge and intelligence of the system, the whole system can become more collectively intelligent».

<sup>2</sup> HUMAN RIGHTS AND EQUAL OPPORTUNITY COMMISSION, AUSTRALIAN HUMAN RIGHTS AND EQUAL OPPORTUNITY COMMISSION (HREOC), *World Wide Web Access: Disability Discrimination Act Advisory Notes. Version 3.2. August 2002*, in «Internet» 2006, [http://www.hreoc.gov.au/disability\\_rights/standards/www\\_3/www\\_3.html](http://www.hreoc.gov.au/disability_rights/standards/www_3/www_3.html): «In its most general sense, accessible web design refers to the philosophy and practice of designing web pages so that they can be navigated and read by everyone, regardless of location, experience, or the type of computer technology used. Accessible web design is most commonly discussed in relation to people with disabilities, because this group are most likely to be disadvantaged if the principles of accessible web design are not implemented. Failure to follow these principles can make it difficult or impossible for people with disabilities to access web pages. Tim Berners-Lee, the inventor of the Worldwide Web and Director of the W3C Consortium, has commented that "The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect." There are important similarities between designing for accessibility of the physical environment and designing for accessibility of the Worldwide Web. Accessibility of buildings and other aspects of the physical environment is best achieved through careful planning and attention to detail, rather than by adding accessibility features at the end of the design process. In a similar way, creating accessible web pages should be an integral part of the web design philosophy, and accessibility features should be incorporated into all aspects of the design process. Testing for accessibility should also be incorporated into any and all user testing regimes, and should never be seen as an isolated event that can occur after other user testing has taken place. Designing for accessibility is thus as much a strategic issue as a purely technical one. Accessibility does not require that all pages be limited to plain text. More sophisticated and innovative pages can and should also be made accessible. In general, this involves provision of alternatives to an otherwise inaccessible feature, rather than any requirement to avoid innovative design».

<sup>3</sup> St. L. Talbott, *Can Human Ideals Survive the Internet?*, in idem, *The Future Does Not Compute: Transcending the Machines in Our Midst*, New York 1995, Ch. 1, etiam in «Internet» 2006, <http://www.praxagora.com/stevet/fdnc/ch01.html>: «False comparisons. Many people assume that computer technology is leading us out of the television wasteland, "because now everything is interactive." But this overlooks almost the entire significance of interactivity, which enables us to put the video screen to extensive new uses. We couldn't do our banking or coordinate our engineering projects by television; with the computer, we can. The important thing about interactivity is not that it redeems old forms of entertainment (it doesn't), but rather what it does to the new activities now being adapted to the video screen. Making sitcoms interactive will not lead to cultural transformation, but there's every reason to expect, for example, that moving local, face-to-face politics online will tend to change the character of those politics in the direction of what we've already seen happen to televised politics. Interactivity, in other words, does not salvage the preexisting wasteland, but it may well reduce huge tracts of once-thriving adjacent territory to semiaridity. The argument based on interactivity would have us say, in effect, "Look how much greener than the desert this new, semiarid land is!" Meanwhile, by means of the computer, concrete human activity itself is invited toward passivity, automatism, and lowered consciousness. This is a momentous development. The sleight of hand in the argument

### 3• *The emotional involvement of each one*

The emotionalism makes in a way that the communication becomes desirable or that it couples few appreciable. In the net, the desirability rises from the information in which a mental incentive is found, operational or of emotional pleasure. The information that shows 'contagious' is called a 'meme'.<sup>1</sup> It imposes in the mind and serves and makes way from an individual to the other.

#### The incentive to liberation of the emotionalism

With the net, a series of individual obstacles are loosen to the expression of the emotionalism, creating a kind of 'family' in the bonds that also weave without individual presence, jumping the limits of the 'face to face'.<sup>2</sup>

#### Responsibilisation or breakup of the individual?

It could be feared that the net report of Internet bring to the breakup of the individual importance of the person. The involvement of the public on the theme of its own health through investigations online points out a responsabilisation of those people that participate (it would be said of the 'self-regulation' to self-care).<sup>3</sup> On the other hand, through this type of consultation, it seems to disappear

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about interactivity is repeated on many fronts. To cite one other example: the informality of much computer-mediated communication is often seen as a recovery of the direct, the personal, the participatory, the emotionally expressive. Many observers, contrasting this "new orality" with formal or "literate" communication, see the computer carrying us back to earlier, more vivid and personalized forms of human exchange. But the relevant comparison is not between oral and literate. It is between the genuinely oral communication that once took place face-to-face, and the "secondary orality" now electronically replacing that communication. Here we see the computer's influence running exactly counter to the usual thesis: informal communication is tending toward the abstract, disengaged, and remote, with feeling conveyed indirectly through the artifice of written expression, and participation unavoidably constrained by the narrower channel. I should add that the ease with which this sleight of hand succeeds-- and anyone willing to spend time perusing a selection of Net discussion groups can quickly verify the success -- is itself testimony to an idealism loosed from reality».

<sup>1</sup> H. "Gizmo" Rosenberg, *The Internet and Re-Emergence of The Meta-Mind*, in «Internet» 2006, <http://www.meta-gizmo.com/intro/metamind.html>: «Glenn Grant: Meme (pron. meem): A contagious information pattern that replicates by parasitically infecting human minds and altering their behavior, causing them to propagate the pattern. (Term coined by Dawkins, by analogy with "gene".) Individual slogans, catch-phrases, melodies, icons, inventions, and fashions are typical memes. An idea or information pattern is not a meme until it causes someone to replicate it, to repeat it to someone else. All transmitted knowledge is memetic. H. Keith Henson: A meme survives in the world because people pass it on to other people, either vertically to the next generation, or horizontally to our fellows. This process is analogous to the way willow genes cause willow trees to spread them, or perhaps closer to the way cold viruses make us sneeze and spread them. Peter J. Vajk: It is important to note here that, in contrast to genes, memes are not encoded in any universal code within our brains or in human culture. The meme for vanishing point perspective in two-dimensional art, for example, which first appeared in the sixteenth century, can be encoded and transmitted in German, English or Chinese; it can be described in words, or in algebraic equations, or in line drawings. Nonetheless, in any of these forms, the meme can be transmitted, resulting in a certain recognizable element of realism which appears only in art works executed by artists infected with this meme. Heith Michael Rezabek: My favorite example of a crucial meme would be "fire" or more importantly, "how to make a fire." This is a behavioral meme, mind you, one which didn't necessarily need a word attached to it to spring up and spread, merely a demonstration for another to follow. Once the meme was out there, it would have spread like wildfire, for obvious reasons... But when you start to think of memes like that -- behavioral memes -- then you can begin to see how language itself, the idea of language, was a meme. Writing was a meme. And within those areas, more specific memes emerged. Lee Borkman: Memes, like genes, vary in their fitness to survive in the environment of human intellect. Some reproduce like bunnies, but are very short-lived (fashions), while others are slow to reproduce, but hang around for eons (religions, perhaps?). Note that the fitness of the meme is not necessarily related to the fitness that it confers upon the human being who holds it. The most obvious example of this is the "Smoking is Cool" meme, which does very well for itself while killing off its hosts at a great rate».

<sup>2</sup> Liav Sade-Beck, *Internet Ethnography: Online and Offline*, in «International Journal of Qualitative Methods», 3 (2) June, 2004, pp. 2-3, etiam in «Internet» 2006, [http://www.ualberta.ca/~iiqm/backissues/3\\_2/pdf/sadebeck.pdf](http://www.ualberta.ca/~iiqm/backissues/3_2/pdf/sadebeck.pdf): «Vast amounts of data and links to additional, related sites provide a huge storehouse of available information; thus, the Internet is a technological innovation tightly linked to social change. These social changes have clear implications for the patterns of expression of emotions. Online communication on the Internet facilitates the expression of emotions (output) and the input of emotional messages, thus developing and reinforcing important social ties between users, forming a system of relationships similar to ties of family and friendship, all taking place without participants being physically present».

<sup>3</sup> J. Advocat, *Internet clinical trials: examining new disciplinary experiments in health care*, in «Anthropology Matters Journal» 2005, vol. 7 (1) (<http://www.anthropologymatters.com>)(Monash University, Australia), in «Internet» 2006, <http://www.anthropologymatters.com/journal/2005-1/index.html>: «Online RCTs have the potential to change clinical research in much more drastic ways. Ultimately, entire RCTs can be conducted where the participant does not have to leave his or her home. Assuming access to a computer, [1] the participant will be recruited via a website or internet-based advertisement and can enroll, via the web, into a trial. The implications of the increased ease with which participants are asked to self-diagnose and locate for themselves, current trials that they may enter mirrors the trend in the United States of direct-to-consumer advertising of pharmaceutical products. The effect such activities have on participants could be read through an analysis of self-care and the notion of responsibility of individuals caring for their own health and being a responsible consumer. Following recruitment, potential participants will be checked for eligibility. Informed consent, as shown above, could then be obtained and the participants would be randomized into a particular intervention.

the datum of the subjective concreteness of the context of life and the same individual person that takes over as answered to the investigation.<sup>1</sup> Will it be this narrowness that respect will be introduced to the relationality through the net?

### New audiovisual proximity through Internet and further personalization?

In the measure in which Internet remains an exchange through 'it engages, can be deduced that the 'medium is impersonal and alienant,<sup>2</sup> but if it develops in a possibility of visual contacts and audio will it had to affirm its incapability to arouse subsequently or to exchange emotions of love, sadness, joy?

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Delivery of the intervention could, depending on the specifics of the treatment being evaluated, be approached in an online format, and data could be entered throughout the trial from the participant's home computer. It is here that the notion of self-care is most explicitly played out in online RCTs implying an increasing responsibility on the part of the participant. However, as the prospect of trials run completely online becomes more mundane, trials may reach increasingly larger numbers of people. And, in this way, the administration and monitoring of a *population's* health becomes increasingly adaptable. So, while the mandate for increasing self-care is promoted, the ability to monitor a population is likewise increasing, creating a new atmosphere for the care of participants in research and by extension, patients. From their enrollment into an online RCT, participants become responsible for their participation at all stages throughout the trial, in ways that may be different from enrollment in a traditionally run RCT. The idea of clinical research where the participant is never seen is novel and its implications are many, for fields across the health disciplines from psychology to cardiology».

([1] Access to a computer cannot be assumed. EBM proponents hope to reach a typically under-represented population (i.e. people with low socio-economic status, rural populations and developing countries) through online RCTs. This goal is complicated and compromised by the low levels of access, for these populations, to technologies that we, in the developed world, take for granted.)

<sup>1</sup> J. Advocat, *Internet clinical trials: examining new disciplinary experiments in health care*, in «Anthropology Matters Journal» 2005, vol. 7 (1) (<http://www.anthropologymatters.com>)(Monash University, Australia), in «Internet» 2006, <http://www.anthropologymatters.com/journal/2005-1/index.html>: «Paul Rabinow (1992) speaks to shifting subjectivities, as computers become part and parcel of medical practice. He discusses aspects of the Genome Project but his comments apply here to the implications of online medical research. I am interpreting the following quotation as alluding to concepts of both governmentality, where individuals are shaped through the control of populations, and to ANT, in that it illustrates the way in which computers play an active role in a network that is comprised also of humans. He says, 'Through the use of computers, individuals sharing certain traits or sets of traits can be grouped together in a way that not only decontextualizes them from their social environment but also is nonsubjective in a double sense: it is objectively arrived at, and does not apply to, a subject in anything like the older sense of the word (that is, the suffering, meaningfully situated integrator of social, historical and bodily experiences). Computerized series dissolve the traditional subject and retain only abstract givens as part of factors in a series. The target is not a person but a population at risk' (1992: 243)».

<sup>2</sup>Liav Sade-Beck, *Internet Ethnography: Online and Offline*, in «International Journal of Qualitative Methods», 3 (2) June, 2004, pp. 2-3, etiam in «Internet» 2006, [http://www.ualberta.ca/~iiqm/backissues/3\\_2/pdf/sadebeck.pdf](http://www.ualberta.ca/~iiqm/backissues/3_2/pdf/sadebeck.pdf): «On one hand, communication through the Internet provides immediacy, accessibility, and continuousness to the expression of emotion; on the other hand, it differs from face to face communication. When both parties are present, physical and visual interaction provides details on the identity of users and about the situation eliciting the emotion. This phenomenon questions the essence of emotions, the degree to which they are concrete, and their mode of expression in virtual space. Can emotions really be expressed through an "impersonal" or "alienated" computer technology? Can we express emotions of love, pain, or sorrow through a communication medium based on reading and writing, but lacking any visual physical expressions?».