



# Ethical Challenges of the Information Society in the 21st Century

RAFAEL CAPURRO\*

## ABSTRACT

The paper deals with theoretical and practical challenges of the information society in the 21st century. In the first part an overview of past and current activities in the field of information ethics at UNESCO is provided (Virtual Forum, Second International Congress on Information Ethics, Observatory on the information Society). The second part presents a historical interpretation of the development of modern information society with the emerging networked world society with its characteristics of interactivity and decentralization. The diversity of moral norms and traditions within this global medium gives rise to the question concerning an Internet-morality as a challenge to ethical thinking. The third part deals with the question of our identity within the framework of a digital ontology. The concepts of “net” and “information” are analysed. A future information ethics is based on a digital ontology. Living in the information age is considered from the point of view of both an ethical imperative and the art of living.

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## INTRODUCTION

January 11, 2000: The International Federation of Journalists (IJF) warns that democratic values and free speech will be threatened by the merger between AOL and Time Warner. According to the IJF's General Secretary, Aidan White, “this merger may redefine the worlds of entertainment, communication and commerce, but it may also threaten democracy, plurality and quality in media”. And he added: “We are now seeing the dominance of a handful of companies controlling information and how that information reaches people. Unless action is taken to

\*Fachhochschule Stuttgart, University of Applied Sciences, Stuttgart, Germany

ensure journalistic independence we face a dangerous threat to media diversity.”<sup>1</sup> Is the Internet a threat to democracy and/or to the information monopoly of 20th century mass media?

At the beginning of the 21st century, the production, selection, design, storage, transmission, retrieval and use of information in society is changing society dramatically from a hierarchical, top-down, mass media society into an interactive, bottom-up, networked society. The freedom of information, at the core of every free human society, is an important ethical, legal and political question with a worldwide impact. Information ethics is not a peripheral social discourse but a hot topic at the networked intersection of cultures and political regimes. This paradigm shift is no less important than the shift from the Gutenberg technology to the electric and electronic mass media of the 19th and 20th centuries or from an oral society to a written one. In a networked world the place of morality seems to be paradoxically more basic than the role of legal norms. Of course, the Internet does not exist in a legal vacuum, but legal regulations based on different political systems and cultural traditions and limited to geographical boundaries give rise to all kinds of challenges within a global medium. Now the question is: will this diversity of systems and traditions lead to a world information ethos based on the principles or *minima moralia* of the Universal Declaration of Human Rights, and if so, how quickly. One necessary, although not sufficient, condition for this is an intercultural ethical discourse. In the second part of this paper I will discuss the challenge of Internet morality and the task of ethics.

The third part of the paper deals with our understanding of ourselves as digital cosmopolitans. The Internet is not only changing the social structures of single societies and the interactions between them but also more basically, the self perception of what it means to be a human being today—and tomorrow. It seems that after the bankruptcy of the social utopias and dystopias of the 19th and 20th centuries a new kind of universality based on the worldwide digital network is rapidly emerging that may be different in kind from the one dreamt of by the Enlightenment and propagated in the second half of the 20th century by German philosophers such as Karl-Otto Apel and Jürgen Habermas with their theory of “unlimited communication society”. It is interesting to remark that even Vilém Flusser could not foresee in his “Communicology” the rise of such a complex form of universality as the one created by the

<sup>1</sup>White, A. (2000) New Media Giant: Dangers to Democracy in Rich-Poor Divide and Threats to Editorial Independence Says IFJ: <http://www.ifj.org/publications/press/pr/115.html>

Internet and its merging with the mass media into a new information culture.<sup>2</sup> The core questions of information ethics in this new century are the growth, speed, and the complexity of this system and its impact on the everyday lives of millions of people along with the dangers of a digital divide.

As the Ancients said, *modus operandi sequitur modum essendi*—Action follows being. Who *are* we? What is the mold or the casting by which we define what we would like to be as individuals and as a world society? What are the procedures through which we manage to define as individuals and as a global society what we think to be unacceptable and desirable? What kinds of interactions do we wish to have inside and between our political and economic systems in all their diversity? What is the role of net communities and the impact of traditional organizations such as the NGOs (Non-Governmental Organizations) in working on a networked basis in matters affecting the natural, cultural and economic conditions of millions of people? How do these communities and organizations interact with national and international political bodies? And finally, how do we re-interpret our ethical traditions within this new digital environment? This last question is, of course, of such a magnitude that it can only be discussed within a broad and long-term intercultural dialogue. In other words, ethics is not just a matter of norms but concerns our art of living as a whole. I will introduce this subject in the third part of this lecture.

But let me first point to the ethical issues of information society following the paths opened up by UNESCO in recent years.

#### ETHICAL ISSUES IN INFORMATION SOCIETY

From October 1997 to April 1998 UNESCO started a worldwide virtual forum on information ethics.<sup>3</sup> This forum was organized by Rainer Kuhlen (University of Constance, Germany). It was structured in two rounds. In the first round the following topics were discussed:

1. The concept of information ethics and the role of UNESCO.
2. Societal/political aspects of information ethics. This topic included: Information rich and information poor; information as a public and/or private good.
3. Ethical aspects of global information markets. This topic included: trust, ownership, and validity of information; privacy, confidentiality, security, hate, violence on the internet.

<sup>2</sup> Flusser, V. (1996) *Kommunikologie*. Mannheim. Bollmann Verlag.

<sup>3</sup> UNESCO Virtual Forum - INFOethics: <http://www.de3.emb.net/infoethics/>

The second round was focused on privacy, information gap, science/education, and information market/public role. I served as chair of the topic "Information rich and information poor". Each chair presented a summary of recommendations that were reported at the *Second UNESCO International Congress on the Ethical, Legal and Societal Challenges of Cyberspace* from 1–3 October 1998 in Monte-Carlo.<sup>4</sup> The first one on *Ethical, Legal, and Societal Aspects of Digital Information* took place in March 1997, also in Monte Carlo.

As an example of the recommendations that came out of the discussions I will mention only those from the group I had the pleasure and the honor to chair, namely: Rich and Poor Countries.

UNESCO should work:

1. To bring net access to poor countries by putting existing resources to sensible use in order to promote the development of global and local information cultures and economies.
2. To support the development of a World Information Ethos.
3. To create country-specific information centers in information-poor countries.
4. To promote public awareness on these matters through virtual forums, publications, and conferences.
5. To provide permanent, specific, and detailed knowledge of existing information activities in information poor countries.
6. To promote the rights of non-English-speaking-countries and their economic interests.
7. To include topics in information ethics in curricula at all levels.
8. To encourage grassroots efforts, decentralized, as well as coordinated activities through international organizations.

The UNESCO INFOethics '98 Congress was attended by 160 participants from 66 countries and representatives from twelve international intergovernmental and non-governmental organizations. There were six roundtables with a total of 28 speakers from 23 countries. Allow me to summarize the topics:

- Roundtable 1 was devoted to information in the public domain. The question of how to provide freedom of access was discussed with regard to state intervention and responsibility. The role of free software to counter the influence of commercial interests was also underlined. Besides the problem of inequality of access, there is the problem of abuse for criminal purposes.

<sup>4</sup> UNESCO INFOethics'98 <http://www.unesco.org/webworld/infoethics2/eng/proceedings.htm>

- Roundtable 2 discussed multilingualism, embracing questions such as developing intelligent linguistic systems, encouraging the diffusion of cultural heritage, and the discrimination of populations created by the dominance of English.
- Roundtable 3 was concerned with privacy and confidentiality rights. There is a need to increase trust and reliability in information networks, especially by applying Article 12 of the UDHR to project privacy issues onto the international agenda.
- Proprietary and security rights were the topic of roundtable 4. There is a tension between proprietary rights and using this right to reduce public access, especially for the benefit of institutions concerned with education, science and culture. The role of collective proprietary rights of indigenous peoples was stressed as well as the role of libraries in supporting user-orientation.
- Roundtable 5 dealt with information literacy. There is an urgent need for educating users, particularly teachers, in using new technologies. One segment of the population that should be given priority are children. The role of distance learning was highlighted. Some mechanisms and actions were suggested such as launching a series of studies, developing an observatory of best practice, and continuing the dialogue initiated in this conference through different kind of forums.
- Finally, roundtable 6 was devoted to social, economic and multicultural responsibilities. Issues such as the question of global governance, social exclusion (digital divide) and the ideological use of filtering systems were discussed. Roundtable members suggested that the key players—community leaders, information professionals, industry representatives as well as political leaders, information professionals, industry representatives as well as political leaders and regulators—should be brought to the same table in order to debate this critical field.

At the end of its work, the Congress issued a statement to emphasize the role of UNESCO for: (1) the promotion of information in the public domain; (2) multilingualism; (3) the protection of privacy and confidentiality; and (4) the security issue. These concerns are founded on the Universal Declaration of Human Rights, specifically on Articles 19 (freedom of opinion and expression) and Article 12 (privacy).

In the meantime UNESCO has created an *Observatory on the Information Society*, managed by Victor Montviloff. Its main objectives are to:

1. Raise awareness on the constant evolution of ethical, legal and societal challenges brought about by new technologies;

2. Provide up-to-date information on the evolution of Information Society at the national and international levels; and
3. Foster debates on related issues.

The web-site is structured as follows:

- Globalization: Action Plans, Policies;
- Privacy & Confidentiality (includes: cryptography, global e-commerce and trans-border privacy);
- Content Regulation (includes: intellectual property rights, copyrights, freedom of expression);
- Universal Access (includes: on-line governance, accessibility for all, virtual libraries, and multilingualism).

For each of these *entry points* there is up-to-date information in the form of *News Briefs* in English, French and Spanish along with a selection of links and documents.<sup>5</sup>

All these technical and socio-cultural issues of the information society are at the same time ethical issues in the sense that they are at least implicitly founded in ethical theory. Let me try to summarize some of the main ethical issues of information society in the 21st century by using the labels of the Observatory as orientation:

### *Globalization*

The digital divide inside a community and/or country as well as between countries, regions and whole continents is the major issue in this field. The danger of digital colonialism through global players in the name of free-market principles and entrepreneurship cannot be ethically, or even legally, taken for granted, as the Microsoft case clearly shows. Free software, such as LINUX or CD-ISIS, provide compensation in the sense of *iustitia distributiva*, giving everybody an equal opportunity for digital development. But there is also a need for deliberate balancing or compensation (*iustitia commutativa*), particularly with regard to groups or societies which are not even able to profit from a fair use situation. This is the situation, for instance, in many countries in Africa, Latin America and Asia, but also for minorities within a society. Think, for instance, about the children in Brazil's favelas, geographically isolated groups in rural societies, and the disabled in all societies. There is an urgent need for action plans and policies at both governmental and non-governmental levels. Public institutions such as libraries, schools, museums, etc. have a special responsibility for promoting a digital culture in accordance with local needs and traditions.

<sup>5</sup> UNESCO: Observatory on the Information Society <http://www.unesco-org/webworld/observatory/index.shtml>

*Privacy and Confidentiality*

These are big issues, particularly with regard to a world market that, as eBay and Amazon show, has basically different coordinates from political and geographical ones. There is a basic dynamic interaction between a culture of information-sharing and one of information protection. This creates an ethical tension between confidence and control or between methods of information distribution and information encryption. The dangers of misusing software for criminal purposes or, as in the case of some hackers' activities, "just for fun", are obvious. But there is also the at least *prima facie* legal use of data for market manipulation, such as Amazon's readers' list, that gives rise to reflection with regard to moral rules of self-regulation and fair play. Confidence is an ethical virtue that seems vital for a world society based on a decentralized balance of powers. The ethical challenge is how to create institutions and procedures that foster this virtue as an individual and social one without falling into Big Brother nightmares.

*Content Regulation*

This is one of the most tricky issues because of the specific qualities of the kind of good we call information, such as its volatility, its easy worldwide distribution and its non-consumption after its use. A whole economy that was based on the property rights of material objects has to shift into this new situation. Not all cultures are rooted in European modernity with its sense of individual rights and duties. Cultures that are basically oriented toward community rights and sharing processes, or in which the traditions of producing through imitation play a fundamental positive role, may be in ethical contradiction in a worldwide medium such as the Internet. This does not necessarily mean some kind of digital clash of civilizations such as Samuel Huntington suggests. There is a huge potential of hybridization between different kinds of creative potentialities. We need a Comparative Digital Culture Research that may start with Comparative Cultural Website Research and lead to synergies between different cultural interpretations of the freedom of expression. The cases of Hitler's *Mein Kampf* being digitally available under Bertelsmann's control, child pornography, and terrorist groups misusing the Internet make clear how necessary global agreements are and how difficult it is to achieve this within our present legal and cultural diversity. Action in these fields should be preceded and followed by global and local intercultural ethical reflection.

*Universal Access*

This issue concerns the question of growth and coordination of a decentralized and interactive system that is being monitored and influenced

by various actors and global players such as the hardware and software industry, the National Science Foundation (NSF), the Internet Society (ISOC), the W3-Consortium, various UN Agencies and NGOs, private groups of all kinds, etc. This “chaotic” management offers opportunities for creativity and balance, but also the potential for disorder and vandalism. The huge amount of all kinds of information on the Web gave rise to orientation systems such as search engines and portals that may guide but also manipulate their users in various ways. Multilingualism is an as yet unmet challenge and will be an essential indicator of cultural pluralism, one of the basic human rights. The question of access cannot be separated from the question of sustainability. This is a big technical and ethical issue, particularly for the emerging digital libraries and archives that are committed to the preservation of cultural heritages in digital form.

Who has done and is doing research in this field? What and where are the results? As I tried to answer these questions last year I was confronted with chaos. This unpleasant situation led me to create the International Center for Information Ethics (ICIE 2000).<sup>6</sup> I received strong support for this from my colleagues Wolfgang von Keitz (FH Stuttgart), Tom Froehlich (Kent State University), Marti Smith (Long Island University) and Barbara Rockenbach (Yale University) who had designed the information-ethics web-site at University of Pittsburgh and who now provides the mirror site of ICIE in Yale. Creating this virtual center was of course primarily an information-management challenge but, more basically, it was and is an effort to create a community of people who think together and communicate with each other about their projects in this field.

Finally I would like to mention UNESCO's *World Communication and Information Report 1999–2000* which provides statistical data as well as reports on the socio-cultural impact of communication and information technologies.<sup>7</sup>

#### THE CHALLENGE OF INTERNET-MORALITY AND THE TASK OF ETHICS

The relation “face to face” is, according to Emmanuel Lévinas, the basic ethical relation.<sup>8</sup> Information society is based on the interface. Therefore we live in a non-ethical society. Is this valid reasoning? Another kind

<sup>6</sup> International Center for Information Ethics (ICIE) <http://www.library.yale.edu/icie>

<sup>7</sup> UNESCO (1999–2000): *World Communication and Information Report 1999–2000* <http://www.unesco.org/webworld/wcir/en/index.html>

<sup>8</sup> Lévinas, E. (1968) *Totalité et Infini. Essai sur l'extériorité*, 3rd Edition, La Haye.



of reasoning could be: new media and global networking have created a kind of universal dialogue that is different from the one dreamt of and demanded by the Enlightenment and goes beyond Habermas' criticisms of the mass media society "as a degenerated public space, filled up with images and virtual realities".<sup>9</sup> But, in fact, the interface does not make Lévinas' insight about the interfacial relation as the ethical medium *par excellence* obsolete, but rather, mass media and particularly the Internet have created new conditions of human interaction that force us to restate the question of the medium as a core ethical question. I will now contrast briefly three information ethics paradigms, namely the freedom of speech in ancient Greece, modernity's freedom of the press and the question of freedom of access in our present and future information society.

In the Western tradition, particularly in Plato's dialogues, the question of knowledge mediation through living speech instead of the surrogate of writing plays a key role. This is already a transformation of the ancient pre-Socratic *ethos* where messages (Greek: *angelía*) were vertically transmitted from the centers of power such as gods or kings, poets being the mediators, i.e. announcers and interpreters (Greek: *hermeneus*), of such an *angeletic* process. The basis of such a "mytho-logical" information ethics is radically questioned by the new Socratic-Platonic paradigm of knowledge sharing on the basis of a horizontal discourse called *philosophia*.<sup>10</sup> The controversy between oral and written language and the thesis of what we call after Derrida, *logocentrism*, is much less important for Aristotle. His prosaic style as well as the difference between *esoteric* and *exoteric* writings give account of a transformation of the premises of information ethics coming from the Socratic-Platonic tradition. There is a shift from an ethics of information concealing to an ethics of information sharing. A classic example of the first one is Pythagoras. Paradoxically, it was Pythagoras who called himself a *philosophos* for the first time. Raffael of Urbino has portrayed both paradigms in his "School of Athens".<sup>11</sup> The information *ethos* of Greek society was based on the principle of freedom of speech a prerogative that was limited to male adult Athenian citizens. The Kynical school propagated a radical view of this freedom and used for it the word *parrhesia*.

The invention of printing and the process of what came to be called secularization offer some parallels to the information ethics controversy

<sup>9</sup> Habermas, J. (1995) Kants Idee des Ewigen Friedens. Aus dem historischen Abstand von 200 Jahren. *Information Philosophie*, 5, pp. 5–19.

<sup>10</sup> Capurro, R. (1996) On the Genealogy of Information. In K. Kornwachs, K. Jacoby (eds.) *Information. New Questions to a Multidisciplinary Concept*. Berlin. Akademie Verlag, pp. 259–270: <http://www.capurro.de/cottinf.htm>

<sup>11</sup> Capurro, R. (1999) Ethik im Bilde: <http://www.capurro.de/raffael.htm>

in antiquity. Again, there is the power of a hierarchical and dogmatic *angelic* structure that is being questioned not only by the basic assumption that everybody can interpret by her/himself the holy message, but also by the fact that, thanks to its translation into vernacular languages and its generalized printed distribution, everybody is able to obtain the Book and become an interpreter of a text and not just a viewer of images represented on the walls and windows of medieval cathedrals. Immanuel Kant formulated the demand for a free public space in his writings *Beantwortung der Frage: Was ist Aufklärung?*<sup>12</sup> and *Was heißt: Sich in Denken orientieren?*<sup>12</sup> Kant distinguishes between a private and a public use of reason. This distinction is counterintuitive with regard to our present understanding of these terms. For Kant the private use of reason was its use under political or religious constraints which was mostly of an oral kind, for instance face-to-face with a religious community. The public use of reason is the use we make of it without any kind of pre-established frames and duties with regard to a particular societal group but when we *publish* our thoughts and make them available to a universal “world of readers” (“Leserwelt”). Kant had the readers of the scientific community especially in mind. This is a reversal of the concepts of public sphere and publication in Antiquity. It is, as Kant says, a “reformation of the paradigm of thinking” (“Reform der Denkungsart”) because it introduces a universal censorship-free sphere, which he calls the “society of cosmopolitans” (“Weltbürgergesellschaft”). Printing as the medium for this sphere provides a potential universal availability of thought. The question of a universal medium was for Kant not just something additional to knowledge. The freedom of speech and writing cannot be separated from the freedom of thinking. He writes: “How and how rightly would we *think* if we would not think together with others, to whom we can *communicate* our thoughts and they theirs!”<sup>13</sup> In other words, it is not enough for authorities to say: “You are free to think what you want, but not to communicate it!” Thinking is a social process that cannot be disconnected from the medium through which it is shared. Kant’s medium of free public thinking was printing.

Kant’s information ethics is based on several dualisms: private *vs* public use of reason, scientific freedom *vs* citizen’s duties, orality *vs* printing, freedom of thinking *vs* freedom of acting, author *vs* publisher, freedom *vs* Censorship, etc. Jürgen Habermas has revisited this paradigm “from the historical distance of two hundred years”.<sup>14</sup> According to Habermas, Kant counted on the possibility of a free public discussion about the

<sup>12</sup> Kant, I. (1968) *Werke*. Berlin. Akademie-Ausgabe.

<sup>13</sup> *ibid*, p. 144.

<sup>14</sup> Habermas, J. (1995) *op.cit.*

relation between the constitutional principles and the “light-shunning” (Kant) intentions of governments. He counted on a transparent public sphere open to arguments and on the relatively small size of the group of educated citizens, his “republic of scholars” (“Gelehrtenrepublik”). But this public sphere has changed radically today. Kant could not foresee today’s media revolutions. The world of printing has developed into the opaque and chaotic “Gutenberg galaxy”. The public sphere was occupied later on by electronic media that, according to Habermas, dominate and distort it with their images and virtual realities. Habermas makes no difference between the hierarchical one-to-many structure of the mass media of the 20th century and the decentralized structure of the Internet, even though this text was published in 1995, after the Internet had already entered its phase of expansion. It was a different situation for Vilém Flusser who, in his *Communicology*, distinguishes between dialogical and discursive media. Since he died in 1991, however, he could not take into account what came upon the scene a few years later.<sup>15</sup> Dialogical media have the structure of circles or networks and are used to produce new information. Discursive media have a pyramidal structure and are used to distribute information. Flusser criticizes the mass-media society as a society in which the dialogical media are inserted into and dominated by the pyramidal structure of TV and broadcasting. He did not foresee a hybrid medium such as the Internet, where dialogical structures may become also a universal medium of information production and distribution. Although *prima facie* a written medium, Internet services such as virtual forums and mailing lists have some qualities of oral exchange. The freedom of the press is not threatened because AOL and Time Warner merge. What is threatened is the dual system of modernity with its separation of individual and mass media. We are not facing “a dangerous threat to media diversity”, but a historic opportunity for overcoming 20th century media monopoly, mediocracy, and its mediocrity—exceptions confirm the rule—as criticized by Flusser.

But, of course, the Internet is not the kind of super-medium its prophets proclaim it to be, mostly in the name of profit! Its universality is paradoxical since it makes explicit in an “uncommon” place the differences and contradictions between moral and legal information and communication norms in different states, regions and cultures. There is a tension between Internet moralities on the one hand, and what we could call a World Information Ethos on the basis of the *minima moralia* of the UDHR, on the other. This tension at the practical level is reproduced at the theoretical level. We are facing an inverted situation compared to the one we had in the last two hundred years. Since modernity,

<sup>15</sup> Flusser, V. (1996) *op.cit.*

freedom of information meant restricting state power on information and communication through the creation of a censorship-free space within a state or a group of states. At the end of modernity a universal medium may grant states and cultures their own particular rules. This is the key moral and ethical challenge to information society in the 21st century.

Freedom of information in a networked world does not necessarily mean anarchy or anomie. A minimum of political and legal consensus in specific questions, for instance, in the field of child pornography or terrorism, may leave enough freedom for an autonomous development of the Internet. Self-regulation is also in this case the elixir for creativity. At the same time, the institutionalization of the ethical, political and legal discourse in international governmental organizations such as the UN is necessary. Kant considered two conditions for the process of enlightenment: its institutionalization as a “permanent congress of states”, and the free distribution of printed works. Practical political consensus should be open to criticism and dissent coming from the non-governmental side. Free press and the abolition of censorship were the responses of modernity to the challenge of printing. This changed with the rise of broadcasting and TV and is changing now at the beginning of the 21st century with the Internet. The name of this change is “freedom of access” which includes not just freedom of obtaining information from an independent or “neutral” sender, but freedom of sending oneself as an individual and as a community. Economic, technical and physical barriers restricted this possibility up until now. The Internet may reduce these barriers but it may also create new ones through a worldwide digital divide. The ethical ideal of an “unlimited community of communication” propagated by the philosophers Karl-Otto Apel<sup>16</sup> and Jürgen Habermas<sup>17</sup> could be identified *prima facie* with a medium where bodily experience plays a secondary role. But the Internet is not a kind of ideal universal medium where pure minds may exchange rational arguments in a domination-free sphere. All kinds of mythologies about nature and the social impact of cyberspace make it often appear as a surrogate for religious ideals in the form of techno-theology. But cyberspace is not a preliminary stage to a kind of cyber-religion of pure digital beings nor is it a place where humankind may necessarily reach a higher degree of rationality, although it allows all kinds of social synergies and makes possible knowledge exchange in hitherto unknown ways.

The moral challenge of the complex non-hierarchical information society of the 21st century may be internationally engaged on the basis of

<sup>16</sup> Apel, K.-O. (1976) *Transformation der Philosophie*, Frankfurt am Main. Suhrkamp.

<sup>17</sup> Habermas, J. (1988) *Theorie des kommunikativen Handelns*. Frankfurt am Main. Suhrkamp.

the UDHR. But the conflicts between the legal, ethical and moral dimensions have to be solved at the level of the individual, institutions and society as a whole without the possibility of giving primacy *a priori* to the legal over the ethical and the moral dimensions (legalism), or to the moral over the legal and the ethical dimensions (fundamentalism), or to the ethical over the legal and the moral dimensions (ethical rigorism). In the *Nicomachean Ethics* Aristotle writes that “we should not strive for the same kind of accuracy (*akribés*) in the same way in all kinds of investigations”.<sup>18</sup> This is particularly the case with questions concerning what is good or appropriate for human beings already within the global framework of the state (*polis*) with its “oppositions” (*diaphorán*) and “instabilities” (*plánen*). Our “differing” and “unstable” human nature is looking for a home on the Internet. Through the transparent accuracy of the digital, the twilight and disturbing fuzziness of human existence shines forth. The result is an uncanny medium, a global network, where homepages provide only an awkward dwelling place.

#### DIGITAL COSMOPOLITANISM AND THE ART OF LIVING

Sinope is a smalltown on the Black Sea. When Diogenes of Sinope was asked in the metropolis Athens where he came from, he answered: “I am a citizen of the world” (*kosmopolítēs*).<sup>19</sup> Who are we today? We are digital cosmopolitans—or “netizens”—from Sinope. Diogenes was telling the Athenians that to be a citizen of the world means more than to be born in Athens. The Athenians wanted him to acknowledge that he came from a small provincial town. We live in the digital cosmos but this is not the opposite of a metropolis nor of a provincial town. Roland Robertson calls this hybridization between the local and the global “*glocalization*”.<sup>20</sup> The debate between universalists and particularists is more subtle today than in the times of the Enlightenment. The following three hundred years of European history have been dominated by the contradiction between cosmopolitanism and national state. Today we are confronted with different kinds of cultural hybridization. Japanese society is an interesting example of what we could call a non-European modernity. In other words, modern technology does not add up to Western society, homogenization and domination by Western technological

<sup>18</sup> Aristotle: *Ethica Nicomachea* 1094 b 12.

<sup>19</sup> Busch, H.J., Horstmann, A. (1976) Art. Kosmopolit, Kosmopolitismus. In: J. Ritter, K. Gründer (eds.) *Historisches Wörterbuch der Philosophie*, Darmstadt. Wissenschaftliche Buchgesellschaft. Vol. 4.

<sup>20</sup> Robertson, R. (1995) Glocalization as Hybridization. In: M. Featherstone, S. Lash, R. Robertson (eds.): *Global Modernities*. London.

civilization. There is not *the* one, unique modernity nor *the* one, unique project of modernity. Modifying Heidegger's formula we could say that our being is a being-in-the-networked-world.<sup>21</sup> But what is a net?

Although this concept pervades our lives and our scientific paradigms there are only a few literary and philosophical investigations on this subject. Let me recall some classical texts. In the *New Testament* (Matthew 4, 20) we read: "Soon they abandoned their nets and followed him". After the resurrection, Jesus appeared at Lake Tiberias and said to Peter and others: "Throw your nets to the right of the ship and you will find fish." (John 21, 6). Nets, particularly fisher's nets, are useful for living but we can also become entangled in them and become ensnared like prey. When Odysseus killed the suitors, they laid down "like fish fishermen pulled out of the bluish sea in the different meshes of their nets into the hollow cliffs" (Od. 24, 386). The meaning of "net" was ambivalent for thousands of years. Building a net, i.e. the art of spinning, is a common metaphor for thinking and living. Sometimes we follow the thread of an argument or we lose the thread of what someone was saying. At other times we try to gather up the thread of our life, we weave a web of lies or we just thread our way through the crowd. Today the net concept is used less in an agrarian than in a technical non-ambivalent context like the networks of streets and rails, telephones and air routes, electricity and media. Computer networks are used to simulate neural ones and vice versa. Due to these mainly positive connotations we have high expectations with regard to computer networks. They promise us, as the Austrian philosopher Gerhard Fröhlich remarks, a free flow of information, the elimination of spatial inequalities, and easy learning.<sup>22</sup> In the social field networks suggest an even structure of threads, meshes and knots. But, in fact, spinning our lives is a highly differentiated and creative activity and there is no thread of Ariadne to help us out of the labyrinth of life.

The Italian philosopher Gianni Vattimo has remarked that, since the 19th century, philosophy has been dominated by the engine metaphor.<sup>23</sup> The diametrically opposed figures, Heidegger and Adorno, were afraid that because of the dominance of deterministic mechanism we would lose the dimensions of the unexpected and freedom. According to Vattimo, postmodernity means saying goodbye to the engine metaphor and welcoming the net metaphor. This metaphor implies giving up the idea of a center as well as of a final knot, the Cartesian *fundamentum inconcus-*

<sup>21</sup> Heidegger, M. (1976) *Sein und Zeit*. Tübingen. Niemeyer. 13th edition.

<sup>22</sup> Fröhlich, G. (1996) Netz-Euphorien. Zur Kritik digitaler und sozialer Netz(werk)metaphern. In: A. Schramm (ed.) *Philosophie in Österreich*, Wien, Verlag Holder-Pichler-Tempsky, pp. 202–306.

<sup>23</sup> Vattimo, G. (1997) E una rete senza centro ma ci dà un premio: la libertà. In: *Telega* 8, pp. 3–5.

*sum.* Under these premises philosophy has to rethink the concepts of freedom and history and also the concept of the Self. The Self is no longer the identical Ego but emerges dynamically not only out of the neuron web of our brains but, as Hannah Arendt remarks, out of the “web’ of human relationships” we call our lives.<sup>24</sup> Our lives are what are in-between, our “interests,” which include not only the disclosure of some worldly reality but also of ourselves to each other. This second subjective in-between is, as Arendt remarks, “not tangible”, but “no less real than the world of things we visibly have in common. We call this reality the “web” of human relationships, indicating by the metaphor its somewhat intangible quality.”<sup>25</sup> We have now begun to weave, in the digital medium, a World Wide Web. The 21st century will produce a digital culture whose morality or art of living is already emerging. Sherry Turkle<sup>26</sup> and Esther Dyson<sup>27</sup> tell us some of the stories of how “Life on the Screen” and “A Design for Living in the Digital Age” is shining through already.

Information ethics is confronted with the challenge of thinking about the conditions of possibility of living projected by the digital casting of being. As the scholastic said: *modus operandi sequitur modum essendi*. Action follows being. We live in the information age. But what is information? It is one of the most controversial concepts of the 20th century.<sup>28</sup> This complexity can be reduced, in a first step, to two controversial interpretations: for the first, information is a specific human phenomenon, inseparable from human culture; for the second interpretation it is something pervading all reality that can be equated, as the word itself suggests,<sup>29</sup> with the concept of form or structure. There is a gulf separating the culturalists from the naturalists.<sup>30</sup> One solution to this dilemma are the paths of thinking opened up by the physicist Carl-Friedrich von Weizsäcker. He connects the concept of information with such traditional concepts as “*idea*” and “*morphé*” as coined by Plato and Aristotle.<sup>31</sup>

<sup>24</sup> Arendt, H. (1958). *The Human Condition*. The University of Chicago Press, p. 183.

<sup>25</sup> *ibid.*

<sup>26</sup> Turkle, S. (1995) *Life on the Screen: Identity in the Age of the Internet*. New York. Simon & Schuster.

<sup>27</sup> Dyson, E. (1997) *A Design for Living in the Digital Age*. New York. Broadway Books.

<sup>28</sup> Capurro, R., P. Fleissner, W. Hofkirchner (1999): Is a Unified Theory of Information Feasible? A Trialogue. In W. Hofkirchner (ed.) *The Quest for a Unified Theory of Information*. Proceedings of the Second International Conference on the Foundations of Information Science, Gordon and Breach Publishers, pp. 9–30 <http://www.capurro.de/trialog.htm>

<sup>29</sup> Capurro, R. (1978) Information. Ein Beitrag zur etymologischen und ideengeschichtlichen Begründung des Informationsbegriffs. München. Saur. <http://www.capurro.de/info.html>

<sup>30</sup> Capurro, R. (2000) Informationsbegriffe und ihre Bedeutungsnetze. Ethik und Sozialwissenschaften (in press) <http://www.capurro.de/ropohl.htm>

<sup>31</sup> Weizsäcker, C.-F. v. (1974) Sprache als Information. In: *ibid.: Die Einheit der Natur*. München. Deutscher Taschenbuch Verlag, p. 51.

According to Weizsäcker, “information is only what can be understood,” i.e. it is related to human language, but, and this is an ontological thesis, “information is only that which produces information”.<sup>32</sup> To put it in other words: information is the “known form” and the form or structure of things that reproduce themselves. This last dimension is called by Weizsäcker “objectivized semantics”. Being part of the evolutionary process where “in-formation” is produced and known, we cannot take a position outside of it. This is the reason why, according to Weizsäcker, human language is of a fuzzy nature and our efforts to create unambiguous concepts, i.e. information, are limited. This situation, similar to the principle of indeterminacy in quantum mechanics, is, depending on the point of view, a danger or an opportunity.<sup>33</sup> What follows from this for an ethical theory of information in general and for an ethics of information society in particular? We could tentatively try to formulate an imperative like: “Thou shalt not damage in-formation” or, positively said: “Thou shalt produce in-formation.” The Oxford philosopher Luciano Floridi puts it this way:

- “0. entropy ought not to be caused in the infosphere (null law)
- 1. entropy ought to be prevented in the infosphere
- 2. entropy ought to be removed from the infosphere
- 3. information welfare ought to be promoted by extending (information quantity), improving (information quality) and enriching (information variety) the infosphere”.<sup>34</sup>

But do we not have more than enough information in information society? It seems that this imperative would make the situation even worse than it is! Information society produces and deletes myriads of bits every day. The information ethical imperative makes sense when it is understood under the ontological premise that being should be preserved and improved or that being is better than non-being. In information society the question of being is stated in terms of digitization. According to the famous *dictum* of Bishop Berkeley: “Their *esse* is *percipi*”.<sup>35</sup> Nothing can be real without a mind perceiving things. Kant and Berkeley are constructivists. Kant leaves our knowledge about the activity of the divine architect void and splits the real into given data and the human constructors’ rules. Today we live in the age of digital

<sup>32</sup> Weizsäcker, C.-F. v. (1974) *Materie, Energie, Information*. In: *ibid.: Die Einheit der Natur*. München, *op.cit* (1973) *Zeit und Wissen*. München, Hanser, pp. 351–352.

<sup>33</sup> Weizsäcker, C.-F. v. (1992) *Zeit und Wissen*. München, Hanser, p. 344.

<sup>34</sup> Floridi, L. (1999) *Information Ethics: On the Philosophical Foundation of Computer Ethics*. <http://www.wolfson.ox.ac.uk/~floridi/ie.htm>

<sup>35</sup> Berkeley, G. (1965) *The Principles of Human Knowledge*. In: *Berkeley's Philosophical Writings*. New York, Macmillan Publishing Company, p. 62.



constructivism. What cannot be digitized is not (real). To be, is to be digital. *Esse est computari*. This thesis does not simply deny the existence of matter. It is at the same time an epistemological and an ontological thesis: we believe that we have understood something in it's being when we are able to make it or to re-make it digitally. Digital beings are not just the sum of their bits. They must have a form or structure. Being is in-formation. *Esse est informari*. The old dichotomy matter/form is substituted by a new one: electromagnetic medium/digital forms.<sup>36</sup> But, following Weizsäcker, there is a circularity between knowing and producing forms that seems basic to any kind of information process, not just to the digital information process. Nevertheless the digital casting of being seems to have hegemony in the 21st century.

What is the impact of digital ontology on human affairs? In the human sphere the general digital imperative can be formulated as follows: "Thou shalt not damage other people's digital data." This human digital imperative—a modified form of classic ethical imperatives such as "Thou shalt not kill," or "Thou shalt not lie"—seems to me necessary since our private and public lives are becoming more and more conditioned by their digitization. Digital vandalism may damage a whole economy and ruin the lives and affairs of millions of people. Although humanism, i.e. the primacy of the perpetuation of human "in-formation" underlies this imperative, it would be ethically unwise to restrict, this imperative to human data since our lives are immersed or networked in an "in-formation" process that was not initiated by us and whose potentialities and scope remain partially veiled. Our unveiling processes through different ontological castings are always tentative. It would be a terrible misunderstanding to conceive today's digital ontology as a meta-physical dogma denying all other castings of being their own unveiling properties. This digital casting also does not necessarily mean reducing all beings to their computability, but it can be conceived as a medium for creative "in-formation".

What does it mean to live in a networked world? Following Habermas, Michel Foucault distinguishes, between three types of technology, namely:

- "technologies of production, which permit us to produce, transform, or manipulate things;"
- "technologies of sign systems, which permit us to use signs, meanings, symbols, or significations;"

<sup>36</sup> Capurro, R. (1999) Ich bin ein Weltbürger aus Sinope. Vernetzung als Lebenskunst. In: P. Bittner, J. Woinowski (eds.): Mensch - Informatisierung - Gesellschaft. Münster: LIT Verlag, pp. 1–19 <http://www.capurro.de/fiff.htm>

- “technologies of power which determine the conduct of individuals and submit them to certain ends or domination, an objectivizing of the subject”.

But he adds to them a fourth and decisive one, namely:

- “technologies of the self, which permit individuals to effect by their own means or with the help of others a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection, or immortality.”<sup>37</sup>

These four types of technology interact with each other. According to Foucault, who adheres to Pierre Hadot’s views on the nature of Greek and Roman philosophy,<sup>38</sup> the most important moral principle in ancient philosophy was: “Take care of oneself”. Modern information technologies are, no less than ancient technologies of writing, non-neutral,<sup>39</sup> i.e. they have to be conceived and used, individually and socially, as practices of self-regulation.<sup>40</sup> Western ethics has been dominated since the Enlightenment by the ideal of universal norms or “oughts” that, although within the individual, operate in a heterotopian or absolute manner. This kind of “code-oriented” morality (Foucault) leaves aside the older tradition of “self-oriented” morality. We need neither an apparent harmonic integration nor the discrimination of one from the other, but a productive tension between both.<sup>41</sup> This is also the case with regard to information ethics. While the ethical categorical imperative allows the moral limits of actions (“Thou shalt not...”) to appear, the ethical hypothetical indicative, as we could call it, looks for successful forms of life in the sense that they are the product of a common and fair process of deliberation, where “We need...”, “We wish...”, “May we...”, “Would you like...”, “Do you prefer...”, indicate different kinds of life projects and castings within the framework of mutual respect, care for each other, and creativity. Thus cyberspace may become a medium for

<sup>37</sup> Foucault, M. (1988) *Technologies of the Self. A Seminar with Michel Foucault*. L. H. Martin, H. Gutman, P. H. Hutton (Eds.) The University of Massachusetts Press, p. 18.

<sup>38</sup> Hadot, P. (1993) *Exercices spirituels et philosophie antique*. Paris. Institut d’études augustiniennes; Hadot, P. (1995) *Qu’est-ce que la philosophie antique?* Paris. Gallimard.

<sup>39</sup> Froehlich, Th. (1990) Ethics, Ideologies and Practices of information technology and systems. In: *Information in the year 2000: From research to applications*. Proceedings of the 53rd Annual Meeting of the ASIS, Medford, NJ, Vol. 27 (1990), pp. 245–255.

<sup>40</sup> Capurro, R. (1996) Information Technologies and Technologies of the Self. *Journal of Information Ethics*, Fall 1996, pp. 19–28. <http://www.capurro.de/self.htm>; Capurro, R. (1995) *Leben im Informationszeitalter*. Berlin. Akademie Verlag <http://www.capurro.de/leben.html>

<sup>41</sup> Krämer, H. (1992) *Integrative Ethik*. Frankfurt am Main. Suhrkamp.

mutual development and help within and between communities world wide. Due to its interactive and decentralized nature the Internet can provide the framework for a new kind of world society different from the one created by the mass media in the 20th century.

### CONCLUSION

Who are we as an information society at the beginning of the new century? I would like to come back to the tension I mentioned at the beginning between the vertical and the horizontal structures of proclaiming, distributing and interpreting messages. We are in a stage of transition between, as Flusser would say, a pyramidal structure of message distribution through “discursive media” into a more horizontal structure of message production through “dialogical media”. The modern separation between mass media and individual media, and also the conception of the individual as an atomic entity or as a mass, is being replaced by the conception of the networked selves and societies where dynamic horizontal processes of information production and distribution do not replace, but at least displace, some of the hierarchies of 20th century information society.

Of course questions of power and truth remain open and new monopolies and divisions emerge that may lead to degeneration and chaos due to the extreme complexity of a networked world where media diversity cannot be governed by a single central power. Rather, media diversity has to be shaped with caution on various levels. This makes future societies and world society as a whole more vulnerable but also more free, i.e. more able to define by themselves what degree or what kind of freedom they can guarantee within the framework of their history, traditions, hopes and fears. This should not be seen as being in contradiction with some other basic norms that all nations following the UDHR may agree upon. The right to freely produce and distribute information—and this is the moral and ethical challenge—must be made to conform with other human rights, such as the right to privacy or the right to self determination. Codes of morals should not be seen as a rigid demarcation of “oughts” but within the perspective of different forms of living and subject therefore to ethical criticism. Ethical questions cannot be solved *a priori*, but have to be patiently discussed at an international and intercultural level. The activities of the International Center for Information Ethics (ICIE) may provide a framework for information and communication in this field, particularly for the academic community.

The coming information society will be characterized by an incredible diversity of message production and distribution. We need, I think, a new science of messages, an *angeletics* as we may call it, that could study at different levels (psychological, sociological, economic, esthetic, religious, etc.) the power structures, technologies, histories, and ways of life of information societies, describing their information moralities as well as the ethical discourses that founded the practices of message production, distribution and use.<sup>42</sup>

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<sup>42</sup> Capurro, R. (2000): What is angeletics? <http://www.hypertexto.com.br>; Capurro, R. (2000) Hermeneutik im Vorblick. Einführung in die Angeletik: <http://www.capurro.de/hermwww.html>; Capurro, R. (1999) Ich bin ein Weltbürger aus Sinope. Vernetzung als Lebenskunst, *op.cit.* <http://www.capurro.de/fiff.htm>; (1996) *op.cit.* <http://www.capurro.de/cottinf.htm>; Capurro, R. (2000) Stable Knowledge? <http://www.capurro.de/cottbus.htm>; Capurro, R. (1995) *op.cit.* Chapters 6 and 7; Capurro, R. (1978) *op. cit.* p. 46 ff.