

Articles

INFORMATION TECHNOLOGY AS AN ETHICAL CHALLENGE

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Information technology has an ambiguous impact on society. This situation calls for a two-level ethical analysis. On the one hand the issues of power and control must be reconsidered under the viewpoint of institutional structures, i.e., of living norms. On the other hand, the technological shaping of society, taking the character of power, oppression, verbosity and dogmatic belief, should be at the same time reconsidered under the viewpoint of a plurality of living forms, i.e., within a framework of deliberation and dissent. This paper presents briefly both issues, taking into account Michel Foucault's concept of "technologies of the self."

1. Introduction

Information technology is dramatically changing the foundations of democratic societies. Political questions are open to public discussion not only in a representative form in parliament but also in all kinds of mass media. The crisis of modern democracies can be understood as a change from the relationship between politicians and their public in parliament to their exposure to mass media as Walter Benjamin (1936) clearly saw in 1936. This implies, according to Benjamin, new selection criteria, similar to the change from theatre to film, and from Greek sport to sport based on quantitative tests. But, more radically, information technology is a dominant way of shaping our cultural identity and/or imposing this identity on others.

This situation calls for a two-level ethical analysis of the role of information technology in modern societies, according to the distinction made by Michel Foucault (1984) between a code-oriented and a self-oriented morality. Foucault calls the methods and techniques through which we constitute ourselves "care of the self" or "technologies" (or "practices") of the self. This is a key point in ethical thinking since Antiquity, where philosophy itself was conceived as a practice of self-regulation through a continuous project of self-representation. Such a project means becoming concerned with relationships of truth, power, and desire. The practice of liberty or the "care of the self" should prevent oppression and strive for authenticity, i.e. for solidarity and plurality in our lives as individuals and communities.

My aim in this paper is to analyze some aspects of the intersection between information technology and technologies of the self. My guiding question is how can we ensure that the benefits of information technology are not only distributed equitably, as Ronald Doctor (1991) rightly stresses, but that they can also be used by people to shape their own lives? In a first step, I will briefly point to some characteristics of a society shaped by information technology as analyzed by some leading thinkers. These analyses show that information technology shares the ambiguities of all technological products. In a second step, I will show the mutual dependency between moral rules and technologies of the self with regard to the social impact of information technology.

2. The Ambiguous Impact of Information Technology on Society

Before we take a look at some aspects concerning the ambiguity of a society shaped by information technology, it is useful to recall the roots of this question.

Whereas in ancient Greece, freedom of spoken language ("parrhesia") was the fundamental ground for democracy within the "polis," the Enlightenment introduced the primacy of the freedom of the written word as a new basis for modern democracies. In contrast to the ancient "polis," modern democracies should be based on principles potentially known and accepted by all human

beings, whether they belong to a specific state (or to a specific group) or not. This condition can only be fulfilled if freedom of thinking, which is indeed the basis of all other democratic principles, does not remain restricted in time and space to oral communication. The "public use" of reason depends, as Kant (1968) remarks, on the freedom of the written word as the potentially universal medium through which reason can be critically shared by everybody, at least insofar as everybody is actually able to read as well as has access to what is written (Capurro 1986). Modern democracies are not only based on freedom of speech but on its insoluble connection with freedom of the press. But one reason why we, in democracies, are interested in developing information technologies is that the question of access to what is being said and/or written is not a triviality any more, as the Enlightenment naively supposed it was. In an information society, the question of freedom of access has become crucial.

By information technology I mean primarily all media through which we are able to communicate artificially with each other. It is for my purpose not essential to establish a typology between "hot" and "cold" media (McLuhan 1964) or between mass media and individual media, because of the wide range of hybrid forms as well as the pervasive character of information technology in all aspects of social life. What does this synthesis of democracy and information technology, which we call information society, look like?

In his book *La condition postmoderne* the French philosopher Jean-François Lyotard (1979) describes the effects of information technology on knowledge and its control. Information technology, being applied to the storage and manipulation of knowledge, not only distorts the hierarchical conception of knowledge but it also potentially weakens its monopolistic control by a social group (e.g., political party or university). In other words, coupling knowledge and information technology implies the possibility of plurality and dissent within a society as well as between different societies. In order to actually achieve this pluralistic situation, Lyotard asks for a general right of access to databases. As a contrasting view, I mention only Jürgen Habermas (1988). Mass media, according to Habermas, are supposed to be an instrument not of dissent but of consent. Information technology has an emancipatory potential insofar as it brings about a more transparent, *i.e.*, a more rational society. But, according to one of the leading post-modern thinkers, Gianni Vattimo, mass media do not produce a more transparent but a more chaotic society. For Vattimo, this "chaos" is not identical with irrationality but a condition of plurality. Whereas Habermas looks for consensus between different contexts enabling the emergence of universal rationality, Vattimo underlines local rationalities, as the idea of universal rationality, conceived as one common world interpretation, has been rejected by the diversity of a world which has now, as Nietzsche said, become a fable. There is no place for utopian view, but only for different places, *i.e.*, for "heterotopian" possibilities [Vattimo 1989 and 1985]. According to Vattimo, who extends Benjamin's views on the technical reproduction of works of art and Heidegger's questioning of Western metaphysics, we seem to be reaching as a society a new aesthetic experience, whose characteristics are eclecticism, non-essentiality and ephemerality. Finally, thinkers like Jean Baudrillard (1987) and Neil Postman (1991) regard the proliferation of information as a threat to responsible moral thinking as well as to culture in general. These views are similar to the diagnosis by Webster and Robins (1986) to which Ronald Doctor refers (1991). The impact of information technology on society seems to offer no other choice than total control or total vulnerability (Rossnagel 1989).

These contradictory approaches show clearly the ambiguity of this impact. Information technology opens dimensions of oppression and liberation, of destruction and aesthetic design, of ideology and plurality, of consent and dissent. In other words, it is non-neutral (Froehlich 1990). This means that we cannot consider technology merely as an instrument having no fundamental roots in our individual and social lives, *i.e.*, in our history and our cultural practices. Instead of separating analytically technology from the life-world in which it is already embedded, we should try to look at it "synthetically", *i.e.*, trying to grasp the mutual dependencies between man, nature, and technology, and avoiding the fallacies of humanism, naturalism and technicism. In the age of information technology there is a challenge for, as I call it, "synthetic thinking" to participate in the artificial marketplace (Capurro 1993). Being concerned with what we think and do within and through information technology means looking for the intersection between it and technologies of the self. It means regarding information technology as an ethical challenge.

3. Information Technology as an Ethical Challenge

How can we ensure that the benefits of information technology are not only distributed equitably, but that they can also be used by the people to shape their own lives? The first part of the question refers to legal and institutional aspects. The second part goes further, and asks not only for living norms but also for living forms. All three aspects include questions of truth, power and desire, that is, they include individual and social options concerning these questions (Capurro 1992a). Under these premises we can ask how we can ensure that institutional, normative and "life-forming" options remain open. My answer is that a legal control of information technology is not enough, but that these normative aspects should rest not only on a "code-oriented" but also on a "self-oriented" morality.

Foucault's distinction between code-oriented and self-oriented morality does not imply a contradiction between moral rules on the one hand and individual freedom on the other. It stresses, on the contrary, their complementarity. In order to become moral subjects, it is not enough to have a code of ethics and to act according to it. There is another aspect concerning the different options through which we can put rules into practice within the context of our personal lives and within the cultural and historical context of different kinds of communities. In this case we are not simply agents but we become, as individuals and as communities, moral subjects of our actions. We are not an unchangeable "I" or "we," but an intersection of possible choices in a process of becoming, individually and socially, ourselves within a field of linguistic and institutional practices [Dreyfus and Rabinow 1983]. The "self" is not the abstract subject invented by epistemological theories but a dynamic intersection of traditions and life projects through which individual and social identity is permanently created and questioned. But the ethical quest for authenticity is not only a process through which we become different by mutually recognizing our differences. It means, more radically, to be faced by the other, "face to face," as Emmanuel Lévinas (1961) says, particularly by the have-nots. The quest for our "selves" is ethically preceded by the questioning through the other, and the care of the self would be completely misunderstood if it were not interpreted as the intersection where we take care of our mutual relationships in the face of anonymous rules, practices, and institutions.

On this basis we can ask once again: How can we ensure that the benefits of information technologies are not only distributed equitably, but that they can also be used by people to shape their own lives? At the institutional level, this may be done not only through "National and Regional Institutes for Information Democracy" as Ronald Doctor (1991) suggests, but also through global activities such as an International Institute for Information Democracy. Institutions and codes of morality are indeed a necessary condition for the construction of social reality (Dahlbom 1991). But both should be related to our possibilities of questioning them. Otherwise they may become an instrument of oppression. In other words, it is through institutions as well as through moral and legal codes that we can ensure the right to access and to work for more equitable distribution in order to bridge the information gap between the "information poor" and the "information rich." But this can degenerate into a purely bureaucratic process if we do not insert our institutional and code-oriented activities in the framework of technologies of the self. This is not a plea for anarchy as it does not negate the role and necessity of norms and institutions, but it is a plea for ethical care of the uniqueness of our individual and social being.

Elsewhere I have suggested (Capurro, 1990) that we need something like information ecology in order to cope with the disastrous impact of information technology on individuals and society such as:

- the increasing gap between the "information rich" and the "information poor"
- the technological colonialization of the life-world
- the cultural alienation of groups inside societies as well as of societies (and groups of societies) as a whole
- the oligarchic control of information resources.

It would be a misunderstanding to interpret the ecology metaphor as intent to apply categories of nature to the social field. We dwell ("oikos" = house) originally (but not identically) in language as well as in nature. The impact of information technology on our "logos" is at least as far-reaching as the impact of our technological "logos" on nature.

The computer scientist Christiane Floyd (1992a) has suggested that in order to assume ethical responsibility, scientists and engineers have to overcome

silence, *i.e.*, they have to speak in public about values. She contrasts an "authority-mode" with an "authenticity-mode" of dealing with values. Whereas the former is based on hierarchy, authority, law, universality, command, obedience, and control, the latter encompasses networks, choices, situatedness, invitation, commitment, and mutual support. Floyd develops what she calls a "healing vision" based on the following concepts: individuality, which presupposes self-limitation; variety, which presupposes respect; relatedness, which aims at reconciliation; and balance, which she associates with the healing attitude of care. This paradigm shift from the authority- to the authenticity-mode is very similar to Foucault's distinction between code-oriented and self-oriented morality. I think it would be wrong to interpret this distinction as a disjunction. Ethics understood as the art of living is not an alternative to universalistic code-oriented morality. It takes up the classical question of goals of practice again and embraces moral questions within different life projects. It is not a prescriptive but a deliberative ethics (Krämer 1992). It is a challenge to information society to be able to see information as belonging to the heart of an ethics, as an essential part of the deliberative process of human practical reason and of the creative process of human imagination. I believe that it is therefore possible and sensible to develop an information science as a rhetorical discipline, with ethical, aesthetic and political aspects as basic parameters (Capurro 1992).

If we conceive information society as a deliberative and an imaginative one where the practice of advising and consulting plays a key role, as should indeed be the case in democracies, information networks could become the artificial marketplace for different kinds of deliberation, dissent and advice, according to the insight that "in designing tools we are designing ways of being" (Winograd and Flores 1986 p. xi). We have to learn not just to store, retrieve, and manage information but to become aware that what we primary do is to handle with biased knowledge, *i.e.*, that our basic ability in an information society should be a hermeneutical one, which includes such critical arts as interpretation, aesthetic or creative design, and responsibility towards our lives. In other words, we need information technology and technologies of the self: the art of friendship, the art choosing, the art of silence and the art of laughter. Let us try to think about these technologies of the self and about information technology.

The Art of Friendship in the Face of Power.

In a "healing vision," information technology should be questioned insofar as structures of power and oppression do not allow its transformation by people who try to help themselves and to help each other in shaping their lives. This transformation means a radical change of perspective: information technology is not just the subject that transforms us and our world, but at the same time, we have to incorporate it within different projects for saving and promoting the variety of life on this planet (Capurro 1991). We have been developing modern technology under the banner of mastery. Nature is giving us a last chance to do it under the banner of friendship. Hans Jonas (1984) has shown that we cannot limit friendship to our present world but have to extend it to the generations to come.

The Art of Choosing in the Face of Oppression.

Information technology gives us means for reality construction, but it would be fatal if we did not make our choices dialogically, that is, through awareness of and respect of people and other living beings. As Christiane Floyd (1992b) writes, "An important aspect of computer science is that it deals with *creating reality*: the technical reality of the programs executed on the computer, and the conditions for the human reality which unfolds around the computer in use. Therefore, the conceptual categories 'true' and 'false' it relies on are not sufficient in themselves. We have to go beyond them by finding categories for expressing *the felicity of our choices*, for distinguishing 'more or less desirable' as we proceed in making distinctions and decisions in communal design processes. This is essential for dealing with quality in software development and use" (p. 20).

The Art of Silence in the Face of Verbosity.

Information technology is a loquacious technology. We have to learn the art of silence in order to hear what others say and have to say and to be able to overcome the art of taboo-silence issuing from the old paradigm of value-free science and technology. We need a universal ethical "logos" for coexistence in a common world. But this "logos" may remain monologic when it takes the

technological shape of mass media. We have to learn to hear the differences between the "logo" and to respect them. And we have to learn to hear our silent dimensions, namely finitude and suffering. To learn the art of silence means, on the one hand, to learn to confront ourselves with nothingness, i.e., with this nothingness we call our existence (Goguen 1992), and, on the other hand, to feel responsible for the suffering of others, particularly when they are just a picture on the TV-screen.

The Art of Laughter in the Face of Fear.

Technology possesses some of the characteristics of religious belief. In his famous novel *The Name of the Rose*, Umberto Eco has shown that the art of laughter is a dangerous art for all dogmatic beliefs. Just as there are many senses of silence, there are also many kinds of laughter. I am referring now to a kind of laughter as an expression of insight into the basic weakness of all our technological projects. In Antiquity, laughter was considered a sign of madness as well as wisdom. The art of laughter means our ability to question our personal and social identity. It is a sign of our personal or social openness for what we are not, or for what we do not understand, for the Other. This gives us an opportunity to question our values from a not just "political" but also "poli-ethical" perspective (Capurro 1992a). An "ethics of care", as Thomas Froehlich (1991, p. 299) remarks, cannot be blind to the individuality and contextuality of problems and needs, by using Rawls' technique of a "veil of ignorance". To care is, of course, not the same thing as to be fair (Rawls 1971). We should make sure that the practices of information become part of the practices of deliberation, advising, and dissenting; they should become part of our self-questioning so that they do not give rise to a new form of power, which strengthens the discourse of the panopticon into a super-panopticon (Poster 1990).

4. Conclusion

I have tried to show that the impact of information technology on society can be transformed through the ethical perspective of technologies of the self. The "self" is not the "ego" but the intersection of natural and artificial dimensions through which we shape our identities, I mean, our differences. I call our being aware of the relationships between man, world and technology, i.e., being aware of the fallacies of humanism, naturalism and technicism, synthetic thinking. The "care of the self" is synthetic thinking in the sense that we positively acknowledge our mutual dependencies: dependency of man on nature and technology, of technology on nature and man, and of nature on man and technology. How can we ensure that the benefits of information technology are not only distributed equitably, but that they can also be used by people to shape their own lives? I think that the technologies of the self are an essential part of the answer to this question.

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colleagues but developed soon into an international and intercultural platform with by now more than 220 members from all over the world. In 2001 a cooperation agreement was set up with the Center for Art and Media Karlsruhe (Germany) which provided a new design of the web site as well as management support. Since 2002 ICIE is taken care also by Thomas Hausmanninger (University of Augsburg, Germany). Karsten Weber (Viadrina University, Germany) and Michael Nagenborg (Karlsruhe, Germany) joined us in 2005. Furthermore ICIE organises symposia since 2001/2002 and publishes a book series in cooperation with W. Fink Verlag, Munich-Paderborn (Germany). Since 2004 ICIE publishes the International Review of Information Ethics (IRIE).

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