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Co-operative Cyberethics for a Sustainable Information Society
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Abstract

Social self-organization means that there is a mutual productive interconnection of practices of human actors and social structures. Structures both enable and constrain social actions. This idea corresponds to saying that social systems are re-creative, i.e. self-organizing social systems. Re-creativity is based on the creative activities of human beings. Social structures exist in and through the productive practices and relationships of human actors.

Ethics forms a subsystem of society that is connected to other subsystems such as economy, technology, polity, religion, culture, ecology, science, medicine, etc. Hence if a human being acts in the ethical system of society, (s)he also acts in another societal system. This results in a differentiation of the ethical system and of subsystems such as economical ethics, technological ethics, political ethics, religious ethics, cultural ethics, ecological ethics, sccientific ethics, medical ethics, etc.

There are two types of self-organization: 1. A synchronous one where a system reproduces itself by permanently reproducing and maintaining its elements and hence its unity (autopoiesis). 2. A diachronic one where a system enters a phase of instability, chaos, and bifurcation in which new orders and new qualities emerge from disorder (order from noise).

These two types of self-organization can be applied to the ethical system of society. 1. Existing norms and values enable and constrain human practices, they form a framework for human action and individual norms and values. Based on individual norms and values humans enter social communicative processes where they communicate about norms and values and their legitimatization. This can be done in either a rather conflicting or a rather harmonious way. As a result of ethical communication on the structural level of a social system normative and value-based structures are permanently reproduced. 2. In modern society different values and norms are often conflicting and contradicting each other. This results in social conflicts about the unity and difference of values. In each social system there are prevailing norms and values and alternative ones that challenge this dominance. Social systems can enter phases of crisis and instability that can be caused by different social phenomena where new qualities of norms and values such as a new dominant ethical paradigm emerges.

The different philosophical approaches on ethics can be classified into four categories that form a typology. This typology is based on the distinction between subjects and objects in society. 1. There are subjective, individual ethics that conceive norms and values as individually constructed. 2. There are objective ethics that conceive norms and values on an objective level. Objective here can be understood in two forms: Either as an absolute or as an intersubjective dimension of ethics. Hence there are two subtypes of objective ethics:

Absolute ethics that conceive norms and values in transcendental terms. Intersubjective ethics that see norms and values as the result of discourse and communicative action. 3. Dualistic approaches argue that there is a subjective and an objective level of ethics and that these two domains are separated. 4. Dialectical approaches maintain that there is an objective and a subjective level of ethics and that these two areas produce each other and are interconnected.

The evolution of modern society has resulted in a shift from industrial society towards the knowledge society. This transformation is a multidimensional shift that affects all aspects of society. Hence also the ethical system of society is penetrated by the emergence of the knowledge society and ethical guidelines for the Information Age are about to emerge. Ethical issues and conflicts in the knowledge society are connected to topics of ecological and social sustainability. For InformEthics and CyberEthics the sustainable design of social and socio-technological systems is important.

1.   Introduction

Moral action is action that distinguishes good and evil behaviour and communicates judgements and rules that derive from these judgements. Ethics is a science whose object of study are morals and the conditions of moral action. Ethics doesn't supply detailed principles of good behaviour, it doesn't make moral judgements, but tries to make sense of the notion of morality and to provide general principles that can help human beings in concrete situation to decide how to act and how not to act. Good and evil, freedom, and happiness are important categories of ethics.

The different ethical approaches can be classified into four categories that form a typology. This typology is based on the distinction between subjects and objects in society. 1. There are subjective, individual ethics that conceive norms and values as individually constructed. 2. There are objective ethics that conceive norms and values on an objective level. Objective here can be understood in two forms: Either as an intersubjective or as an absolute dimension of ethics. Hence there are two subtypes of objective ethics: Intersubjective ethics see norms and values as the result of discourse and communicative action. Absolute ethics conceive norms and values in transcendental terms. 3. Dualistic approaches argue that there is a subjective and an objective level of ethics and that these two domains are independent of each other. 4. Dialectical approaches maintain that there is an objective and a subjective level of ethics and that these two areas produce each other and are interconnected.

Approach	Subject	Objects
Subjective Ethics	Morals as strictly individual human phenomena.	
Objective Ethics		Intersubjective: Morals as resulting from intersubjective communication processes. Absolute: Morals as being based on transcendental/highest criteria, principles, goods.
Dualistic Ethics	Morals as existing on an individual and supraindividual level that are strictly separated.	Morals as existing on an individual and supraindividual level that are strictly separated.
Dialectical Ethics	Morals are individual and social phenomena that are interconnected produce each other mutually.	

We now discuss examples for subjective, objective, and dialectical ethics. We see dialectical approaches superior to strictly subjective and objective ones because they synthesize both levels. Hence our own ethical approach is a dialectical one.

2. Subjective Ethics

Classical forms of subjective ethics can be found in hedonist approaches that argue that maximum satisfaction of individual desires and lust constitute the highest moral principle. For Epikur such desires are primarily mental and spiritual ones. The Individualist Anarchism of Max Stirner is based on a hedonist ethic that sees egoism and individual pleasure as the highest goods.

Constructivism stands in the tradition of individualism. Constructivist theories argue that human knowledge is a construction and that reality is what a human being observes. Humberto Maturana (1988) says that all phenomena "are cognitive phenomena that arise in observing" (62). Objective approaches would assume that the observer has a privileged access to an objective reality that exists independently of the observer. Maturana calls this position objectivity-without-parenthesis. In the constructivist position (objectivity-in-parenthesis) there would be no ultimate explanation for anything, statements would be true relative to specifically constructed domains of reality and never false. Ethics would be grounded by emotions not by reason, because ethical questions would arise when love, mutual acceptance, and empathy as subjective constructions of others break down. Maturana's approach is close to non-cognitive ethics (e,g, David Hume) and emotive ethical theories (Alfred Ayer, Charles Stevenson) which argue that morals are subjective sentiments and feelings that can't be scientifically analyzed. "Slavery does not constitute an ethical problem in a society in which master and slave sincerely accept slavery as a manner of living in mutual acceptance, or as a legitimate manner of entering into a work agreement" (Maturana 1988: 56). The problem with such a radical subjectivist ethical approach is that problems of domination and exploitation such as slavery and racism are only considered as problems for someone who disagrees. But

frequently there is hegemony and dominated groups consent on their domination. If there is not an objective criterion for judging that in such cases slavery or racism nonetheless is unmoral and a problem, one will end in a relativistic approach that might legitimate domination, totalitarianism, and exploitation if it is accepted by the masses. That Hitler and his companions decided to exterminate the Jews was absolutely false in an ethical sense, it was not relatively true seen from a specific point of view and specific domains of reality.

Ernst von Glaserfeld's radical constructivist concept of objectivity as "concepts, relations and operations that I have found to be viable in the management of my own experience, turn out to be viable also when I attribute them to the models of Others which I construct to manage my interactions with them" (12) that he suggest as a foundation for a constructive ethics is another subjectivist approach because here Others are strictly subjectively constructed. In comparison to Maturana and Glasersfeld Heinz von Foerster's constructivist approach is less radical, he acknowledges that reality is social and co-constructed by human beings. Because of a human being's existence through other human beings, humans would have responsibility for the world they construct. Mutual dependency, "two-getherness", seeing oneself through the eyes of the other would be important aspects of ethics (Foerster 1991) and would imply participation. But von Foerster's doesn't conclude that this implies that co-operation is an objective ethical guideline for action, he rather (like Maturana and Glasersfeld) stops at a strictly subjective ethical imperative: "Act always so as to increase the number of choices" (von Foerster 1973: 381).

Evolutionary Ethics stems from Konrad Lorenz's tradition of Comparative Ethology, its representatives are besides Lorenz e.g. Hans Mohr, Rupert Riedl, Gerhard Vollmer, and Franz Wuketits. They argue that morals are the result of biological evolution and of organic evolution. Hence ethics is reduced to the biological constitution of human subjects. Just like Constructivism Evolutionary Ethics doesn't contribute to the questions how guidelines and rules of human action are constituted and can be grounded.

The distinction between subjective and objective ethics reflects the classical philosophical difference between Empirism and Rationalism. Subjective ethics stress that morals stem from feelings and sensations, objective ethics that they are an expression of reason.

3.   Objective Ethics

Objective ethics has two distinctive forms: In discourse ethics objectivity is understood as intersubjectivity and social communication processes, in transcendental ethics there is a highest, absolute principle or good of morality.

For representatives of discourse ethics like Karl-Otto Apel, Jürgen Habermas, Paul Lorenzen, and Oswald Schwemmer an objective level of ethics is given by human actors entering intersubjective communication processes in which they try to achieve consensus on ethical questions. It is philosophically related to Greek dialectics in the tradition of Plato where reaching understanding is considered as a process where arguments and counter-arguments on a certain topic are rationally discussed and synthesized.

Habermas (1983) argues that communicative action is a rational principle that constitutes objectivity by trying to achieve a consensus on the validity claims of propositional truth, truthfulness, normative rightness, and understanding. Validity claims of communication

would be the foundation for agreeing on norms and values. Ethics would require the universal participation of affected human beings in discursive processes. "Der Diskursethik zufolge darf eine Norm nur dann Geltung beanspruchen, wenn alle von ihr möglicherweise Betroffenen als Teilnehmer eines praktischen Diskurses Einverständnis darüber erzielen (bzw. Erzielen würden), dass diese Norm gilt" (Habermas 1983: 76). Moral arguments in processes of communicative action would provide forms of consensually solving conflicts of action. Habermas considers norms as valid if all affected by them have agreed on them in a practical discourse. For Habermas communicative action is an objective ethical principle in the sense that discourse ethics provides a formal process of agreeing on norms in intersubjective discourse. Against relativist arguments that say that there can be no universal moral principle because all cultures would have different moral concepts, Habermas argues that all humans have the ability to make moral judgements in communicative actions. Universality here means inclusion of all who are affected by certain moral questions. The most important aspect of Habermas' approach is that he stresses the role of communication for achieving discourse, validity, and consensus on moral questions. Only by communication can people understand the values of others and themselves and the reasons why certain people hold certain opinions, moral communication is the foundation for solving value conflicts. What is missing in discourse ethics is a non-formal ethical principle on the content level because one can imagine processes where the masses participate in the constitution of general norms but nonetheless establish norms and values that are coercive.

Transcendental ethics identify a highest principle or good of moral conduct such as freedom (Kant), God and religion (Hegel, Scheler), happiness and pleasure (Utilitarianism), justice (Rawls), co-operation and freedom from necessity (Marx).

Transcendental ethics are based on absolute rules such as the Golden Ethical Rule which is an objective ethical principle that says: Treat others like you want to be treated by them. It is not a moral, but an aspect of morality, a criterion for formulating morals and taking moral decisions. The Golden Rule was already formulated in the Old Testament of the Bible, its most famous formulation is Immanuel Kant's Categorical Imperative: "Act only according to that maxim by which you can at the same time will that it should become a universal law. (...) Act as though the maxim of your action were by your will to become a universal law of nature. (...) Act so that you treat humanity, whether in your own person or in that of another, always as an end and never as a means only" (Kant 1998: 422. 429). The Golden Rule fails in situations where people are willing to suffer, tolerate violence against themselves, or die if they were in the positions of others. Kant's ethics are transcendental in the sense that it is grounded in the category of freedom as absolute and highest principle and good. For Kant moral freedom means that humans resist their instincts and desires and hence restrict absolute freedom of action by giving themselves rules of conduct that enable true freedom. The Categorical Imperative is considered as an expression of freedom, good will would be oriented on freedom. Another absolute rule is the Rule of Golden Mean by Aristotle which says that happiness can be found by choosing the middle way between extremes.

For Georg Wilhelm Friedrich Hegel ethics is part of political philosophy, he has no separate moral theory (Marcuse 1941: 179). In Hegel's philosophical system morals form a part of Objective Spirit. Free will would express itself as formal, abstract right (property right), as morality that is considered as the right of the subjective will, and as ethics that is conceived as substantial right. Morality would have to do with Goodness and Wickedness, the essential and actual Good would be the "absolute final aim of the world, and duty for the agent who ought to have insight into the good, make it his intention and bring it about by his activity" (Hegel 1830: §507). Wickedness would be "the most intimate reflection of

subjectivity itself" and would stand "in opposition to the objective and universal" (ibid.: §512). Ethics understood as moral life is for Hegel "the perfection of spirit objective" (ibid.: §513). For Hegel Ethics encompasses Family (natural Spirit), Civil Society (the formal universality of relations of individuals), and the Political Constitution (the self-conscious substance of Spirit Objective). "The State is the self-conscious ethical substance, the unification of the family principle with that of civil society" (ibid.: §539). Aspects of the State would be laws, freedom of property that constitutes equality, the constitution, government, monarchy as the "constitution of developed reason" (ibid.: §542) (in comparison to democracy and aristocracy as lower forms of reason), the nation, international law, world history, national spirit, and Christian religion. Hegel's ethics are an expression of the self-development of Spirit, for him ethics are connected to the State, nation, and religion. "Genuine religion and genuine religiosity only issue from the moral life: religion is that life rising to think, i.e. becoming aware of the free universality of its concrete essence. Only from the moral life and by the moral life is the Idea of God seen to be free spirit: outside the ethical spirit therefore it is vain to seek for true religion and religiosity" (Hegel 1830: §552). For Hegel the State is the expression of moral life and ethical sentiment. Religion would be consciousness of absolute truth (ibid.:§552), the truly moral life would be a sequel of religion, faith, and the absolute idea of God. Hegel considers Christian religion as the foundation of moral life and the State. Hence for Hegel the absolute determinant of Ethics is God and Catholicism. Hegel's philosophy is an example for the belief in the transcendental objectivity of God and religion.

Max Scheler (1916) in his idealist theory of knowledge and values argues that values constitute a sphere that exists independent of human beings and continues to exist when human carriers of values die. He has identified four modalities of values that constitute a hierarchy that ranges from values with lower importance to such with highest importance: 1. Sensory values: e.g. the Pleasant, the Painful: 2. Vital values: e.g. the Noble, the Common; 3. Spiritual values: e.g. the Beautiful, the Right, the True; 4. Religious values: e.g. the Sacred, the Profane, love, belief. This hierarchy would be intuitively understandable, people should give priority to actions in certain situations that realize values that have higher importance than values connected to other practices. The problem of this approach (and also of the one of Hegel) is one that is common to all religious thinking and idealist philosophies: Absolute values and rules are postulated that are not grounded in rational human arguments, but legitimated by referring to an absolute authority such as God or Spirit. Hence the whole approach becomes an ideology.

For Utilitarian Ethics the highest moral principle is the maximization of happiness and pleasure for as much people as possible. That which is useful is considered as morally good, it is argued that the total positive and negative utilities of all alternative actions should be calculated in order to decide which action to choose. John Stuart Mill and Jeremy Bentham are classical representatives of Utilitarianism. John Rawls' criticism of Utilitarianism is that it legitimates disadvantages for certain individuals if the majority profits from these disadvantages. Each individual would have the same individual right for maximum freedom. For Rawls (1971) the highest moral principle is justice: There would have to be the highest amount and degree of possible basic liberties (right to vote, freedom of speech, freedom of assembly, freedom of conscience, freedom of thought, freedom of the person, freedom of ownership, freedom from arbitrary arrest and seizure) for all individuals and the same opportunities for all individuals for achieving economic, political, and social positions and resources. Unequal distribution would be justified if it were guaranteed that all have equal opportunities for attaining resources. The Maximin principle says that society should be

designed in such a way that the opportunities and endowments of the least advantaged individuals should be maximized. Communitarian and collectivist thinkers have criticized that Rawls' approach is individualistic and neglects social and collective aspects of freedom. Rawls' ethics would be designed for legitimating a society based on the principle of private ownership.

Marx and Engels considered morals as ideologies that try to legitimate religious, economic, and political domination and oppression and serve class interests by postulating the authority of an absolute subject. Marx considered religion and morals as opium of the people and right (the defence of morals in the form of laws by the state) as a mechanism for protecting private property. Marxists like Antonio Gramsci, Theodor W. Adorno, Max Horkheimer, and Louis Althusser have further elaborated this aspect of Marxism as critique of ideology. Marx and Engels argue that morals are an expression of coercive societies and that morality will vanish with the disappearance of class antagonisms because there will be no fundamental conflicts of interests that have to be legitimated ideologically. Moral theories would be a consequence of the economic conditions of society and morality class morality. They argue that their approach is not a moralistic, but a scientific one because they would identify tendencies of the development of the productive forces that produce the potential for Communism as a higher form of existence. The alternative to preaching morality here seems to be the identification of deterministic laws of history. Steven Lukes (1985) has pointed out that the writings of Marx and Engels on moral questions are paradox because besides the stress on historical laws instead of morals one can find a lot of moral expressions that condemn capitalism as oppressive, exploitative, alienating, estranging, heteronomous, and present the vision of a better world ("the realm of freedom") that is characterized by well-rounded individuality, pluralistic activities, abundance, the abolition of hard work and wage labour due to technological productivity, the disappearance of the performance principle and exchange, the free production and distribution of goods ("from each according to his ability, to each according to his needs"), and free time for idle and higher activity. The concept of freedom that Marx and Engels put forward questions freedom as the freedom of private property in means of production and understands it as freedom from scarcity and domination and as a community of associated individuals that provides wealth, self-ownership, self-realization of human faculties, and self-determination for all. They considered the bourgeois concept of freedom as narrow and as reducing freedom to free trade, free market, free buying, free wage labour, i.e. to the sphere of money that radically constrains the practical alternatives of action. Bourgeois freedom would make the producers free from their product and would hence in fact be a form of unfreedom. In this context the notion of alienation arises and signifies compulsory wage labour, dispossession, and the crippling of human faculties.

Especially Lenin, Trotsky, and Stalin took up Marx's and Engels' concept of morality as class morality and of social development as lawful, pre-determined process. Determinist readings of Marx argue that a better society doesn't come about because it is ethically justified, but because it is causally produced. Paradoxically this ended up in a new morality that became an ideology that legitimated an oppressive regime (Marcuse 1958, Fuchs 2005a: 140-150). Stalinism recoded bourgeois values like family, performance, hard work in order to arrive at an alternative morality that argued that under a Socialist rules old values serve higher principles. The result was a moral that resembled the Protestant Ethics of capitalism, but was characterized as Socialist Ethics. Soviet Ethics were based on the idea that privations and dictatorship were needed in order to establish a free society and to develop the productive forces. The idea of communism became an ideology and a transcendental absolute idea that legitimated a coercive system that was not all too different from capitalist principles of

domination. The idea that history is a lawful process and that hence Socialism follows capitalism became an ideology that allowed Stalin to persecute all critics because he argued that the Soviet system in any form is a Socialist society because it is a social formation following capitalism and that any criticism of the system is counter-revolutionary and means critique of Socialism and to suggest a return to capitalism.

The alternative to a determinist interpretation of Marx and Engels is to acknowledge a certain importance of morality in Marxism and to understand it as a philosophy of praxis that aims at the sublation of domination and exploitation in the practice of human emancipation and self-organization. For Hegel the Essence of things means that they have fundamental characteristics and qualities as such that frequently are different from their Appearance. Truth for Hegel is the correspondence of Essence and Existence of things, only true Existence would be real and reasonable. In Marxism especially Herbert Marcuse has taken up Hegel's notion of Essence and has stressed that Essence is connected to possibilities and that a true society is one that realizes the possibilities that are enabled by its structural aspects such as technological forces, economic productivity, political power relations, world-views, etc. (Marcuse 1937, 1964; Fuchs 2005b: 20-37). Essence in society is connected to what humans could be (Marcuse 1937), Ernst Bloch (1959) in this context uses the category of "not-yet" to signify real (not abstract) potentials that could be realized, but have not yet been realized. "Was der Mensch in einer gegebenen Situation sein kann, läßt sich umschreiben unter Berücksichtigung folgender Faktoren: das Maß der Verfügung über die natürlichen und gesellschaftlichen Produktivkräfte, der Stand der Organisation der Arbeit, die Entwicklung der Bedürfnisse im Verhältnis zu ihrer Erfüllbarkeit (vor allem das Verhältnis des zur Reproduktion Lebens Notwendigen zu den 'freien' Bedürfnissen nach Genuß und Freude, nach dem 'Schönen' und 'Guten'), der Reichtum an kulturellen Werten auf allen Lebensgebieten, der als anzueignendes Material vorliegt" (Marcuse 1937: 71). For Marcuse ethics are connected with questions of that which can and should be because it can reduce pain, misery, and injustice (Marcuse 1964: 106) and use existing resources and capacities in ways that satisfy human needs in the best possible way and minimize hard labour (ibid.: 112). A false condition of society or a social system would mean that its Actuality and its Potentiality differ. Marcuse stresses by especially referring to early works of Marx such as the "Economic and Philosophical Manuscripts" and the "German Ideology" that in capitalism oppressed humans are alienated because they are dispossessed and that alienation means that humans and society are estranged from their Essence. The sublation of the alienation of labour and man by establishing a realm of freedom would mean the realization of the human and social Essence. One can read the works of Marx as a deconstruction of ideology, the identification of potentials that strengthen the realization of human freedom, and the suggestion that humans should act in ways that realize potentials that increase the co-operative character of society. Here both chance and necessity are important: Existing structures, i.e. social relations and forces of production in economy, polity, and culture, determine certain potentials of societal development (necessity), the human being in its social practices realizes potentials by creating actuality (chance). Freedom hence is freedom to create novelty that is conditioned (enabled and constrained) by societal reality. Marx's works can be interpreted as an ethics of liberation and co-operation in so far as they suggest that humans should act in ways that bring society closer to the latter's co-operative Essence. Marx's stress on socialization (Vergesellschaftung) shows that he saw co-operation as an essential societal phenomenon and considered the realm of freedom as the realization of the co-operative Essence of society. This is what Marx means when he e.g. speaks of "the return of man from religion, family, state, etc., to his human, i.e., social, existence" (Marx 1844a:

537), the "complete return of man to himself as a social (i.e., human) being" (ibid.: 536), "the positive transcendence of private property as human self-estrangement, and therefore as the real appropriation of the human essence by and for man" (ibid.: 536). For Marx co-operation is an objective principle that results in a Categorical Imperative that in contrast to Kant stresses the need for an integrative democracy: Marx argues that critique ends with the insight that "man is the highest essence for man - hence, with the categoric imperative to overthrow all relations in which man is a debased, enslaved, abandoned, despicable essence" (Marx 1844b: 385). Critique of domination and ideology is the consequence of this categorical imperative. Such an interpretation of Marx and Engels stresses that morals don't fade if injustice vanishes, but that there is a potential for the emergence of an alternative co-operative ethics/morality, a "really human morality" (Engels 1877/78: 132).

4.   Dialectical Ethics

A dialectical approach in Ethics was first established in Old Greece where dialectics was considered as a discursive method that allows the synthesis of arguments and counter-arguments. Since the 19th century dialectics has been conceived by Idealist and Materialist philosophy as a method that conceives reality as dynamic development process in which things are contradicted by other things so that a new thing emerges that eliminates and incorporates the Old. Applying this method to ethics means that we take the elements from subjective and objective approaches and combine them in such a way that they form a new whole.

The important idea for us in subjective ethics is the cognitive dimension, the important idea in intersubjective ethics that social norms, values, and rules emerge in communication processes, the important idea in transcendental ethics that there are guidelines of morality, the important idea in Marxian ethics that co-operation is a foundation of freedom.

The notion of self-organization allows interrelating subjective and objective phenomena because it focuses on how systems create and reproduce themselves by interaction processes of their elements (Fuchs 2003c, 2006a). Intersubjective interactions result in the production of emerging objective structures that enable and constrain further interactions that again allow the production and reproduction of structures, etc. Self-organizing systems are self-referential, reflexive, and self-producing.

The idea of social self-organization has thus far been mainly associated with the works of Niklas Luhmann and his concept of self-reference. For Luhmann (1993) morals are communications oriented on the binary code good/wicked, it is communication on which actions and views should be respected or disrespected. Luhmann considers morals as self-organizing and self-referential in the sense that moral communication produces follow-up moral communications which result in further moral communications, etc. Luhmann neglects the role of human subjects and their individual value structures, the mediation of subjective and objective aspects of morals, because he excludes human actors from social systems.

For Luhmann (1993) morals don't form a specific subsystem of society, but circulate in all social systems. But morals and morality are phenomena that are clearly different from structures such as natural resources (natural systems), machines (technological systems), property (economic systems), power (political systems), etc. In order to stress the significance of morals we conceive it as a subsystem of society that is open in the sense that it is always structurally coupled to other subsystems of society. Hence one can never participate only in

the moral system of society, one at the same time participates in at least one other subsystem. Hence morals are not abstract, but concrete, the structural coupling of the moral system with other systems results in special morals and ethics such as Bioethics, Environmental Ethics, Technological Ethics, Economic Ethics, Political Ethics, Media Ethics, Ethics of Science, Aesthetic Ethics, Educational Ethics, Medical Ethics, Sports Ethics, Social Ethics. This structural coupling shows that the moral system is a special system in the sense that it is always connected to other subsystems of society (ecosphere, technosphere, economy, polity, economy, culture, cf. Fuchs 2005c). The moral system of society is a subsystem of the cultural subsystem of society (Fuchs 2005d), all cultural systems are oriented on the production of meaning in society, morals signify social phenomena in value-based terms (good, evil, wicked, etc.).

Our concept of the moral system of society is based on a notion of social self-organization as dynamic process in which human actors communicate in such a way that they produce and reproduce social structures that enable and constrain further human actions and communications by which further structures emerge and are reproduced, etc. This is a self-producing, self-referential, and reflexive process that is termed re-creation (Fuchs 2003a, b).

There is a structural level and an actor level of the moral system that are mutually connected. On the actor level we find an individual moral structure that is made up of a set of individual norms, values, and rules of behaviour.

Moral structures are made up of rules, norms, and values. Rules are technique or procedure of action (cf. Giddens 1984: 16-25), norms are regularized rules achieved by routinized, repeated, and repeatable action, values are a weighting and an evaluation of rules and/or norms according to moral judgements in terms of good and wicked. These three components can be found on the individual and on the social level of the moral system. Human action is an expression of the practical realization of individual rules, norms, and values.

Based on individual morals human beings enter social relationships and form social groups by communication processes. We enter the moral system of society when our individual or social practices are oriented on moral issues. When we communicate with other actors about moral questions and judgements, we act on the social level of the moral system. In and through communication processes the moral social structure of society is constituted and reproduced. By moral communication, i.e. communication about moral issues, social rules, norms, and values emerge and are reproduced. Moral communication is characterized by certain degrees of conflict and co-operation. Social rules are techniques and procedures of social action, social norms are institutionalized and possibly sanctioned social rules (Giddens 1984), social values are collective moral judgments on social phenomena in terms of good and wicked. Collective morals don't necessarily require consensus.

Collective morals in a process of downward causation enable and constrain individual rules, norms, and values. This is not a mechanical deterministic process, individuals who are socialized in certain social systems (e.g. children educated by parents, pupils educated by teachers) are confronted with certain dominant values by other actors. How they react is not exactly determined, there is only a certain space of possibilities determined by the overall social structure, the exact individual moral judgements are chosen based on relative freedom of action.
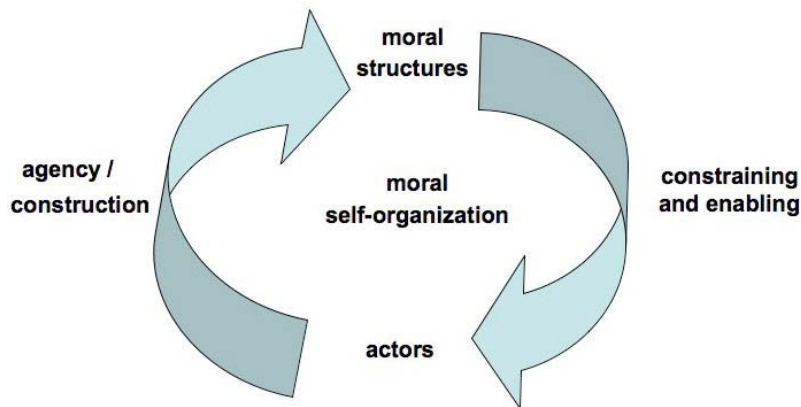
Figure 1: The Self-Organization of the Moral System

The self-organization of the moral system is a process where individuals produce and reproduce social rules, norms, and values (moral structures) in and through communication, this results in social moral structures that enable and constrain individual rules, norms, and values that function as the foundation for further moral communication processes that result in the further emergence and reproduction of social morals, etc. (cf. fig. 1).

Self-organization can on the one hand be understood on a synchronous level as the autopoietic reproduction of structures. Here the work of Maturana and Varela has been important. Ilya Prigogine has on the other hand shown that on a diachronic level self-organization means that new qualities and order emerge in a phase of instability and systemic crisis. He terms this principle order from noise.

Because of the moral system's openness new moral social structures emerge always in situations of crisis and instability of at least one subsystem of society. This means that societal crisis by the way of structural coupling has a feedback effect on the moral system by which dominant morals of the specific system change, i.e. new qualities of the moral system emerge. The changes both affect the specific system in crisis and the moral structure of society in the specific realm in question. But this is not a deterministic process, crisis opens up a space of possibilities for new morals which are realized in concrete social processes. The deterministic element is that morals change in situations of crisis, but it is relatively open how they change.

With the rise of modern society religious morals increasingly have become more and more unimportant due to the role that the economy and polity play in society. Economic freedom in the sense of a right to private property and of civic liberties has become a dominant social value that shapes society. Economic liberty in modern society means that each individual has the right to produce commodities and to sell them on markets. The moral values of modern society are to a certain extent antagonistic and self-contradicting, e.g. the right to private property organized in the form of capital accumulation often contradicts the human right to social security. The rise of economic competition as a dominant structural principle of modern society is due to the fact that modern society is based on capital and markets. Modern society is characterized by conflicts of interest. The state system is a monopolization of the means of coercion that is used for installing a political system that forces the different interest groups to carry out conflicts in an unarmed way. This results in the democratic political system in which parties that are an expression of different antagonistic interests compete for the favour of citizens. This system is based on the distinction between government and opposition, majority rules, and laws. Laws are social norms defined by the government, sanctioned with the help of the state-monopoly of the

means of coercion organized in the form of the executive system that consists of the police system, the military system, and the prison system and the judiciary system. Competition and conflict are the dominant principles of moral communication in modern society. Social norms and values are constituted in conflicting ways that establish power differences (that are renegotiated in election processes) that enable certain groups to pass laws and exclude others from this process. Morals can under certain circumstances become ideologies that legitimate domination by strictly regulating human action by appealing to a highest, absolute, irrational authority such as God, race, nation (Althusser 1971, Balibar/Wallerstein 1994, Gramsci 1971).

The self-organization of the moral system is a threefold process of cognition, communication, and co-operation. The cognitive level is the domain of individual rules, norms, and values, communication and co-operation are processes that form the social level of the moral system. Co-operation is a type of social relationship for achieving social integration that is different from competition. Co-operation is a specific type of communication where actors achieve a shared understanding of social phenomena, make concerted use of resources so that new systemic qualities emerge, engage in mutual learning, all actors benefit, and feel at home and comfortable in the social system that they jointly construct. We argue that co-operation is the highest principle of morality, it is the foundation of an objective dimension of ethics, a co-operative ethics. All human beings strive for happiness, social security, self-determination, self-realization, inclusion in social systems so that they can participate in decision processes, co-designing their social systems. Competition means that certain individuals and groups benefit at the expense of others, i.e. there is an unequal access to structures of social systems. This is the dominant organizational structure of modern society, modern society hence is an excluding society. Co-operation includes people in social systems, it lets them participate in decisions and establishes a more just distribution of and access to resources. Hence co-operation is a way of achieving and realizing basic human needs, competition is a way of achieving and realizing basic human needs only for certain groups and excluding others. We argue that co-operation forms the Essence of human society, and that competition estranges humans from their Essence. One can imagine a society that functions without competition, a society without competition is still a society. One can't imagine a society that functions without a certain degree of co-operation and social activity. A society without co-operation isn't a society, it is a state of permanent warfare, egoism and mutual destruction that sooner or later destroys all human existence. If co-operation is the Essence of society then a truly human society is a co-operative society and competition is a form of evil and human wickedness. Co-operation as the highest principle of morality is grounded in society and social activity itself, it can be rationally explained within society and need not refer to a highest transcendental absolute principle such as God that can't be justified within society. Co-operative ethics is a critique of lines of thought and arguments that want to advance exclusion and heteronomy in society, it is inherently critical, it subjects commonly accepted ideas, conventions, traditions, prejudices, and myths to critical questioning. It questions mainstream opinions and voices alternatives to them in order to avoid one-dimensional thinking and strengthen complex, dialectical, multi-dimensional thinking. The method of critique goes back to Socrates, in the 20th century it has been advanced by approaches such as Critical Theory and Discourse Ethics.

5.   Co-operative Cyberethics

Norbert Wiener, Donn Parker, Joseph Weizenbaum, and Walter Maner were early pioneers of Computer Ethics (Bynum 2001). Maner saw Computer Ethics as referring to ethical problems aggravated, transformed or created by computer technology. James H. Moor (1985) defined Computer Ethics as "the analysis of the nature and social impact of computer technology and the corresponding formulation and justification of policies for the ethical use of such technology" (Moor 1985: 23). For Richard Spinello cyberethics is about metanorms that guide "acting well in this new realm of cyberspace" (Spinello 2003: 2). Computer technologies and knowledge transform society, transformation means that new questions of how social relationships should be regulated arise. New options for development, i.e. opportunities and risks, emerge. The challenge for Cyberethics is to discuss principles of morality that can guide human action so that people are empowered to establish a sustainable, participatory global information society. Cyberethics can discuss real possibilities of development of the information society and criticize ideologies that portray the information society in uncritical and one-dimensional ways.

Luciano Floridi argues that Computer Ethics in the Information Age should take on the form of Information Ethics (Floridi 1999; Floridi/Sanders 2005, 2002, 2001). For him Information Ethics is the philosophical foundation of Computer Ethics. Floridi has a pan-informational concept, he conceives information as a process and as the substance of the world. "From an IE perspective, the ethical discourse now comes to concern information as such, not just all persons, their cultivation, well-being and social interactions, not just animals, plants, their proper natural life, but also anything that exists, from paintings and books to stars and anything that may or will exist, like future generations; and anything that was but is no more, like our ancestors" (Floridi 1999). For Floridi the infosphere - the environment constituted by the totality of information entities - has intrinsic worthiness.

The world is socially constructed by human beings, we can only consider something as valuable that is part of our social universe, the problem of non-humanistic ethics that postulate values that transcend the human being and its constructed and produced world is that putting humans and nature or artificial systems on one level frequently results in a problematic devaluation of human beings (as e.g. in Deep Ecology). Floridi e.g. argues that responsible agents such as human beings, AI robots, angels, and gods have the greatest dignity. To put humans on the same level as robots is problematic, it reduces humans to the level of machines. Moral status requires the abilities of self-consciousness, sensitivity, suffering, rational judgement, and the knowledgeable, reflective, rational choosing of alternatives. Values and morals are inherently human qualities, for humans there are no values external to human and societal being, there is no position from where they could judge if something that exists outside of society has values. Humans can consider things as valuable and life-enhancing, only humans are intrinsically worthy for humans.

Floridi defines an evil action as an action of an agent that damages the welfare of another agent severely or unnecessarily (Floridi/Sanders 2001). We could agree with this definition, if the agents were considered as human individuals or groups, but Floridi argues that besides moral evil (human) and natural evil there is also artificial evil, i.e. evil actions committed by machines or computer applications. For acting in an evil or wicked manner it is necessary to be conscious of the distinction of good and evil. Technologies, animals, or particles are not and never will be conscious of this distinction, they are no moral creatures. Floridi anthropomorphizes technology and nature. E.g. not a computer virus that destroys all data on my hard disk is evil, but the person who programmed the application and distributed

it.

Rafael Capurro (Capurro 2005, 2003a, b) offers an alternative Information Ethics that is grounded in the social realm and explores and evaluates the development of moral values and new power structures in the information field, information myths, contradictions and intentionalities in information theories and practices, and the development of ethical conflicts in the information field. The main task of Network Ethics would be to pose the question of freedom in a digitally networked world.

In Computer Ethics there is a debate on the question if new information- and communication technologies imply new ethics: Expansionists like Carl Mitcham and Walter Maner argue that ICTs transform society to an extent that requires a new ethical framework, traditionalists say that we can apply our ordinary scheme of ethical analysis to issues involving cybertechnology (Tavani 2005, 2001). Our argument is that both arguments are false and true, the information society is a societal formation that is both continuous and discontinuous, it is neither an entirely new society, but one structured around an asymmetrical distribution and accumulation of economic, political, and cultural capital (Fuchs 2003), nor an entirely old society. The way that structures work has been transformed, but not revolutionized by the increasing importance of ICTs, knowledge, communication, and network logic. If society has partly changed, we partly need to adapt our ethics. Given such an analysis one can assume that in the Information Age we are still confronted with fundamental questions of ethics such as how to increase freedom, autonomy, participation, and co-operation in society, but the societal context has to a certain extent changed, hence the realm of possible developments of society has also changed, hence the real options for action that humans have are somehow different, and hence we need to rethink which alternative paths of development are desirable and which ones are not.

Deborah Johnson argues that computer ethics will disappear in the future because computer technology will become an ordinary phenomenon and this will result in the integration of computer ethics into ordinary ethics (Bynum 2001 refers to this assumption as the Johnson hypothesis). Tavani (2001) argues that computer ethics won't disappear because new phenomena like bio-informatics and Artificial Intelligence would create new ethical questions. Also Moor (2001) says that "novel applications of computing will generate new policy vacuums and hence new ethical problems" (Moor 2001: 90). We think that the disappearance of Computer Ethics would only be possible if computer technology wouldn't have any longer novel effects on society. But this is unlikely to happen. E.g. the rise of nanotechnology will probably have huge effects on society that have thus far only been little discussed.

That we term our approach Co-operative Cyberethics stresses that co-operation is a principle that could strengthen the sustainable character of the information society and that it should practically be applied to questions of the information society, a society that is increasingly shaped by technology (cyberspace) and information. Co-operative Information Society Ethics is a more precise term, but because of its clumsiness we prefer to speak of Co-operative Cyberethics.

How has the space of possibilities of societal development changed? How has it remained unchanged? Modern society is based on an antagonism between self-determination and heteronomy, inclusion and exclusion. Co-operation is inherently inclusive, whereas competition advances exclusion and separation. Modern technologies have both advanced co-operation and competition under the premise of rationalizing the accumulation of economic, political, and cultural capital. In the information society (which might be better described by the term informational capitalism) social systems and structures are increasingly shaped by

knowledge, communication, and computer-mediated communication. This has resulted in the increasing importance of network logic and the globalization, i.e. time-space-distanciation, of social relationships. ICTs foster *networked forms of co-operation and competition*. New electronic media that are based on digitization, networking and computer technology are immersed in and embedded into the modern antagonism between competition and co-operation. Hence they don't have clear cut, mechanically determined, one-sided effects, but result in a set of multiple antagonistic uneven economic, political, and cultural tendencies, they pose both opportunities and risks. The task of Co-operative Cyberethics is to analyze the antagonisms of the information society, to question the uncritical appraisal and demonization of ICTs and the information society, and to stress the importance of the principle of co-operation for realizing sustainable development paths of the information society.

ICTs and knowledge today have effects that advance both the sustainable, co-operative, inclusive and the unsustainable, competitive, exclusive character of society. Depending on how ICTs are socially designed and applied they can have positive and/or negative effects on society. They can either have positive or destructive effects on the ecosystem, they can be designed in user-friendly ways or not, can be treated as free goods available to all for free or as commodities that are unequally accessed and distributed (the same is true for knowledge), can either support political participation or surveillance, can advance participatory online-media and the plurality of political information and communication or one-dimensional mass media, can foster a higher publication rate and speed in science (scientific online journals and reviews) or have due to the increasing publication speed negative effects on quality standards provided by the peer-review system, can put forward new forms of art (cyberart, electronic art) that involve audience-participation or have negative influences on the authenticity of artworks, they can support more co-operative or more individualized forms of learning and ethics, can foster both cultural diversity or fundamentalism, can have positive or negative effects on health and medical awareness, can advance and socialize or individualize and limit physical activity and games, and they can be helpful in advancing friendships and love or the sowing of hate (as in the case of right-wing extremists using the World Wide Web) (cf. table 1). In all cases today ICTs and information don't either have solely positive nor solely negative effects, but both positive and negative ones at the same time. There are enabling and constraining tendencies of ICTs and information in society and ecology today, it is a political task to advance and realize opportunities and to avoid risks that are related to ICTs. The task of Co-operative Cyberethics is to point out the problems of the information society and to provide arguments that suggest that co-operation advances a sustainable information society.

The discourse on sustainability has during the last decade shifted from its early narrow ecological confines towards including economic, social, and institutional aspects. Sustainability is a multi-dimensional concept. The goal of Co-operative Cyberethics is to provide arguments that help people to practically strengthen the sustainability of society. Sustainability is based on the desire of all human beings to live in a fair, just, and beautiful society. All humans want to live a good life, if one desires the right to have a good life, one must also recognize that all humans have the right to live such a life. Hence sustainability can broadly be defined as a good life for all. Society is made up of different, interconnected subsystems: ecology, technology, economy, polity, and culture. Sustainability is a desirable aspect that humans strive for in all of these subsystems. A sustainable society encompasses ecological diversity, technological usability, economic wealth, political participation, and cultural wisdom.

Wolfgang Hofkirchner and Ursula Maier-Rabler (2004) argue that society is facing a crossroads today that they term "the great bifurcation". "In the information age social evolution can be said to approach a crossroads that allows evolution of consciousness to shift to conscious evolution. This shift is the progressive upper branch of the great bifurcation of human history and of the history of the cosmos as well; the regressive, lower branch might decline and decay if humankind is not able to close the gap between technological and social evolution" (Hofkirchner/Maier-Rabler 2004: 2). An appropriate ethos for the information age would value positively all actions that create favourable conditions for the advent of a global sustainable information society, inclusiveness would be its most important value. "The ethos of the Great Bifurcation is all inclusive, it is about peace, respect for nature and justice (solidarity, freedom, equality)" (Hofkirchner/Maier-Rabler 2004: 5). Inclusiveness is an important goal, but we would like to add that the process for achieving inclusiveness is co-operation, hence an appropriate ethics for a global sustainable information society is best termed Co-operative Cyberethics.

Dimension	Quality	ICT- and Information-related Opportunities and Risks
Ecological Sustainability	Biological Diversity	Ecologically Sustainable vs. ecologically destructive ICTs
Technological Sustainability	Usability	User-oriented, user-friendly, enabling vs. Unusable, constraining ICTs
Economic Sustainability	Wealth for All	Free knowledge and ICTs vs. Knowledge and ICTs as commodity and private property
Political Sustainability	Participation of All	Participation vs. Control enabled by ICTs
Cultural Sustainability Sustainability of:	Wisdom	Wisdom vs. False Consciousness advanced by ICTs
Mass Media	Wise Knowledge and Media	Participatory, wise Online-Journalism vs. Manipulative, one-dimensional Online-Journalism
Science	Truth	Speed vs. Quality of E-Science
Art	Beauty and Imagination	Aura Gain and participatory art vs. Aura and authenticity loss of works of art in cyberspace
Education	Literacy and Good Skills	Co-operative vs. Individualized E-Learning
Ethics	Openness, Unity in Diversity of Values and Rights	Open VS. Fundamental Cyberethics
Medicine	Health	Positive vs. Negative effects of ICTs on health
Sports	Fitness	Advancement/socialization vs. limitation/individualization of physical activity and games
Social Relationships	Love and Understanding	Cyberlove vs. Cyberhate

Table 1: The main questions of Co-operative Cyberethics

The central conflicts and struggles of modern society (on property, power, and skills) have been transformed in the information age, knowledge now becomes a strategic resource in these struggles. We will now focus on two of the main topics of Cyberethics (cf. the discussions in Baird/Ramsower/Rosenbaum 2005): intellectual property rights and the force field of e-democracy and online control.

Knowledge is a strategic economic resource, property struggles in the information society take on the form of conflicts on the public or proprietary character of knowledge. Its production is inherently social, co-operative, and historical. Knowledge is in many cases produced by individuals in a joint effort. New knowledge incorporates earlier forms of knowledge, it is coined by the whole history of knowledge. Hence it is a public good and it is difficult to argue that there is an individual authorship that grounds individual property rights and copyrights. In the information age activities become more networked, interlinked, and dependent on each other, hence the question arises if there can be individual authorship.

Digitization allows the easy copying of knowledge such as texts, music, images, software, and videos, the Internet enables the fast and free global distribution of knowledge with the help of technologies such as peer-to-peer-networks (Napster, Audiogalaxy, KaZaA, KaZaA Lite, LimeWire, Morpheus, Edonkey, WinMX, iMesh, Bearshare, Blubster, SoulSeek, BitTorrent, Overnet, Toadnode, Grokster, Blubster, etc.). The informational content can be stored on different physical carriers, hence the possession of digital information by one person doesn't imply the non-possession of it by others. Information is an intangible good, its characteristics have implications for ownership that are different from those implied by tangible goods. In the case of physical property there can only be one possessor, in the case of information the good can be shared without not being able to use it. If someone takes my house from me, I am deprived of it and can no longer live in it. But if someone takes an idea from me, I can still use it, I am not deprived of it. John Ladd (1997) argues in this context that "there is no point I retrieving a bit of information that has been taken from you - because you still have it! Bill Gates has lost nothing if someone copies one of his software programs except money" (Ladd 1997: 52). He argues that it would be time for a thoroughgoing review of intellectual property from the ethical point of view.

Article 1, Section VIII of the US Constitution argues that the State should guarantee copyrights on writings and discoveries to authors and inventors in order to promote the progress of science and useful arts. But copyrights, patents, and intellectual property rights are today not mainly used for advancing science and arts, but for guaranteeing profits for corporations, this can result in the establishment of economic monopolies. With the help of intellectual property rights information is artificially transformed into a scarce resource, a monopoly for selling and licensing information is established for the information-owner. Intellectual property rights don't advance the public good, but the private accumulation of profit. Institutions like the Recording Industry Association of America (RIAA) sue providers and users of peer-to-peer-networks like Napster, Audiogalaxy, and KaZaA not because they think that downloading and copying kills music, but because they think that it kills profits.

One argument in favour of copyright and patents is that goods will only be developed if individuals and corporations can make profits from their activities. Copyright laws would be needed in order to guarantee progress and inventions. We consider such arguments as fetishism because they are based on an image of man in which people are only active if they can make economic profit and lazy if they can't. But humans don't produce because they have an immanent instinct for profit, but because they are active, creative beings that want to change the world. Deborah G. Johnson (1985) argues that "it is just false to claim that people only create things out of the desire to make money. Individuals create and will continue to

create [among other things computer] programs because they want and need them, for fun, for the challenge, and so on. […] So, even if computer programs were declared unownable - the strong version of a no ownership policy - program development would not come to an end" (Johnson 1985: 230f). Richard A. Spinello (2005) argues that "there is still a place for copyright protection, even on the digital frontier of cyberspace" and that "society must provide the level of intellectual property protection necessary to promote future innovation and creativity. […] If it [society] wants expensive movies and well-crafted artworks, it will have to protect those items as well" (Spinello 2005: 37). But movies and artworks are not due to monetary incentives for artists in the first place, but because of a need for artistic expression, creativity, and entertainment felt by individuals. It is a false and ideological assumption that people don't produce if there are no monetary incentives. The practice of open source information has shown that it is not true that no ownership practices concerning information result in a diminishing "quality and quantity of creative works" (Spinello 2005: 41) and a "diminished level of innovative content" (ibid.: 44). Open source software is non-commercial, free, and the result of co-operative efforts. Many stakeholders agree that the quality of open source software to a certain extent is better than the one of proprietary software. People engage in open source communities because they want to creatively express their ideas in co-operation processes with others. This shows that self-realization is a much stronger motive than profit. An article in the journal Nature has shown that articles in the open source encyclopaedia Wikipedia are about as accurate in covering scientific topic as the proprietary Encyclopaedia Britannica (Giles 2005). Spinello (2001) argues against Lawrence Lessing that the best way to avoid the commercialization of the Net is to rely on self-regulation and the moral point of view. He neglects that in a society that is oriented on profit, capital interests can't be countered simply by moral arguments because capital is blind for morality if it is in need for accumulation and especially if it is facing severe competition or crisis.

Information fraud in the sense of retrieving information from the Internet and claiming authorship for it is a generally unacceptable practice because it lacks the acknowledgement of the efforts others have made and the actors are not willing to actively participate in production processes. It is also immoral to sell these ideas. But we think that this is different with open source knowledge where one builds on the ideas of others and tries to improve them, acknowledges the efforts others have made, and gives others the right to furthermore improve the produced information if they also treat the newly emerging information as open good. Copyright doesn't keep people from appropriating ideas from others because frequently corporations take ideas and information they have not developed themselves and gain copyrights for certain products that incorporate and subsume these ideas. In the information society copyright laws don't guarantee the acknowledgement of authorship, they guarantee the exclusive commodification of knowledge by large corporations. The main concern of intellectual property rights is not authorship, but profit. Treating knowledge generally as open source good and keeping it hence out of the commercial realm helps to foster inclusiveness and co-operation.

Another important issue in Cyberethics concerns democracy and control in cyberspace (cf. e.g. Fagin 1998, Gampert/Drucker 1998, Introna 1997, Johnson 1997, Kling et al. 1990a, b; Moor 1997, Paletz 1996, Schulman 1998, Winner 1997, Wright/Kakalik1997). Cyberspace is a system that is organized in a decentralized way and allows many-to-many-communication of people who don't need to be present at the same place at the same time in order to establish a social relationship. Cyberspace enables time-space-distanciation of social relationships, humans are less dependent on physical, geographical space. Some scientists argue that the

decentralized organization of the Internet allows the emergence of direct-democratic grassroots communities that challenge the centralization of power and that hence a a participatory society will be established. Others say that the global networked information space allows the rise of totalitarian forms of surveillance and control. We think that cyberspace has both the potential to strengthen participation and surveillance, these are two tendencies that are at work at the same time and that contradict each other. There are examples that show that cyberspace can strengthen participation as in the case of the networking of global social movements and the emergence of alternative online media (cf. Fuchs 2006b) or the circumvention of censorship with the help of the Internet as in the case of the Serbian opposition during the war in Yugoslavia. And there are also examples that show that cyberspace can advance surveillance of individuals as in the case of the filtering and scanning of Internet communication by secret services after the terrorist attacks on September 11th 2001, Internet cookies, profiling of online behaviour for economic purposes, Trojan horses that spy on passwords, etc. If information is power and the cyberspace provides a global decentralized infosphere, then the idea of a global networked political community that is deliberative, gives power to the many, and in which individuals that are affected by decisions take these decisions in consensus-oriented co-operation processes arises from the very essence of cyberspace. We think that cyberspace has an inherent democratic potential and could strengthen the deliberative character of society by providing public forums for communicative action in which people could discuss moral questions in participatory ways as suggested by Habermas and other representatives of Discourse Ethics, but that this potential has not yet been realized due to the asymmetrical distribution of power and resources in the real world. Cyberspace is not-yet a democratic space, but a segmented, divided space (the problem of the digital divide) in which access, skills, and benefits are asymmetrically distributed along separating lines such as income, origin, nationality, class, race, gender, age, educational level, language, etc. As long as cyberspace is primarily a sphere of commerce and capital accumulation, the problem of the digital divide won't be solved. Establishing a participatory information society requires first of all a more just distribution of property and power. Another unsettled issue that arises is if the social cohesion and empathy that is necessary for communicative political action can be achieved in cyberspace (Johnson 1997).

Cyberspace on the one hand allows to communicate anonymously and to playfully gather interesting experiences by taking on other identities, on the other hand it is a huge global public storage of information that is to a certain degree person-related and can allow others access to many aspects of one's personality such as values, consumption preferences, sexual preferences, political opinions, party membership, religious conviction, etc. if they succeed in disclosing the anonymity of information. Anonymity can also advance criminal or even terrorist behaviour as the usage of computer-mediated-communication by Al Qaida-cells, neo-fascists and other hate-groups shows. Anonymous computer-mediated communication is for many a self-exploration of their personality that can playfully pluralize their identities (Turkle 1997), but anonymity in cyberspace can also advance new dangers such as cyberhate, the distribution of child pornography, cyberfraud, money laundering, illegal arms transactions, and drug trafficking organized online, etc. But one can't blame cyberspace itself for such problems because they arise not from technology, but from within society. Cyberspace both poses opportunities and risks to privacy and information security. Anonymous communication is desirable where it enhances the personality of individuals, it is not desirable where it harms others and where personal information is disclosed to others without agreement.

Why is privacy so important for human beings? Each individual is a complex personality characterized by a lot of different qualities and behaviours. In modern society revealing too much information about oneself can in certain situations result in personal disadvantages or dangers because there are power differentials and different interest groups in society that might view certain aspects of the personality or life of an individual as immoral which might cause hostile reactions. Hence privacy means to be able to control the intensity of social relationships all by oneself, informational self-determination and autonomy, the right to decide by oneself if one wants to disclose certain personal information, to whom, when, to which extent, etc. "To claim privacy is to claim the right to limit access or control access to my personal or private domain" (Introna 1997: 190). "We seek protection from strangers who may have goals antithetical to our own" (Moor 1997: 205). Privacy is most directly linked to the human right to freedom of opinion and expression. Privacy is on the one hand a typically modern value, an expression of the notion of humans as individual citizens and private property owners. On the other hand in class societies it has the positive function of trying to safeguard individuals from interference of alien interests into the small part of their life that remains relatively self-determined. Privacy is undermined by the state interest in surveillance of citizens' activities, an interest that is nourished by the state's fear of activities that undermine the legitimacy of the economic and political system. The outcome is a culture of distrust and control.

After the terrorist attacks on the WTC in 2001 the public discussion has increasingly shifted towards the view that online surveillance is an appropriate method for fighting criminality and that ordinary citizens have nothing to hide. The problem is that if online-spying and -surveillance are seen uncritically in the public, a totalitarian system of control that allows universal visibility of individual values and behaviours can emerge. In an antagonistic society such visibility can result in disadvantages and dangers for certain individuals. Most of us would e.g. not feel very comfortable if their boss knew about their medical record or their political and sexual preferences because they would be afraid that he could consider certain personal values and behaviours as immoral which could result in forced job-cancellation. The solution to cybercrime and cyberterrorism is not to erect universal visibility, but to tackle the societal causes of these problems. It is out of place to moralize like e.g. Susan Dwyer (2005) about cyberporn that it would facilitate "sexual fantasizing, often, of a morally problematic sort" (Dwyer 2005: 87) and to argue that cyberporn advances thoughts of degradation, abuse, and humiliation. Much more in place are material critiques that argue e.g. that it is an ideology of the New Right that cyberporn is the greatest danger for society because the obscenity of capitalist patriarchy that produces poverty, sexual violence, the exploitation of women, and precarious conditions aren't abolished by the discussion if cyberporn is immoral and should be censored (Eisenstein 1998: 52f, 92). "One is left to believe that the greatest harm that children face in this transnational corporate globe is smut, rather than hunger. (…) Even though the net reproduces old forms of sexual and racial privilege more than it unsettles them, cybertechnologies also contain a radical potential for the undoing of racialized and sexualized identities" (Eisenstein 1998: 52, 92).

Law and order policies for cyberspace don't remove the causes of problems, abolishing the right to anonymous communication could result in a totalitarian society. Cyberspace is a system that due to its decentralized form can never be fully controlled. It makes sense for law enforcement to hold individuals responsible for crimes that are committed online or in connection with cyberspace, but it is dangerous and highly problematic to normalize and to morally welcome online-surveillance. Universal surveillance of cyberspace is neither desirable nor technologically possible. The threat of a totalitarian

regime that uses networked ICTs for establishing surveillance is real because all the data about individuals collected online, in public places (e.g. video camera surveillance), daily life (credit cards, etc.) can be stored in databases and combined so that search queries can be formulated that produce results that show who thinks what and has done what where and at which point of time. The result could be a panoptical disciplinary society as imagined by Foucault where people either are disciplined by state-power or discipline themselves because of fear of the universal visibility of their thoughts and actions. In the information society there are endless global flows of information and communication, the computer is a universal medium for the storage, manipulation, and transmission of data, in order to enhance the well-being of human beings privacy needs to be secured in cyberspace, i.e. technologies and policies are needed that enable individuals to make sure that nobody to whom they don't allow insight into personal information that is transmitted online gains access to such data in the Internet that functions as a sort of global memory that hardly forgets.

One task for Co-operative Cyberethics is to provide arguments that help people in strengthening the character of cyberspace as a system for political communication and co-operation and to criticize attitudes and practices that deepen the digital divide and online-surveillance.

Comparing cyberspace communication to traditional communication shows that in the first gestures and facial expressions are missing, that it is more expressive and affective, that norms of communication are easier violated, that one can easily communicate with people that one has never met before and that come from all over the world, etc. These characteristics can result in communication problems that are specific for cyberspace. In order to avoid such problems general rules for conducting online communication known as Netiquette have been established. They identify online behaviour that can derange other users. The Request for Comments (RFC) 1855 Netiquette Guidelines take three areas of online communication into account: one-to-one online communication, one-to-many online communication, and online information services such as chats and the World Wide Web. The guidelines e.g. point out that you "should not send heated messages (we call these "flames") even if you are provoked" (RFC 1855: 2), that emails generally shouldn't exceed 100 lines except if they are signified as "long" in the subject header, to be especially careful with sarcasm, to "use smileys to indicate tone of voice, but use them sparingly" (ibid.: 3), to make reality checks before assuming a message is valid, to be careful with slang and local acronyms, to always say goodbye in personal chat communication, to avoid flame wars, not to respond to incendiary material, to don't badger other users in chats for personal information such as sex, age, or location, to respect chat user's desire for anonymity, not to greet everyone in a chat room personally, etc. The novel aspect of Internet communication is that it is text-oriented real-time communication that transcends spatial (and in the case of e-mail temporal) distances. The phenomenon of Netiquette shows that there are new strategies emerging for coping with the lack of facial and emotional expressions in textual communication, with the problems that might arise from cross-cultural encounters and anonymity in cyberspace, and with the question of how to transfer symbolic gestures such as greeting and leave-taking into a technological communication space.

6.   Conclusion

Cyberspace is embedded into societal structures that don't result in an entirely new society, but also don't leave society unchanged. Old questions such as the conflict between co-operation and competition that appears in modern society in the form of conflicts on property, power, and symbols take on a new form. Cyberspace raises new questions such as the status of information as public or private property and its potential for strengthening democracy and enabling new forms of surveillance that threaten privacy. The task for Co-operative Cyberethics is to point out the real possibilities for strengthening societal co-operation and the co-operative character of cyberspace in the information age and to criticize approaches and arguments that advance the competitive character of society and cyberspace. It rests on the principle that co-operation enables forms of social life that are more fulfilling, self-enhancing, democratic, inclusive, and participatory than the ones brought about by competition. To provide arguments that show the superiority of co-operation over competition is one of the central tasks of ethics in the information age. A sustainable information society, i.e. a society that guarantees a good life for all, will be a co-operative society.

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