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The Ethos of the Great Bifurcation

Abstract:

In the information age ethical questions are raised about the actual course of the evolution of humankind which is now at a critical crossroad – the Great Bifurcation. Values like peace, respect for nature, justice, solidarity, freedom and equality assume greater importance. They all constitute the ethos of the Great Bifurcation. This ethos has practical implications. E-policies when based on this ethos have to go beyond techno-oriented solutions in order to bring about a sustainable global information society.

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Acknowledgment

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The Great Bifurcation: from evolution of consciousness to conscious evolution

The evolutionary perspective of ethics integrates the internet and our experience with technology, our own history as part of the history of nature, our planet and the known cosmos, and it enables us to relate the advent of internet society to ever-more fundamental trends and, most significantly, to link ethical considerations to real-world processes.

In 1983 Jonathan Salk wrote (112): "The most meaningful activity in which a human being can be engaged is one that is directly related to human evolution. This is true, because human beings now play an active and critical role not only in the process of their own evolution but in the survival and evolution of all things. Awareness of this places upon human beings a responsibility for their participation in and contribution to the process of evolution." And Bela H. Banathy added in 2000 (203): "If we accept this responsibility and engage creatively in the work of evolution we shall take part in a crucial and a first ever event in the seven million years of our evolutionary saga: We shall be the designers of our future, we shall become the guides of our own evolution and the evolution of life on earth and possibly beyond." These ideas resemble the ideas of the noosphere to come, a term coined by Pierre Teilhard de Chardin (1975) and Vladimir I. Vernadsky (see Hofkirchner 1997) between World War I and II. In the information age social evolution can be said to approach a crossroad 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 (Banathy 2000, 193): "While our recently emerged communication capabilities created the potential and the conditions for global human community, our consciousness is still locked within ethnocentric, racial, and national boundaries. ... Furthermore, the technological revolution, while giving us an earlier unimagined power, has accelerated to the point where we have lost control over it." "We have simply failed to match the advancement of our technological intelligence with an advancement in socio-cultural intelligence, and advancement in human quality and wisdom" (Banathy 1996, 315).

In short, the development of human society may be entering a critical phase which requires a particular kind of conduct to enable humanity to succeed. Evolution itself suggests a particular ethos to guide humanity if it is to survive and to take advantage of the opportunities that present themselves. This is the ethos of the Great Bifurcation.

The praxeo-onto-epistemological stance: praxis as point of departure

The rationale for dealing with ethical questions from this point of view is what one of us calls elsewhere a praxeo-onto-epistemological stance (Hofkirchner et al., in preparation). Praxeology is defined as the philosophical theory of praxis. Praxeology, therefore, refers to the philosophical theory of human actions in regard to their efficiency, effectiveness and efficacy as well as their moral value and beauty (see divergent views in Mises 1999, Kotarbinski 1965, Bunge 1999, Collen 2003).

As the most general way to reflect on human beings and their position in the world, philosophy has always posed a number of fundamental questions. One question deals with values, norms, imperatives and guidelines for action. Another is about the world as it is, i.e. its properties - with humanity or without it. A third question is about our ability to produce knowledge. The first question deals with the domain of ethics, aesthetics and axiology. We propose to subsume it to the above defined praxeology. The second deals with the domain of ontology. The third, the domain of epistemology, includes the methodology of inquiry. These three domains may be handled either as separate fields of philosophy or they may be networked or even nested. The latter is the solution proposed in this paper.

From our praxeo-onto-epistemological position, the fundamental questions of philosophy can be reformulated by starting with the praxeological question and subsequently proceeding to the ontological and the epistemological questions:

1. What should the world be like?
2. How can humans make the world what it should be like?
3. How can humans understand how they can make the world what it should be like?

Guidelines for action require ideas about where human actors start from and ideas about where human actors start from require tools with which to recognise the starting point. If human beings want to succeed in changing the world they need to know the circumstances that promote the goals they have set themselves. And in order to gain this knowledge they must apply all appropriate means. Hence the praxeo-onto-epistemological standpoint is indeed one in which praxeology does matter: ontic propositions bear the stamp of practical instructions and they pass this stamp on to epistemic methods.

Many cultures and one world: unity-through-diversity

The ethos of the Great Bifurcation assigns a positive value to every action that creates favourable conditions for the advent of a sustainable global information society and it assigns a negative value to every action that is detrimental to the advent of a sustainable global information society. The point is whether or not a sustainable global information society represents a universal human value and how it relates to a particular one. Possible and actual answers reflect four ways of thinking in the intercultural discourse. They are about the relationship of the One and the Many.

How to conceive of the relationship of the One and the Many turns out to be of utmost importance when applied to our divided human society (which – for reasons of simplicity – we will refer to in terms of cultural identity). Due to global challenges that endanger our species as a whole and that must be met by a single set of intelligently co-ordinated actions, the partitions of humanity are at the point of forming a unit on a planetary scale. The design of all our future depends on it. There are two options. Either one of the antagonists gains the upper hand or they are reconciled. While the former may be perceived as subjugation under a strict rule or as "anything goes" the latter indicates the antagonists need each other. The latter, the idea of unity-through-diversity, was the leitmotif guiding the work of the founder of the general system theory, Ludwig von Bertalanffy (Gray & Rizzo 1973).

In this respect the diversity of cultural identities represents the so-called Many (see Hofkirchner 2002). The question here is how one of the Many relates to another and how the Many relate to the whole that consists of all the diverse elements of the manifold. Is world society to become the common denominator of the various identities? Or is one of the Many the only One? Or is the One merely an aggregate of the Many? Or do the Many participate in a One that rises above them?

The reductionist way of thinking in intercultural discourse is called "universalism". Cultural universalism reduces the variety of different cultural identities to what they have in common. Identities are homogenized by a sort of melting pot which has been referred to as "McWorld" (Barber 2001). Modernism, the striving for human rights, democracy and capitalism based on the same kind of metabolism and realized everywhere by means of the same technology is universalistic – teetering between a claim to liberalism and pompous imperialistic behaviour in the eyes of its adversaries. In either case it destroys the richness of cultural identities; the Many are reduced to a shallow One; there is no diversity in this unity.

A second strand of intercultural discourse revolves around a school of thought that misuses projection. It may be called "particularism" or "totalitarianism". Cultural particularism or totalitarianism extrapolates what separates one cultural identity from the rest and construes an imaginary common universal. It also leads to homogenisation. The melting pot in this case, however, was referred to as "Jihad" (Barber 2001) because it is anti-modern fundamentalism that may be a good example of the imposition of a particular One chosen from of the Many on the rest. Here a culture that is credited with very specific social relations is elevated to an ideal in order to serve as a model to all other cultures. Thus a particular form is made the general norm. In as much as it is *something particular* that is promoted in this manner, it is particularism. In as much as it rises to be the *general norm*, it is totalitarianism. This too produces unity without diversity.

A third way of conceiving of intercultural discourse is "relativism". Cultural relativism rests on the idea of dissociation. By denying that different cultural identities have anything in common it yields fragmentation. The Many fall apart. These concepts of multi-culturalism and separatism suit postmodern thinking. Here each one of the many cultures is conceded the right to exist as well as freedom from external interference. Each particular culture constitutes an autonomous norm. In as much as it is one of the Many that is made a norm, we may speak of pluralism. In as much as every particular culture is treated thus, we are obliged, however, to speak of indifferentism. Relativism does not claim general validity and it does not wish to unify

anything or anyone. The postmodernist approach leaves differences alone. Anything goes. World society would simply be diversity without unity.

None of these three options is satisfactory. None of them can conceive of a sustainable global information society. Either the One is regarded as the necessary and sufficient condition for the Many. Or the Many are considered necessary and sufficient for the One. Or the One and the Many are deemed to be independent.

The One and the Many can only be reconciled in terms of unity-through-diversity by an integration-and-differentiation approach. It integrates the differences of the manifold cultural identities and differentiates what they have in common at the same time. W. Welsch (in Pongs 1999: 243) coined the term "transculturalism"; and the notions of "glocalisation" (Robertson 1995) and "new mestizaje" (a term introduced by John Francis Burke in Reconciling Cultural Diversity with a Democratic Community: Mestizaje as opposer to the Usual Suspects; in Wieviorka 2003, 80) are useful in this context. They may be linked to the concept of reflexive modernism (Beck 1998).

The process of emergence of a sustainable global information society may be sketched as follows: diversity is sublated and leads in an evolutionary leap to a unity-through-diversity which, in turn, enables and constrains diversity in order to produce diversity-through-unity which leads to a new base for unity-through-diversity. The Many are the universal that undergoes a transformation from an abstract universal without a One to a concrete universal; the One is the particular that colours the universal. World society is located on the macro-level; the partitions of world society which are located on the micro-level take care of world society in order to preserve humanity. The ethos of the Great Bifurcation guides us on our way to a sustainable global information society, one constituted by the Many and resting upon the manifold that, in turn, is in line with the One.

Individual and society: inclusiveness

The proper relationship between the One and the Many in the sustainable global information society is an inclusive one. This inclusiveness of cultural identities as partitions of humanity on the one hand and in world society on the other applies to a more fundamental relation as well – the relation of the individual to society.

According to the different roles human actors play as members of a social community there are different forms of inclusion of the individual in the subsystems of society or of exclusion from the latter as well as different values. We may distinguish the following social systems: the technosphere, the "ecosphere" and the sociosphere with the economic, political and cultural sphere. And we may accordingly distinguish the following basic values each of which relates to one sphere: peace, respect for nature and justice (solidarity, freedom and equality) (see Hofkirchner et al. 2003).

In detail: Technology is to augment the actors that take the role of productive forces in that they produce something when they aim at something. The technosphere is the sphere in which the actors of society carry out their instrumental activities. Instrumental activities are the use of technologies as well as the creation of new technologies. The overall aim to which the technological augmentation of productive forces is to contribute is to secure a peaceful development of civilisation. Thus, peace is the value we find at the level of the technosphere.

"Ecosphere" is the label for that sphere of society that comprises the flows of matter and energy in support of the physical life of the actors. Contrary to all the other forms of life on our planet, humans are able to consciously design their metabolism and to produce their *umwelt* whenever nature itself is not capable of reproducing itself for the sake of human beings. Sustainability denotes such a delicate balance between human nature and humanised nature. Sustainability can only be reached when the value of respect for nature scores high.

Technosphere and ecosphere set up the basis of society. The sphere in which the actors as social beings construe social relations concerning resources (economy), regularities (polity) and rules (culture) may be termed "sociosphere". In the sociosphere social actions are carried out. Tangibles and intangibles (goods, be they material or immaterial) are produced and consumed. Every social being is called on to co-design the collective in which the supply of the goods is provided. The more access the actors have to the supply, the better-balanced, fair and just the sociosphere is. Thus justice is the value we can identify at the level of the sociosphere.

Economy is about the social survival or self-preservation of the actors through access to

resources. Economy is that sphere of society where the actors do work in order to meet their needs. The social relationships that emerge here and channel the self-preservation of the actors are property relations – property being the disposition of resources. In accordance with the power of disposition, resources are allocated to the actors, that is, goods are distributed to them. The regulative idea for the allocation is solidarity.

Politics is about power, the power to decide or authority. Disposition over the means to exercise power is the ability to influence decision-making processes about circumstances of life in general including economic affairs. It represents regularities in the way actors pursue their interests. By resorting to authority actors are authorized to decide themselves. The more political actors influence decision making, the more they are deemed free. Thus freedom is an inherent value of the political sphere.

Culture is about rules in society, including regularities of political life. It is the field of discourse in which the actors can express themselves as long as they gain influence by sharing the power to define values, ethics and morals (Artigiani, 1991). The power of definition legitimises actors to act in a particular way. The ideal of equality would be realised if all cultural actors shared the same power of definition.

Exclusion from activities in one of the spheres means that the respective value intrinsic to the sphere in question is not fully realised. Exclusion from activities in the technosphere yields alienation from technology and exclusion from activities in the ecosphere results in alienation from nature. Exclusion from activities in the sociosphere produces alienation from fellow humans, that is, non-compliance with solidarity in the economic sphere is tantamount to expropriation; the failure to implement freedom in the political sphere generates a lack of political power and the failure to achieve equality leads to a loss of influence by members of society. Exclusiveness is a characteristic of social relations governed by domination. Exclusion identifies societies in which some actors dominate other actors. Weaknesses in the interplay of the individual and society tend to lead to domination. Since a sustainable global information society is inclusive, the interrelation between the individual and society is the basis of their mutual enrichment.

Contradictions of the internet: basic values contested

The ethos of the Great Bifurcation is all inclusive, it is about peace, respect for nature and justice (solidarity, freedom, equality). Informatization catalyzes fundamental societal developments causing them appear in a new light rather than opening new options *ab novo*. The aggravation of antagonistic tendencies in societal development on the threshold of the global information age is the continuation of the antagonisms that are due to the particular construction of the societies in the epoch of domination. This particular construction is the realization of the potential inherent in the general conditions of human processes.

From the perspective of society as a whole, the advent of the information age is characterised by an antagonism between the information rich and the information poor which continues the antagonism between inclusion and exclusion in a different way.

In the technosphere domination has been exploiting potential weaknesses of human technological activity and fighting alienation from technology in the cause of peace and security. ICTs intensify this conflict as human beings take up the fight against the “Megamachine” (Mumford, 1964). The spread of ICT revolutionizes the use and creation of technology. Technology itself undergoes change. The machine of the industrial age, which merely mechanised physical human capabilities, turns into an automaton when coupled to the computer in order to mechanise particular abilities of the human brain. This process applies to the infrastructure of society as a whole. The ambivalence of informatised technology reveals itself: Will automation contribute to augment productive forces and advance security and peace and thereby the integrity of our civilisation? Or will it serve destructive purposes and raise the vulnerability of the information society?

In the ecosphere the human process of survival has been unfolding the contradictory tendencies of respect for and alienation from nature under the sway of domination. These tendencies metamorphose into the contradiction between human beings and “Gaia” (Lovelock, 1987) in our developing information society. Industrialisation multiplied material and energy fluxes to an extent never seen before. They threatened to get out of control. James R. Beniger (1986) calls the information revolution in this respect “control revolution” by which control over such flows can be regained. The question arises: Will the control

revolution be used to restore the balance between human beings and their *umwelt* and will it raise ecological integrity? Or will it accelerate the degradation of the environment by the increasing use of computers?

In the sociosphere there is an underlying antagonism between human beings and the "Net" (as pointed out by Castells).The antagonism in our information age is reminiscent of the antagonism between justice and the alienation from fellow human beings, which is the form in which the production of sense appears in the epoch of domination. The increasing number of ICT applications dislocated throughout the sociosphere creates our network society (Castells). Networking means the increasing interdependence of actors and the increasing dependence of these actors on access to the means of managing the interdependence provided by ICTs. Will networking facilitate the access to supplies and will it promote justice to raise social integrity? Or will it contribute to social disparities, increase potential conflicts and raise the digital divide?

In the economic sphere the drive to remain economically viable has suffered under the conflict between the principles of solidarity and expropriation in societies characterised by domination just as it has under the conflict between the great hypertext, "cosmopedia" (Pierre Lévy, 1994), which comprises all human knowledge, and the information monopolies under the influence of ICTs. The information age is characterised by knowledge becoming an essential resource, as well as a new factor in the economic production process of society (Toffler, 1981). "Knowledge mining", however, has to deal with a particular attribute of knowledge which affects its handling as a commodity. In sharp contrast to other goods, knowledge is a good that, in principle, is not used up after use - it does not vanish. For that reason, knowledge is a seemingly infinite resource while the economy is said to deal with scarcity only. Thus the basic question about the informatisation of the economic sphere is: Will knowledge be made accessible to every economic actor who is in need of it? Or will knowledge be kept within the bounds of private ownership and treated as a commodity?

In the political sphere self-determination becomes antagonistic when domination prevails. The antagonists are freedom and lack of power. They reappear as e-democracy and Big Brother when entering the information age. The introduction of ICTs alters the nature of the polity: it becomes the agora of "noopolitik" where governmental and non-governmental actors meet, while bureaucracy turns into "cyberocracy" (Arquilla, Ronfeldt, 1999, Ronfeldt, 1992). What is at stake here is: Will the informatised polity empower the political actors? Or will it extend its control over them as nationals or foreigners (Information Warfare)?

Under the sway of domination in the cultural sphere, the self-expression of human actors brought on the antagonism between equality and a lack of influence due to a false consciousness. This antagonism turns in the course of informatisation into an antagonism between (sientific) rationality and (mass) media manipulation. The information revolution affects the mutual dependence of science on the one hand, and values, ethics, morals on the other, by giving more scope to the role of scientific thought in society. Science is committed to truth. Will the penetration of everyday life by science help suppress rules of social interaction that are not in compliance with findings that are claimed to be true and, in turn, will it help place an obligation on science to undertake inquiries in the interest of truly human purposes only and will it thereby help to create a true noosphere as Teilhard de Chardin and Vernadsky envisioned? Or will it contribute to distorting consciousness by infotainment and disinformation and to distorting conscience?

Historically, the ethos of the Great Bifurcation pursues the establishment of values that are antagonistic to the rule of domination. ICTs can promote these values. But they can also be used to prolong the exclusion of people from influence and thus to hinder the advent of a sustainable global information society.

Building capabilities: e-policy ethically based

In order to facilitate the advent of a sustainable global information society, the digital divide between information haves and have-nots has to be overcome both within nation-state-bound societies and between them. E-policies, that is the strategies for the introduction of ICTs in a certain technological, ecological and social or economic, political and cultural environment have to be based on the ethos of the Great Bifurcation. They have to consider the whole spectrum of societal practices in which the One and the Many may have dissociated. Hence the techno-deterministic concepts "access" and "usage" seem not to reach far enough to really get people involved and informed (Maier-Rabler, in

preparation). Most governments around the globe emphasize the diffusion and implementation of ICTs and particularly the Internet as a major opportunity to preserve and to strengthen economic competitiveness and as a chance to overcome social and economic divisions within their states. By means of e-policy strategies governments aim to overcome the Digital Divide within their societies. The objectives of these initiatives are in the first place to strive for economic growth and development followed by measures to raise democratic participation. The goal is a more inclusive society, one where inequalities between rich and poor, between men and woman, young and old, urban and rural, decline due to increasing wealth through competitiveness and more jobs. Yet, "what characterises policy documents is the dedication to neoliberalist discourses that seek to legitimate control over the production and distribution of new technologies" (Sarikakis & Terzis, 2000, p. 117). But the neo-liberalist rhetoric and techno-determinism of most e-policy papers are not adequate to resolve the targeted issues. This view is shared by most critical e-policy-studies (Golding & Murdock 2001; Light 2001; Burgelman 2001, Cammaerts/Burgelman 2000; Warschauer 2002, Aichholzer 2002).

Going beyond the techno-deterministic critique, Robin Mansell argues "for a rights-based approach to new media policy. [...] Because of the power of the new networks, it is essential to move beyond concerns about issues like media and Internet access and social inclusion. We need to link discussions about the new media and the power of networks with discussions about human rights" (Mansell, 2001, 2). Drawing on a capabilities approach to e-policy strategies, Mansell argues, more than technical access and technical skills are needed if we want a society that includes everyone on the basis of individual capabilities. Simple access orientated concepts without conceptual consideration of social, individual, and cultural factors will show unintended negative consequences.

Capabilities are acquired capacities and the ability to discriminate between alternative choices. They are the essential underpinning of the freedom to achieve whatever lifestyle people want. Sen (1999) argues that striving for capabilities is a basic human right and that people are entitled to acquire capabilities.

Therefore, e-Policy must ensure the same opportunities to all when they try to acquire capabilities in order to make informed decisions regarding the Internet. This rights-based approach to new media politics stands for a complete rethinking of e-policy. The responsibility of the state does not end with the provision of a technical infrastructure to people and with the promotion of preparatory training courses. The state has to provide equal opportunities to everyone trying to acquire these capabilities. To entitle people to acquire capabilities means empowerment rather than just passing on skills. It revolutionizes most of the existing plans for introducing the Internet into our education system. Aiming at people's cognition does demand less standardized and broader and more individualized concepts. People must be made familiar with all the consequences of the Internet for their personal lives as well as for society as a whole. This embraces knowledge of abstract consequences on the one hand and awareness of options for its utilization.

Therefore, the capabilities-approach to e-policy is a matter of the distribution of power and influence between the involved institutions of society. There is however an inherent danger - that of capable people making unintended and unwanted choices. Mansell acknowledges that Sen's work offers a very helpful way of thinking about issues of rights and entitlements in this context. She is concerned about how much human potential is lost because of people who are unable to use the new media networks. Whereby usage by her definition is not simply about acquiring skills to get on the Net or use diverse net services (p. 3). A capabilities-approach to e-policy aims to ensure that people can acquire and expand cognitive capacities as well as the ability to discriminate between alternative choices offered by new media and the Internet.

"These capabilities are the foundations of the freedom which allows individuals' needs to be met" (Mansell 2001, 3). She argues for a public obligation to develop new media spaces in ways that augment people's capabilities in this respect and argues that more policies to reduce the so-called digital divide are not the answer here. "We have to consider questions about new media policy, democracy, social development and distributional equity together" (p. 7).

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