The Information Society: Innovation, Legitimacy, Ethics and Democracy

In Honor of Professor Jacques Berleur s.j.

Edited by

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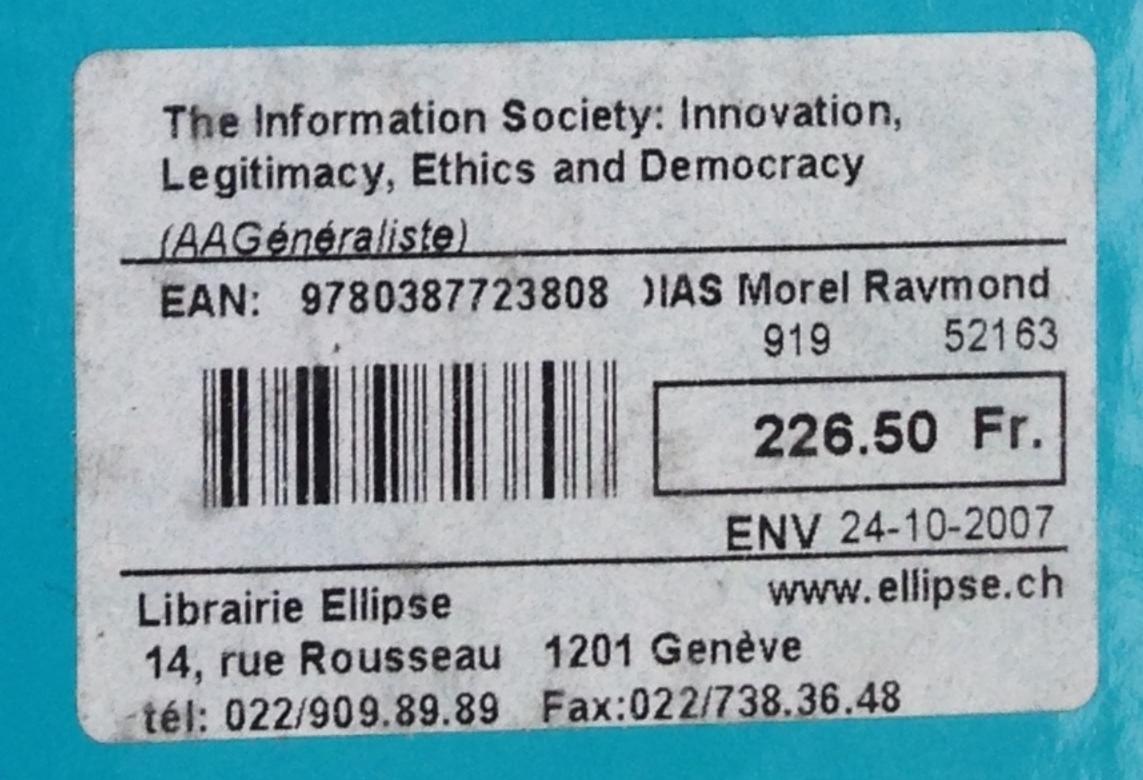
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International Federation for Information Processing

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To Professor Jacques Berleur s.j. …

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Leaving, dear Jacques is always to stay a little. Your work and your actions are only milestones along a long road, which you traced out early on, still far from the end. Your intellectual integrity was never willing to settle for "close enough". We are more moved – dear professor, dear friend – than we are able to show.

It is impossible to give an account here in an adequate manner of a career so complete and rich, containing so many accomplishments and achievements – inasmuch as I only recently arrived at the Institute for Informatics, and did not take part in this long institutional and intellectual effort. Outside the brilliant administrative career which saw you attain the highest responsibilities in our institution, where you carried out the duties of Director of the Institute for 5 years, serving also as Rector of the University for nine years, in the international organizations or in professional organizations and federations, intellectually you have been one of those who founded the field, today so important and prosperous, known as "informatics and society ". It is still difficult to take account of such a vast domain, which includes aspects that connect it to law, to ethics, to politics, to philosophy, to sociology and even epistemology, it is enough to note that your contributions in all these domains have been numerous, fundamental, and brilliant. Your commitment to the defence of the idea of an ethical and humane informatics has never weakened. You have continued to fight against the idea of technical destiny, implying some sort of technical inevitability, continuing to evaluate a technology in the process of a stunning evolution on behalf of the idea of a technological democracy, ethical governance, and the possibility of a real social appropriation of information technology, all while never giving in to mere pragmatism nor to techno-economic rationalism, while continuing to seek protection for human dignity. The many missions you have engaged in, and the many, many miles you have travelled, all in accordance with your religious conscience, have also allowed you to connect fundamental research with fundamental social concerns, always on behalf of an informatics that serves man, all without falling victim on the other hand to the vertigo of utopias.

You have worked hard for the development of a humane informatics aware of its responsibilities; you have contributed much to the existence of a critical perspective independent of technical and economic determinism. You can be proud of the results obtained over the years, as of all your work. The hardest steps are yet to be taken, but you have clearly traced out the path to be followed.

The Institute has desired to pay you homage, dear Jacques, by pursuing not your work - for that would be quite presumptuous on our part - but indeed the problematic which has stimulated your work, by editing this book which represents the proceedings of a conference held in May 2006 in Namur marking the culmination of a series of research seminars "Communication and Society: technical reason, ethical reason, and democratic governance" held between February 2005 and May 2006.

This colloquium has been made possible thanks to a collaboration between the Institute of Informatics and the ICAM of Lille, France, with my colleague Sylvain Lavelle of the Catholic Institute for Arts and Trades (F) and through support from the Interfaculty Technology Assessment Group of the FUNDP, Namur (B), and with the support of the Center for the Philosophy of Law of UCL, in the person of Tom Dedeurwaedere, and in cooperation with the working group 9.2 of the International Federation for Information Processing (IFIP).

Foreword

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A conference to honour the professional life of Jacques Berleur has inevitably been a platform for debate on the most fundamental issues that pre-occupy the working groups of the IFIP Technical Committee 9 (TC9) on the 'Relationship between Computers and Society'. Jacques Berleur has of course been one of those few ICT experts who, since the 1970s, has tirelessly worked within the IFIP community to expose the nature of the ethical dilemmas of a society increasingly relying on the complex ICT infrastructures, to raise awareness of the social challenges this poses, and to influence action compatible with the ethical values of western democracy. And while Jacques, in the wake of his retirement from his university post is accelerating the pace of building his oeuvre, we can take the opportunity of this event to reflect on the critical stance towards the Information Society he has contributed to form within the TC9, which he chaired for many years.

The institutional location of TC9 has been a crucial factor for shaping the focus of its conferences, publications, and other activities. Formed within IFIP's fraternity of computer scientists and engineers in order to address the social implications of the technology they have been developing, the TC9 has for very long been – and in some working groups continues to be – acting as the 'voice of consciousness' of professional technology designers. It has been geared primarily towards creating awareness of the way ICT innovation impacts on human institutions and has aimed at cultivating a professional attitude of respect to societal norms and values. Within this context the concept of 'human choice' emerged as the focal slogan of TC9, initially referring to choice in the design and deployment of technology.

With this inherently optimistic stance of privileging human agency over imperatives of technological 'progress', TC9 has fostered a critical discourse towards technological innovation and socio-economic change that has in many ways grown beyond its initial mission of informing socially aware technology design. The unfolding socio-technical change brought along multiple new actors whose professional or private action choices contribute towards shaping the ICT-mediated institutions of the contemporary world. While choice in technology design continues to matter, political choice of governments and citizens, economic choice of investors, business managers, and consumers, as well as the everyday choice individuals

exercise in the way they live their lives, all came to be recognised at TC9 *fora* as contributing to the construction of the so-called Information Society.

A number of key principles of social critique set from the very first TC9 conferences continue to be relevant today: improvement of the quality of working life, avoidance of centralization of political and corporate power due to concentration of information in huge databases, safeguarding of privacy, avoidance of surveillance at the work place and society at large, promotion of democracy at the work place and society at large. But the contentious issues have become more complex at the age of the internet and globalization. Unprecedented opportunities for social and economic reform opened up with advances in ICT and the visionaries of the Information Society in Europe and elsewhere set a course of innovation that spans the domains of employment, government, education, health, and leisure, but they have been accompanied by greater risks of social destruction. With the threat of unemployment ever-present as jobs migrate under the conditions of competition of the global economy to work forces accepting lower salaries, issues regarding quality of working life are rarely addressed and social welfare provisions of the era of industrial democracy are considered a luxury that even the strongest modern economies ill-afford. Security vulnerabilities lead governments and management to deploy ICTs for surveillance, violating principles of privacy. Continuous technology innovation in competitive open market economies do bring growth, but also inequality and the world is tolerating conditions of extreme poverty for significant minorities in the advanced economies and vast populations in developing countries. Amidst the euphoria for the virtually unlimited circulation of information over the internet, panic was created about the 'digitally excluded'. Less fuss is made about the continuing large rates of illiteracy, and only a few scholars are concerned with the cultivation of the critical judgement required for somebody to make sense of the relevance, 'truth', or meaning of information available on the internet.

In this context of continuing socio-technical change the critical tradition of TC9 research and debate faces new challenges. The principles of choice, accountability and ethical conduct continue to be of utmost significance. But there is need to understand what is the scope and options of choice under the emerging socio-technical conditions. And the ethical dilemmas of a multicultural global society are in many ways more difficult than in culturally homogeneous national societies. Besides, how is accountability to be exercised at the age of ICT-mediated globalization? Is western-type of nation-state representative democracy still appropriate and viable? Are the more immediate forms of direct citizens' expression of choice enabled by ICT more effectively democratic? A testing case for many of the challenges of the emerging social order concerns the efforts made for the control of the very ICT infrastructure and the access to information it can potentially support, the so called governance of the internet. It is no surprise that this is now a major preoccupation for Jacques Berleur's critical might. It is now widely accepted that, though initially heralded for its anarchic technical nature and its potential for breaking through economic conventions for unlimited access to information without authority constraints and at virtually zero cost, the internet needs to be 'governed'. But how much and what kind of government is appropriate for the techno-information infrastructure of the contemporary global world? What aspects need to be controlled or safeguarded? Domain names? Intellectual property rights? The

circulated 'content'? Access to available sites? Who should have governing powers? Nation state governments, economic actors, civil society bodies, or a mix of all of them? What is the basis for the legitimacy of internet governing power for each of them? How should the governing body be appointed or elected, and who should they be accountable to? Wouldn't its jurisdiction conflict with principles of national sovereignty? What mechanisms may be instituted for enacting and policing the decisions of such a supra-national governing authority? Such questions cannot be answered by abstract theoretical principles alone – indispensable as such thinking may be. There is no other way of making sense of the scope of choice but to engage with the unfolding events and realignment of actors, as Jacques Berleur does. This is what makes the discourse of the TC9 conferences part of the critical socio-theoretical tradition.

In short, the mission of TC9 has been broadened and changed as the socio-economic reforms ICTs are mobilized to enable have become increasingly more complex and radical. Its target audience now includes politicians, bureaucrats and NGO functionaries, managers, activists, and citizens at large. The ethical issues it studies implicate not only technology choices but also the shaping of a new socio-economic regime and the formation of new governance structures. The challenges are in many ways unprecedented and the techno-economic logic too confident and powerful to respond to critical investigation. The stakes for this community of discourse are raised higher. The issues that demand attention are complex and effective argumentation requires theoretical competence, empirical detail, and analytical rigour. But general argumentation, valuable as it may be, is not enough and TC9 has still to develop a think-tank role capable of addressing responsibly specific crucial questions and harnessing a more influential range of activities. Jacques Berleur, already engaging in action for a such as the WSIS, has a lot to teach us to that end.

General introduction

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Towards an Information Society

The impact of techno-scientific developments on societal evolution and lifestyles no longer needs to be demonstrated. The last half of the twentieth century in particular has witnessed a considerable acceleration of the integration of technological elements into the means of economic production and social life in general. The profound transformations that have taken place in the last few decades equally involve energy, transportation, construction, telecommunications, administration, medicine, pharmacy and agricultural sectors. The transformations are closely linked to techno-scientific developments in these various areas, and particularly to stunning developments in information and communication technologies. Yet the information society emerging in the contemporary period cannot be summed up simply as a series of technical mutations. This as yet unfinished global phenomenon, at once technological, economic, political and cultural, is in search of a social and a political project, references and reaffirmed values. We are faced with the task of building the world of networks on a cultural model incorporating clear collective choices, so that the principles of democracy are transferred on line - without loss - in the future.

The problem of restructuring the process of developing technical and scientific choices within an ethical perspective and democratic sphere arises in the context of this 'informationally-based' society. In a world full of doubt, technology becomes, or tends to become (despite an underlying suspicion to the contrary) the supreme reference of pragmatic and economic truth. Techno-scientific knowledge has a blinding effect by occultation in addition to factors such as purely and simply forgetting its possibilities, the viewpoint of universality and its meaning. Yet, short of admitting a total renunciation of reason, one cannot accept the social ideology at the source of the development of information technologies. This ideology consists in presenting the dynamics of technological conception and use as a sort of natural destiny, inexorably dragging humankind into a process of total rationalization accomplishing and annihilating modernity. The democracy that controlled politics has subsequently sought, and is still seeking, to discipline the economy. It has yet to control technological development. We should, first of all, understand that our

technological destiny is not *outside of us but in us*. Thus, technical *hubris* calls for the setting of limits which have to be defined by societies, in choosing technical means adapted to the ethical ends they pursue. As the French Senate report on the information society reminds us, information technologies have now taken such an importance that they can no longer involve a management that is delegated to technicians alone. Hence it is incumbent upon us, according to the demands of *democracy* and *ethics,* to question the capacity of power and decision-making systems to solve the problems posed by the development of the information society - without succumbing to the ideology of a social determinism. In our reflections, it is hence a matter of determining the place of ethics more exactly in a regulatory context, as well as the relationship between ethics, rationality and technical innovation.

Democracy in Question

The democracy that controlled politics has subsequently sought, and is still seeking, to discipline the economy. It has yet to control technological development and, first of all, understand that our technological destiny is not *outside of us but in us*. Thus, technical *hubris* calls for setting limits which have to be defined by societies, in choosing technical means adapted to the ethical ends they pursue. As the French Senate report on the information society reminds us, information technologies have now taken such an importance that they no longer involve a management that cannot be delegated to technicians alone. Hence it is incumbent on us to question the capacity of power and decision-making systems to solve the problems posed by the development of the information society according to the demands of *democracy* and *ethics* without succumbing to the ideology of a social determinism. In our reflections, it is hence a matter of determining the place of ethics more exactly in a regulatory context, as well as the relationship between ethics, rationality and technical innovation.

The legitimacy of computer technology

It may well be that information and communication technologies (ICT) are being invested with unrealistic hopes and expectations in comparison to their real possibilities. Furthermore, the phenomenon of globalization which seems to ignore borders and national jurisdictions underlines the urgency of political regulation and an ethical vision of the "global information society". One of the problems raised by the legitimisation of technological innovations is linked to an inability to connect the technical justifications with social justifications in a coherent synthesis, in order to establish "socio-technical" justifications. The problem comes from the fact that taking into account certain social justifications (or the absence of justifications...) is not inconsequential for the technology itself. Construction of the social legitimacy of computer technology faces the problem of how to escape from a circular justification inside the technical ideology, that is, one that reduces all questions to the context of technical interpretation alone and thereby finding itself ensured of encountering no obstacle to the propagation of its own logic. There is a need for openness to other modes of "extra-technical" and economical justifications, able to found its social use

on a reflective examination not only of the utility, but also of the impacts, meaning and value of technology for society. It seems important to be able to evaluate the political and social role and the legitimacy of communication technology, and particularly of one technology – computer science - whose rationality, at once calculating, instrumental and reductive, shows its incapacity for incorporating the demand for meaning so characteristic of ethics. Perhaps it is time to "re-politicise" the area of social studies conducted on the sciences and technology, that has hitherto been quite taken up with the critical movements (movements for scientific responsibility, appropriate technologies, workshops on sciences, ecology and feminism…). By institutionalising itself in the 80's and 90's, this area has distanced itself from scientific and militant actors, at the price of weakening its capacity for questioning. However, since the field of Sciences, Technology and Societies (STS) studies the "social construction of sciences and technologies", why not benefit from this analysis and try to problematise the liaison between democracy, technological innovation, economics and information society?

The information society, politics and the common good

Information technologies have already deeply modified the means of production of goods and services; Internet use facilitates a direct and generalized relationship among the planet's ever more numerous inhabitants. These technologies exert considerable effects on the economy because of minimal reproduction costs, and may also lead to an alternative development of techniques, to re-centering technologies on their users and to the appearance of "new planetary common goods". If we learn how to get the best out of it, this mutation may bring on a veritable inversion of values, competition for cooperation, a hierarchy of informational conviviality. We cannot content ourselves with accepting the ongoing transformations towards the dominant economism and the climax of the productivism of an energetic era, as we do now. If we go down that route the informational era will lose all of its power for building relationships between cultures, as well as its essential potential values. These particularly involve its sustainable regulatory capacity and preservation of the future, fostering learning and the exchange of knowledge for the benefit of all. These problems demanding responsibility concerning the social and cultural integration of ICT question the possibility and conditions of a democracy being able to regulate the information society and question its legitimacy. It is not enough that a technology - or rather a technological order, because technology is a system – should have passed through a "democratising" procedure for it to be described as "democratic". Once set up, such a technological order must be substantially compatible with, or even favour, social relations of a democratic type. Hence we should provide our democracies with a series of criteria and prospective tools, thus helping them evaluate the compatibility of a given technology with democratic values, as well as its desirability in terms of the projects at work in a society - which should also be discussed. In the days of worldwide "cyberspace" we have to worry about the nature of public space and general interest and, from this point of view, the information society, as a project and a reality, needing to be questioned. In the present context, we often observe that the "autonomy" of science and technology, and the enclosure of its institutions in

relation to the rest of society (once considered the conditions for production of truths on the world and generators of human progress) appear as obstacles to the constitution of knowledge and valid innovations, in a world becoming more uncertain and controversial. If there is no technological determinism, there is nothing but new possibilities we can transform into "opportunities". Concerning ICT, it is up to us to take advantage of the new potentialities for regulation, co-operation and human development, but also to struggle against their counter-productive sides (such as precariousness, flexibility, real time, short term dictatorship, digital divide, insignificance).

For a Technological Democracy?

How is democracy going to impose itself within the world, given technological questions and developments, facing the obstacles it encounters (technicist logic, profit logic, power logic…)? What kind of democracy are we going to fit the governance of technological innovation into, without restraining the technical questions to an expertise that develops itself separately from societies, whilst introducing the ethical questions? How can we allow a democratic and ethical regulation of the development of techno-communications in the context of a project such as the information society? These questions are so much more urgent and sensitive since the borderline is thin between the risks of instrumentalisation and new opportunities for the democratisation of technological decision-making, between closure and openness, between the thoughtless self-proclamation of general interest by elected representatives and the dictatorship of lobbying and particularisms, between limits and excesses.

Which Approaches for What Ethics?

We should first of all realize the failure of a method that consists of basing every ethical problem on a sociological analysis of the functioning of a techno-scientific system and decision-making, all of which is related to a unified and reconciled normative framework where scientific truth founds good ethics. The failure of such a methodology flows firstly from the application to the explanatory social theory of premises of epistemological relativism applied to the technoscientific sphere; and secondly, from instituting wishful thinking as a method of choice; morals and ethics thereby amounting to choosing in terms of the dominant social values. In fact it is only beyond the finite totality that each domain of legitimacies, specific criteria, relevancies and truths constitutes that any ethics whatever may be - including those for an information society. Techno-science is limited to playing with its own rules; anything beyond that is just playing with the results of that game – whose rules are set freely. It is only in being aware of this fact that techno-science and its actors can experience a relationship of responsibility and move from knowing to knowing more, arousal to a life where the self awakens from dogmatic slumbers. In contrast to objective and rational knowledge, ethics can only come from without, short of "trivializing" the individual, and this awareness is the only chance for ethics. This