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Global Information Ethics: The Importance of Being Environmentally Earnest

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Abstract

The paper argues that Information Ethics (IE) can provide a successful approach for coping with the challenges posed by our increasingly globalized reality. After a brief review of some of the most fundamental transformations brought about by the phenomenon of globalization, the article distinguishes between two ways of understanding Global Information Ethics, as an *ethics of global communication* or as a *global-information ethics*. It is then argued that cross-cultural, successful interactions among micro and macro agents call for a high level of successful communication, that the latter requires a shared *ontology* friendly towards the implementation of moral actions, and that this is provided by IE. There follows a brief account of IE and of the *ontic trust*, the hypothetical pact between all agents and patients presupposed by IE.

Keywords

Agents, Contractualism, Environmentalism, Globalization, Information Ethics, Patients.

1. Introduction: from Globalization to Information Ethics

Globalization is a phenomenon too complex even to sketch in this brief introduction.¹ So I hope that I shall be forgiven if I am rather casual about many features that would deserve full attention in another context. Here, I wish to highlight just six key transformations characterising the processes of globalization. I shall label them *contraction*, *expansion*, *porosity*, *hybridization*, *synchronization* and *correlation*. They provide the essential background for making sense of the thesis developed in the rest of the article, which is that Information Ethics can provide a successful approach for coping with the challenges posed by our increasingly globalized reality.

1.1 Contraction

The world has gone through alternating stages of globalization, growing and shrinking, for as long as humanity can remember. Here is a reminder: “[...] in some respects the world economy was more integrated in the late 19th century than it is today. [...] Capital markets, too, were well integrated. Only in the past few years, indeed, have international capital flows, relative to the size of the world economy, recovered to the levels of the few decades before the first world war.” (*The Economist* [December 18th 1997]). The truth is that, after each “globalization backlash” (think of the end of the Roman or British Empires), the world never really went back to its previous state. Rather, by moving two steps forward and one step back, some time towards the end of the last century the process of globalization reached a point of no return. Today, revolutions or the collapse of empires can never shrink the world again, short of the complete unravelling of human life as we know it. Globalization is here to stay.

Globalization has become irreversible mainly thanks to radical changes in world-wide transport and communications (Brandt and Henning [2002]). Atoms and bytes have been moving increasingly rapidly, frequently, cheaply, reliably and widely for the past fifty years or so. This dramatic acceleration has shortened the time required

¹ For a very synthetic but well-balanced and informed overview, I would recommend Held and McGrew [2001]. In their terminology, I am a subscriber to the transformationalist approach, according to which “[...] globalization does not simply denote a shift in the extensity or scale of social relations and activity. Much more significantly, argue the transformationalists, it also involves the spatial re-organization and re-articulation of economic, political, military and cultural power (see Held et al. [1999])”

for any interactions: economic exchanges, financial transactions, social relations, information flows, movements of people and so forth (Hodel et al. [1998]). And this acceleration has meant a more condensed life and a contracted physical space. Ours is a smaller world, in which one may multi-task fast enough to give and have the impression of leading parallel lives. We may regain a nineteenth-century sense of time and space only if one day we travel to Mars.

1.2 Expansion

Human space in the twenty-first century has not merely shrunk, though. ICTs have also created a new digital environment, which is constantly expanding and becoming progressively more diverse. Again, the origins of this global, transnational common space are old. They are to be found in the invention of recording and communication technologies that range from the alphabet to printing, from photography to television. But it is only in the last few decades that we have witnessed a vast and steady migration of human life to the other side of the screen. When you ask “Where were you?”, it is now normal and common to receive the answer “On line”. More than 5.5 million people throughout the world play *World of Warcraft*, currently the leading subscription-based MMORPG (massively multiplayer online role-playing game, <http://www.blizzard.com/press/060119.shtml>). Globalization also means the emergence of this sort of single virtual space, sharable in principle by anyone, any time, anywhere.

1.3 Porosity

An important relation between our contracting physical space and our expanding, virtual environment is that of *porosity*. Imagine living as a flat figure on the surface of an endless cylinder. You could travel on the surface of the cylinder as a two-dimensional space, but not through it. So in order to reach any other point on the cylinder, the best you could do would be to follow the shortest path (geodesic) on the cylindrical surface. The empty space inside the cylinder would be inconceivable, as a third dimension would. Imagine now that the surface became porous and hence that a third dimension were added. The geodesics would be revolutionized, for you could travel through the vacuum encircled by the cylinder and reach the other side, thus significantly shortening

your journeys. To use the rather apt vocabulary of surfing, you would be *tubing*: space would be curling over you, forming a “tube”, with you inside the cylindrical space. From a 2D perspective, you would literally come in and out of space. This sort of porosity characterizes the relation now between physical and virtual space. It is difficult to say where one is when one is “tubing”, but we know that we can travel through cyberspace to interact with other physical places in a way that would have been inconceivable only a few decades ago. Telepresence (Floridi [2005]) in our porous environment is an ordinary experience and this is also what globalization means.

1.4 Hybridization

During the last decade or so, we have become accustomed to conceptualize our life online as a mixture between an evolutionary adaptation of analogue/carbon-based agents to a digital/silicon-based environment, and a form of post-modern, neo-colonization of the latter by the former. This is probably a mistake. The threshold between *analogue-carbon-offline-here* and *digital-silicon-online-there* is fast becoming blurred, but this is as much to the advantage of the latter as it is of the former. Adapting Horace’s famous phrase, “captive cyberspace is conquering its victor”. ICTs are as much re-ontologising (that is, modifying the essential nature of) our world as they are creating new realities. The digital is spilling over into the analogue and merging with it. This recent phenomenon is variously known as “Ubiquitous Computing”, “Ambient Intelligence” or “The Internet of Things” (ITU report, November 2005 www.itu.int/internetofthings), and it is, or will soon be, the next stage in the digital revolution. In the (fast approaching) future, objects will be *ITentities* able to learn, advise and communicate with each other. “RoboticCookware” is already available (<http://www.vitacraft.com.nyud.net:8090/rfiq/home.html>); MP3 players will soon be able to recommend new music to their users by learning from the tunes they (the users, we had better be clear) enjoyed (<http://www.semanticaudio.com/>). Your next fridge (<http://www.lginternetfamily.co.uk/homenetwork.asp>) will inherit from the previous one your tastes and wishes, just as your new laptop can import your favourite settings from the old one; and it will interact with your new way of cooking and with the supermarket website, just as your laptop can talk to a printer or to another computer. We have all

known this in theory for some time; the difference is that it is now actually happening in our kitchen.

Globalization also means the emergence of this common, fully interactive and responsive environment of wireless, pervasive, distributed, *a2a* (anything to anything) information processes, that works *a4a* (anywhere for any time), in real time. We are probably the last generation to experience a clear difference between *onlife* and *online*.

1.5 Synchronization

In a world in which information and material flows are becoming so tightly integrated and enmeshed, it is not surprising to see global patterns emerging not only from well-orchestrated operations (consider the tedious experience of any launch of a major blockbuster, with interviews in magazines, discussions on TV programs, advertisements of merchandise and by-products throughout the world, special food products in supermarkets and fast-foods, etc.), but also inadvertently, as the result of the accidental synchronization of otherwise chaotic trends.

All of a sudden, the world reads the same novel, or wears the same kind of trousers, or listens to the same music, or eats the same sort of food, or is concerned about the same problems, or cherishes the same news, or is convinced that it has the same disease. Some of this need not be the effect of any plan by some Big Brother, a secret agency, a powerful multinational or any other *deus ex machina* that is scheming behind the curtains. After all, world-wide attention span is very limited and flimsy, and it is very hard to compete for it. The truth is that at least some global trends may merely arise from the constructive interference of waves of information that accidentally come into phase, and hence reinforce each other to the point of becoming global, through the casual and entirely contingent interaction of chaotic forces. It may happen with the stock markets or the fashion industry or dietary trends. The recurrent emergence of temporarily synchronized patterns of human behaviour, both transculturally and transnationally, is a clear sign of globalization, but not necessarily of masterminded organization. There is no intelligent plan, evil intention, autonomy or purposeful organization in the billion snow flakes that become an avalanche. Social group behaviour is acquiring a global meaning. The distributed power that generates

Wikipedia is the other side of the dark, mindless stupidity of millions of slaves of fashions and trends.

1.6 Correlation

Imagine a safety net, like the one used in a circus. If it is sufficiently tight and robust, the heavier the object that falls into it, the larger the area of the net that will be stretched, sending waves of vibration throughout the net. Globalization also refers to the emergence of a comparable net of correlations among agents all over the world, which is becoming so tight and sensitive that the time lag in the transmission of the effects of an event “dropping” on it is fast shortening, to the point that sometimes there is almost no distinction between what counts as local or remote. Global often means not everywhere but actually delocalized, and in a delocalized environment social friction is inevitable, as there is no more room for agents that allows for absorption of the effects of their decisions and actions. If anyone moves, the global boat rocks.

2. Globalising Ethics

If we consider now the profound transformations just sketched, it would be rather surprising if they did not have serious implications for our moral lives (see Weckert [2001] and Ess [2002]). In a reality that is more and more physically contracted, virtually expanded, porous, hybridized, synchronized and correlated, the very nature of moral interactions, and hence of their ethical analysis, is significantly altered. Innovative forms of agency are becoming possible; new values are developing and old ones are being reshaped; cultural and moral assumptions are ever more likely to come into contact when not into conflict; the very concepts of what constitutes our “natural” environment and our enhanced features as a biological species are changing; and unprecedented ethical challenges have arisen (a reference to the notorious problem of privacy is *de rigueur* here), just to mention some macroscopic transformations in which globalization factors, as sketched above, play an important role.

What sort of ethical reflection can help us to cope successfully with a world that is undergoing such dramatic changes? Local approaches are as satisfactory as burying one’s head in home values and traditions. The ethical discourse appears to be in need of

an upgrade to cope with a globalized world. Each ethical theory is called upon to justify its world-wide and cross-cultural suitability. This seems even more so if the theory in question seeks to address explicitly the new moral issues that arise from the digital revolution, as it is the case with Information Ethics (IE).

I shall say more about IE in the next two sections. The specific question that I wish to address is whether, in a world that is fast becoming more and more globalized, Information Ethics can provide a successful approach for dealing with its new challenges. I shall argue in favour of a positive answer. But to make my case, let me first clarify what *Global Information Ethics* may mean.

3. Global-Communication Ethics vs. Global-Information Ethics

There are at least two ways of understanding Global Information Ethics: as an *ethics of global communication* (Smith [2002]) or as a *global-information ethics* (Bynum and Rogerson [1996]) Since I shall concentrate only on the latter, let me briefly comment on the former first.

Global-Information Ethics, understood as an ethics of world-wide communication, may be seen as a commendable effort to foster all those informational conditions that facilitate participation, dialogue, negotiation and consensus-building practices among people, across cultures and through generations. It is an approach concerned with new and old problems, caused or exacerbated by global communications or affecting the flow of information. Global-Communication Ethics is therefore a continuation of policy by other means, and it does not have to be reduced to a mere gesture towards the importance of mutual respect and understanding (meeting people and talking to each other can hardly do any harm and often helps). It is, however, faced by the serious problem of providing its own justification. What sort of ethical principles of communication and information are to be privileged, and why? Is there any macroethics (e.g. some form of consequentialism or deontology or contractualism) that can rationally buttress a Global-Communication Ethics? And isn't any attempt at providing such a macroethics just another instance of "globalization" of some values and principles to the disadvantage of others? Without decent theorization, the risk is that we will reduce goodness to goodiness and transform the ethical discourse into some

generic, well-meant sermon. At the same time, a robust foundation for a Global-Communication Ethics may easily incur the problem of failing to respect and appreciate a plurality of diverse positions. The dilemma often seems to be left untouched, even when it is not overlooked. The good news is that it may be possible to overcome it by grounding a Global-Communication Ethics on a Global-Information Ethics.

4. Global-Information Ethics and the Problem of the Lion

If we look at the roots of the problem, it seems that,

i) in an increasingly globalized world, successful interactions among micro and macro agents belonging to different cultures call for a high level of successful communication; but

ii) successful, cross-cultural communications among agents require, in their turn, not only the classic three “e”s – *embodiment*, *embeddedness* and hence *experience* (a sense of “us-here-now”) – but also a shared *ontology* (more on this presently); and yet

iii) imposing a uniform ontology on all agents only seems to aggravate the problem, globalization becoming synonymous with ontological imperialism.

By “ontology” I do not mean to refer here to any metaphysical theory of being, of what there is or there isn’t, of why there is what there is, or of the ultimate nature of reality in itself. All this would require a form of epistemological realism (some confidence in some privileged access to the essential nature of things) that I do not hold, and that, fortunately, is not necessary to make my case. Rather, I am using “ontology” to cover the outcome of a variety of processes that allow an agent to appropriate (be successfully embedded in), semanticize (give meaning to and make sense of) and conceptualize (order, understand and explain) her environment. In simplified terms, one’s ontology is one’s world, that is, the world as it appears to, is experienced and interacted with, by the agent in question.²

² How an ontology is achieved and what sort of philosophical analysis is required to make sense of its formation is not a relevant matter in this context, but the interested reader may wish to see Floridi and Sanders [submitted].

Agents can talk to each others only if they can partake to some degree in a shared ontology anchored to a common reality to which they can all refer.³

Imagine two solipsistic minds, α and β , disembodied, unembedded and devoid of any experience. Suppose them living in two entirely different universes. Even if α and β could telepathically exchange their data, they could still not *communicate* with each other, for there would be absolutely nothing that would allow the receiver to interpret the sender. In fact, it would not even be clear whether any message was being exchanged at all.

The impossibility of communication between α and β is what Wittgenstein [2001] had in mind, I take it, when he wrote that “if a lion could talk, we could not understand him.” The statement is obviously false (because we share with lions a similar form of embeddedness and embodiment, and hence experiences like hunger or pain) if one fails to realize that the lion is only a place-holder to indicate an agent utterly and radically different from us, like our α and β . The lion is a Martian, someone you simply cannot talk to because it is “from another ontology”.⁴

From this perspective, the famous phrase *hic sunt leones* (here there are lions) acquires a new meaning. The phrase occurred on Roman maps to indicate unknown and unexplored regions beyond the southern, African borders of the empire.⁵ In a Wittgensteinian sense, the Romans were mapping the threshold beyond which no further communication was possible at all. They were drawing the limits of their ontology. What was beyond the border, the *locus* inhabited by the lions, was nothing, a non-place. Globalization has often meant that what is not inglobate simply isn't, i.e. fails to exist.

We can now formulate the difficulty confronting a Global-Information Ethics as *the problem of the lion*: cross-cultural communication, which is the necessary condition

³ More technically, this means that two agents can communicate only if they share at least some possible level of abstraction. On the method of abstraction see Floridi and Sanders [2004] and Floridi and Sanders [submitted].

⁴ If it took endless time and efforts to decipher the hieroglyphics, imagine what sense a extraterrestrial being could make of a message in a bottle like the plaque carried by the Pioneer spacecraft (http://spaceprojects.arc.nasa.gov/Space_Projects/pioneer/PN10&11.html)

⁵ Unfortunately, we do not have African maps drawn from the “lions’ perspective”. The Da Ming Hun Yi Tu, or Amalgamated Map of the Great Ming Empire, the oldest map of Africa known so far, dates back “only” to 1389.

for any further moral interaction, is possible only if the interlocutors partake in a common ontology. When Crusoe and Friday meet, after twenty five years of Crusoe's solitude, they can begin to communicate with each other only because they share the most basic ontology of life and death, food and shelter, fear and safety. Agents may be strangers to each other ("stranger" being an indexical qualification). They do not have to speak the same language, empathize or sympathize. But they do need to share at least some basic appropriation, semanticization and conceptualization of their common environment, as a minimal condition for the possibility of any further, moral interaction.

Can Information Ethics provide a solution to the problem of the lion? The short answer is yes; the long one is more complicated and requires a brief diversion, since it is now necessary to be more explicit about what I mean by Information Ethics.

5. Global Information-Ethics and its Advantages

Information Ethics⁶ is an *ontocentric, patient-oriented, ecological* macroethics. An intuitive way to unpack this definition is by comparing IE to other environmental approaches.

Biocentric ethics usually grounds its analysis of the moral standing of bio-entities and eco-systems on the intrinsic worthiness of *life* and the intrinsically negative value of *suffering*. It seeks to develop a patient-oriented ethics in which the "patient" may be not only a human being, but also any form of life. Indeed, Land Ethics extends the concept of patient to any component of the environment, thus coming close to the approach defended by Information Ethics. Any form of life is deemed to enjoy some essential proprieties or moral interests that deserve and demand to be respected, at least minimally if not absolutely, that is, in a possibly overridable sense, when contrasted to other interests. So biocentric ethics argues that the nature and well-being of the patient of any action constitute (at least partly) its moral standing and that the latter makes important claims on the interacting agent, claims that in principle ought to contribute to guiding the agent's ethical decisions and constraining the agent's moral behaviour. The

⁶ The IEG, a research group in Oxford, has developed a general interpretation of Information Ethics in a series of papers. Here I provide a summary based on Floridi [forthcoming]. The interested reader is invited to check the website of the group <http://web.comlab.ox.ac.uk/oucl/research/areas/ieg/>.

“receiver” of the action is placed at the core of the ethical discourse, as a centre of moral concern, while the “transmitter” of any moral action is moved to its periphery.

Now substitute “existence” for “life” and it should become clear what IE amounts to. IE is an ecological ethics that replaces *biocentrism* with *ontocentrism*. It suggests that there is something even more elemental than life, namely *being* – that is, the existence and flourishing of all entities and their global environment – and something more fundamental than suffering, namely *entropy*. The latter is most emphatically *not* the physicists’ concept of thermodynamic entropy. Entropy here refers to any kind of *destruction* or *corruption* of entities understood as informational objects (not as semantic information, take note), that is, any form of impoverishment of *being*, including *nothingness*, to phrase it more metaphysically.⁷

We are now ready to appreciate some of the main advantages offered by Information Ethics when it comes to the new challenges posed by globalization.

1) Embracing the new informational ontology.

Not only do we live in a world that is moving towards a common informational ontology, we also experience our environment and talk and make sense of our experiences in increasingly informational ways. *Information is the medium*. This calls for an ethics, like IE, that, by prioritising an informational ontology, may provide a valuable approach to decoding current moral phenomena and orienting our choices.

2) Sharing a minimal, horizontal, lite ontology.

There is a risk, by adopting an ontocentric perspective, as IE suggests, that one may be merely exchanging one form of “centrism” (American, Athenian, Bio, European, Greek, Male, Western, you-name-it) with just another, perhaps inadvertently, thus failing to acknowledge the ultimate complexity, diversity and fragility of the multicultural, ethical landscape with which one is interacting. We saw how the problem of the lion may become a dilemma. This justified concern, however, does not apply here because IE

⁷ *Destruction* is to be understood as the complete annihilation of the object in question, which ceases to exist; compare this to the process of “erasing” an entity irrevocably. *Corruption* is to be understood as a form of pollution or depletion of some of the properties of the object, which ceases to exist as that object and begins to exist as a different object minus the properties that have been corrupted or eliminated. This may be compared to a process degrading the integrity of the object in question.

advocates a *minimal* informational ontology, which is not only timely, as we have just seen, but also tolerant of, and interfaceable with, other local ontologies. Thick cultures with robust, vertical ontologies – i.e. deeply-seated, often irreconcilable, fundamental conceptions about human nature, the value and meaning of life, the nature of the universe and our place in it, society and its fair organization, religious beliefs, and so forth – can more easily interact with each other if they can share a lite, horizontal ontology as little committed to any particular *Weltanschauung* as possible. The identification of an absolute, ultimate, monistic ontology, capable of making all other ontologies merge, is just a myth, and a violent one at that. There is no such thing as a commitment-free position with respect to the way in which a variety of continuously changing agents appropriate, conceptualize and semanticize their environment. Yet the alternative cannot be some form of relativism. This is no longer sustainable in a globalized world in which choices, actions and events are delocalized. There simply is not enough room for “minding one’s own business” in a network in which the behaviour of each node may affect the behaviour of all nodes. The approach to be pursued seems rather to be along the lines of what IE proposes: respect for and tolerance towards diversity and pluralism and identification of a minimal common ontology, which does not try to be platform independent (i.e. absolute), but cross-platform (i.e. portable).

As in Queneau’s *Exercises in Style*, we need to be able to appreciate both the ninety-nine variations of the same story⁸ and the fact that it is after all the same story that is being recounted again and again. This plurality of narratives need not turn into a Babel of fragmented voices. It may well be a source of pluralism that enriches one’s ontology. More eyes simply see better and appreciate more angles, and a thousand languages can express semantic nuances that no global Esperanto may ever hope to grasp.

3) Informational Environmentalism.

⁸ On a crowded bus, a narrator observes a young man with a long neck in a strange hat yell at another man whom he claims is deliberately jostling him whenever anyone gets on or off the bus. The young man then sits down in a vacant seat. Two hours later the same narrator sees that same young man with another friend, who is suggesting that the young man have another button put on his overcoat.

The ontocentrism supported by IE means that at least some of the weight of the ethical interpretations may be carried by (outsourced to) the informational ontology shared by the agents, not only by the different cultural or intellectual traditions (vertical ontologies) to which they may belong. Two further advantages are that all agents, whether human, artificial, social or hybrid, may be able to share the same minimal ontology and conceptual vocabulary; and then that any agent may take into account ecological concerns that are not limited to the biosphere.

4) Identifying the sources and targets of moral interactions.

One of the serious obstacles in sharing an ontology is often how the sources and targets of moral interactions (including communication) are identified. The concept of person or human individual, and the corresponding features that are considered essential to his or her definition, might be central in some ontologies, marginal in others, and different in most. IE may help foster communication and fruitful interactions among different, thick, vertical ontologies by approaching the problem with conceptual tools that are less pre-committed. For when IE speaks of agents and patients, these are neutral elements in the ethical analysis that different cultures or macro-ethics may be able to appropriate, enrich and make more complex, depending on their conceptual requirements and orientations. It is like having an ontology of agency that is open source, and that anyone can adapt to its own proprietary *Weltanshaung*.

6. The Cost of a Global-Information Ethics: Postulating the Ontic Trust

It would be silly to conclude at this point that a Global-Information Ethics may provide an answer to any challenge posed by the various phenomena of globalization. This would be impossible. Of course, there will be many issues and difficulties that will require substantial extensions and adaptations of IE, of its methodology and of its principles. All I have tried to do is to convince the reader that such a great effort to apply IE as a global ethics would be fruitful and hence worth making.

It would be equally wrong to assume that the adoption of IE as a fruitful approach to global challenges may come at no conceptual cost. Every ethical approach

requires some concession on the part of those who decide to share it and IE is no exception.

The cost imposed by IE is summarizable in terms of the postulation of what I shall define as the *ontic trust* binding agents and patients. A straightforward way of clarifying the concept of ontic trust is by drawing an analogy with the concept of “social contract”.

Various forms of contractualism (in ethics) and contractarianism (in political philosophy) argue that moral obligation, the duty of political obedience, or the justice of social institutions, have their roots in, and gain their support from a so-called “social contract”. This may be a real, implicit or *merely hypothetical* agreement between the parties constituting a society (e.g. the people and the sovereign, the members of a community, or the individual and the state). The parties accept to agree to the terms of the contract and thus obtain some rights in exchange for some freedoms that, allegedly, they would enjoy in a hypothetical state of nature. The rights and responsibilities of the parties subscribing to the agreement are the terms of the social contract, whereas the society, state, group etc. is the entity created for the purpose of enforcing the agreement. Both rights and freedoms are not fixed and may vary, depending on the interpretation of the social contract.

Interpretations of the theory of the social contract tend to be highly (and often unknowingly) anthropocentric (the focus is only on human rational agents) and stress the coercive nature of the agreement. These two aspects are not characteristic of the concept of ontic trust, but the basic idea of a fundamental agreement between parties as a foundation of moral interactions is sensible. In the case of the ontic trust, it is transformed into a primeval, entirely hypothetical *pact*, logically predating the social contract, which all agents cannot but sign when they come into existence, and that is constantly renewed in successive generations.⁹ The sort of pact in question can be understood more precisely in terms of an actual trust.

⁹ There are important and profound ways of understanding this *Ur-pact* religiously, especially but not only in the Judeo-Christian tradition, where the parties involved are God and Israel or humanity, and their old or new *covenant* (διαθήκη) makes it easier to include environmental concerns and values otherwise overlooked from the strongly anthropocentric perspective *prima facie* endorsed by contemporary contractualism. However, it is not my intention to endorse or even draw on such sources. I am mentioning

Generally speaking, a trust in the English legal system is an entity in which someone (the trustee) holds and manages the former assets of a person (the trustor, or donor) for the benefit of certain persons or entities (the beneficiaries). Strictly speaking, nobody owns the assets, since the trustor has donated them, the trustee has only legal ownership and the beneficiary has only equitable ownership. Now, the logical form of this sort of agreement can be used to model the ontic trust, in the following way:

- the assets or “corpus” is represented by the world, including all existing agents and patients;
- the donors are all past and current *generations* of agents;
- the trustees are all current *individual* agents;
- the beneficiaries are all current and future *individual* agents and patients.

By coming into being, an agent is made possible thanks to the existence of other entities. It *is* therefore bound to all that already is both *unwillingly* and *inescapably*. It *should be* so also *caringly*. *Unwillingly*, because no agent wills itself into existence, though every agent can, in theory, will itself out of it. *Inescapably*, because the ontic bond may be broken by an agent only at the cost of ceasing to exist as an agent. Moral life does not begin with an act of freedom but it may end with one. *Caringly* because participation in reality by any entity, including an agent – that is, the fact that any entity is an expression of what exists – provides a right to existence and an invitation (not a duty) to respect and take care of other entities. The pact then involves no coercion, but a mutual relation of appreciation, gratitude and care, which is fostered by the recognition of the dependence of all entities on each other. A simple example may help to clarify further the meaning of the ontic trust.

Existence begins with a gift, even if possibly an unwanted one. A foetus will be initially only a beneficiary of the world. Once she is born and has become a full moral agent, she will be, as an individual, both a beneficiary and a trustee of the world. She will be in charge of taking care of the world, and, insofar as she is a member of the generation of living agents, she will also be a donor of the world. Once dead, she will

the point here in order to shed some light both on the origins of contractualism and on a possible way of understanding the onto-centric approach advocated by IE.

leave the world to other agents after her and thus become a member of the generation of donors. In short, the life of an agent becomes a journey from being only a beneficiary to being only a donor, passing through the stage of being a responsible trustee of the world. We begin our career of moral agents as strangers to the world; we should end it as friends of the world.

The obligations and responsibilities imposed by the ontic trust will vary depending on circumstances but, fundamentally, the expectation is that actions will be taken or avoided in view of the welfare of the whole world.

The ontic trust is what is postulated by the approach supported by IE. According to IE, the ethical discourse concerns any entity, understood informationally, that is, not only all persons, their cultivation, well-being and social interactions, not only animals, plants and their proper natural life, but also anything that exists, from buildings and other artefacts to rivers and sand. Indeed, according to IE, nothing is too humble to deserve no respect at all. In this way, IE brings to ultimate completion the process of enlargement of the concept of what may count as a centre of a (no matter how minimal) moral claim, which now includes every instance of *being* understood informationally, no matter whether physically implemented or not. IE holds that every entity, as an expression of *being*, has a dignity, constituted by its mode of existence and essence (the collection of all the elementary proprieties that constitute it for what it is), which deserve to be respected (at least in a minimal and overridable sense) and hence place moral claims on the interacting agent and ought to contribute to guiding and constraining his ethical decisions and behaviour whenever possible. The ontic trust (and the corresponding ontological equality principle among entities) means that any form of reality (any instance of information/*being*), simply by the fact of *being* what it is, enjoys a minimal, initial, overridable, equal right to exist and develop in a way which is appropriate to its nature.¹⁰

The acceptance of the ontic trust requires a disinterested judgement of the moral situation from an objective perspective, i.e. a perspective which is as non-anthropocentric as possible. Moral behaviour is less likely without this epistemic virtue.

¹⁰ In the history of philosophy, a similar view can be found advocated by Stoic and Neoplatonic philosophers, and by Spinoza.

The ontic trust is respected whenever actions are impartial, universal and “caring” towards the world.

7. Conclusion

One of the objections that is sometimes made against IE is that of being too abstract or theoretical to be of much use when human agents are confronted by very concrete and applied challenges (Siponen [2004]). Unfortunately, this is an obvious misunderstanding. Imagine someone who, being presented with the declaration of human rights, were to complain that it is too general and inapplicable to solve the ethical problems she is facing in a specific situation, say in dealing with a particular case of cyberstalking in the company that employs her. This would be rather out of place. The suspicion is that some impatience with conceptual explorations may betray a lack of understanding of how profound the revolution we are undergoing is, and hence how radical the rethinking of our ethical approaches and principles may need to be in order to cope with it. IE is certainly not the declaration of human rights, but it seeks to obtain a level of generality purporting to provide a foundation for more applied and case-oriented analyses. So the question is not whether IE is too abstract – good foundations for the structure one may wish to see being built inevitably lie well below the surface – but whether it will succeed in providing the robust framework within which practical issues of moral concern may be more easily identified, clarified and solved. I agree that it is in its actual applications that IE, as a Global Ethics for our information society, will or will not qualify as a useful approach; yet building on the foundation provided by IE is a serious challenge, it cannot be an objection.

References

- Brandt, D., and Henning, K. 2002, "Information and Communication Technologies: Perspectives and Their Impact on Society", *AI & Society*, 16(3), 210-223.
- Bynum, T. W., and Rogerson, S. 1996, "Global Information Ethics: Introduction and Overview", *Science and Engineering Ethics*, 2(2), 131-136.
- Ess, C. 2002, "Computer-Mediated Colonization, the Renaissance, and Educational Imperatives for an Intercultural Global Village", *Ethics and Information Technology*, 4(1), 11-22.
- Floridi, L. 2005, "Presence: From Epistemic Failure to Successful Observability", *Presence: Teleoperators and Virtual Environments*, 14(6), 656-667.
- Floridi, L. forthcoming, "Information Ethics" in *Moral Philosophy and Information Technology*, edited by Jeroen van den Hoven and John Weckert (Cambridge: Cambridge University Press),
- Floridi, L., and Sanders, J. W. 2004, "The Method of Abstraction" in *Yearbook of the Artificial. Nature, Culture and Technology. Models in Contemporary Sciences*, edited by M. Negrotti (Bern: Peter Lang), 177-220.
- Floridi, L., and Sanders, J. W. submitted, "Levelism and the Method of Abstraction".
- Held, D., and McGrew, A. 2001, "Globalization" in *Oxford Companion to Politics of the World*, edited by Joel Krieger (Oxford - New York: Oxford University Press), also available online at <http://www.polity.co.uk/global/globocp.htm>.
- Held, D., McGrew, A., Goldblatt, D., and Perraton, J. 1999, *Global Transformations : Politics, Economics and Culture* (Cambridge: Polity Press).
- Hodel, T. B., Holderegger, A., and Lüthi, A. 1998, "Ethical Guidelines for a Networked World under Construction", *Journal of Business Ethics*, 17(9 - 10), 1057-1071.
- Siponen, M. 2004, "A Pragmatic Evaluation of the Theory of Information Ethics", *Ethics and Information Technology*, 6(4), 279 - 290.
- Smith, M. M. 2002, "Global Information Ethics: A Mandate for Professional Education", in *Proceedings of the 68th IFLA Council and General Conference*, Glasgow. Also available online at www.ifla.org/IV/ifla68/papers/056-093e.pdf.
- The Economist* December 18th 1997, "1897 and 1997 - the Century the Earth Stood Still".
- Weckert, J. 2001, "Computer Ethics: Future Directions", *Ethics and Information Technology*, 3(2), 93-96.
- Wittgenstein, L. 2001, *Philosophical Investigations : The German Text with a Revised English Translation* 3rd. (Oxford: Blackwell).