

Gonçalo Jorge Morais Costa and Nuno Sotero Alves Silva:

## Informational Existentialism! Will Information Ethics Shape Our Cultures?

### Abstract

The evolution of philosophy and physics seem to acknowledge that “informational existentialism” will be possible. Therefore, this contribution aims to comprehend if Heidegger existentialism can enrich the bond between information theory and the intercultural dialogue as regards to information. Even so, an important query arises: why specifically Heidegger’s philosophy? Because it highlights an intercultural dialogue namely with East Asian and with Arabic philosophy, which is also consistent with the debate concerning the potential value and contribution of information theory to the intercultural dialogue. Therefore, this manuscript intends to understand if information is shaping worldwide cultures as a consequence of its existence.

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### Author:

PhD Student Gonçalo Jorge Morais da Costa:

- Centre for Computing and Social Responsibility, De Montfort University, Leicester, United Kingdom
- ☎ + 351 - 91 - 90 55 965, ✉ [goncaloj@netc.pt](mailto:goncaloj@netc.pt), 🌐 [www.goncalocosta.com](http://www.goncalocosta.com)
- Relevant publications:
  - Costa, Gonçalo (Ed.): *Handbook of ethical issues and social dilemmas in knowledge management: Organizational innovation*. IGI Global, Hershey, forthcoming 2010.
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PhD Student Nuno Sotero Alves Silva

- Centre for Computing and Social Responsibility, De Montfort University, Leicester, United Kingdom
- ☎ + 351 - 96 - 25 76 514, ✉ [nsas@lis.ulsiada.pt](mailto:nsas@lis.ulsiada.pt), 🌐 <http://www.ccsr.cse.dmu.ac.uk/>
- Relevant publications:
  - Silva, Nuno, Rogerson, Simon and Stahl, Bernd Carsten: Ethicultural sensitivity in e-learning: Discussing Lusíada empirical findings. In Arias-Oliva, M. *et al.* (Eds.), *ETHICOMP 2010*, University of Rovira i Virgili, Tarragona, 2010, 500-511.
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## Introduction

The organic and interdisciplinary evolution of science in nowadays, namely in physics and philosophy, resumes a theoretical "combined" approach as regards to the perception of information. For that, the authors discuss the concept of "informational existentialism", which intends to realize if Heidegger existentialism can enhance the intercultural dialogue that information theory has been promoting about the impact of information in worldwide cultures.

Despite the prior claim, the authors' shed some light pertaining to a crucial remark of this manuscript: the idea under scrutiny come to mind during ETHICOMP 2008 keynote speech of Professors' Terrell Ward Bynum and Simon Rogerson. To them your deepest consideration, in spite of not knowing how they enlightened us!

Although, it is important to summarize that speech: the Copernican Revolution was refined when authors' like Newton, Einstein and Heisenberg related matter and energy as key components of all "objects". Furthermore, more recently the Information Revolution has acknowledged that these "objects" entail data flows, because the universe is made out of information (Bynum and Rogerson 2008). From this assumption it is possible to observe an analogous awareness among physics and philosophy regarding world conceptual explanation (e.g. Lloyd in physics, and Floridi in philosophy), which the word "informational" resumes.

On the other hand, the authors' contribution reveals the philosophical movement of existentialism. This movement outlooks human existence as having a set of underlying themes and characteristics, such as anxiety, dread, freedom, awareness of death, and consciousness of existing. Existentialism is also an outlook, or a perspective, on life that pursues the question of the meaning of life or the meaning of existence. This assumption exhibits a paramount importance (e.g. Corey 2003), because informational flows that ICT promulgate and "exist" are shaping our lives, as well as our cultures.

According to Górnjak-Kocikowska (2007) ICT is the most human technology, and Wiener (1954) had already claimed the core importance of information in human life, so it is possible to acknowledge an "informational existentialism". As a result, information theory has been playing an extremely important role in recognize the ethical challenges of these information fluxes through an enhancement of

intercultural dialogue, which contradicts the argument of Stahl (2008) concerning the non-universality of information theory. Nonetheless, this argument was refuted by Luciano Floridi in its work *Information ethics: A reappraisal*.

In spite of the previous claims the authors' of this manuscript believe that Heidegger existentialism can deepen the link between information theory and the intercultural dialogue as regards to information impact in our lives. For that, in order to promote a feasible analysis the authors' acknowledge the following issues: a defence for choosing Heidegger's existentialism, the importance of ontology, linking the theoretical dimensions (information, information ethics theory and Heidegger's existentialism), and finally discussing the conceptual overlap ("informational existentialism").

## Information

### Concept

Information is a polymorphic phenomenon and a polysemantic concept (Beijer 2009), which resumes dissimilar insights: mathematical, economical, biological, semantical, philosophical and ethical. Therefore, the overall contribution of these research disciplines depends on the level of abstraction adopted, cluster of requirements and desiderata orientating a theory (Floridi 2005).

Etymologically information refers to "inform", meaning "to give form to, put into form or shape" (Oxford English Dictionary 2008). Despite this argument, the ancient Greek word *εἶδος* ("eidos") denoted the ideal identity or spirit of something in Plato's philosophy. Hence, symbolically "information" represents not only a communication, but equally a conviction or a choice. Likewise, the Latin verb *in-formo*, which connects the terms *in* and *forma*, suggests form or shape as well as represent, sketch, and delineate (Crane 2001).

### Perspectives

A complete absence of semantically content highlights Claude Shannon's theory (1948), in which information is characterized as uncertainty. Following Martin (1995), Shannon endeavours to perceive information as a "thing" (material analysis). As a result, this tangible dimension of information engages an expected conclusion: information exhibits "commodity" characteristics. For that reason, it is

possible to acknowledge information as a “raw material” that will be transformed during production stage (Cash, MacFarlan and McKenney 1992). This analogy illustrates the idea that information can be significantly diverse according to its function or, future function within the economical process.

Regarding a biological perspective, the authors’ plead Lange and Lapp (2007) despite the work of Jonas Salk and Jonathan Salk (1981) act like praxis. Salk and Salk distinct three key features that universal evolution and increasing complexity outlines in systems: physical and biological (being each of them characterised by new emergent and vital properties). The appearance of a novel third system resumes the intrinsic property of both previous systems.

Finally, it is possible to intrinsically correlate semantics, philosophy and ethics approach to information, because as Lakoff and Johnson (1980) argue information is a precious fluid. These authors linked the features of ordinary liquids like water and to less tangible but nevertheless appealing notions like *chi*. Although, Kornai (2008) had combined this perception with semantics, and philosophy, leading to a conclusion: information as a fluid engages identity, sentience, volition, and reverence.

## Information Ethics Theory

### Key remarks

Floridi and his colleagues (1999; 2004) developed the information ethics theory, which refers that everything is “informational” objects or processes, because all entities are described as clusters of data, that is, as information objects. More precisely, any existing entity will be a discrete, self-contained, encapsulated package containing because:

- the appropriate data structures, which constitute the nature of the entity in question, represents the state of the object, its unique identity and attributes;
- a collection of operations, functions, or procedures, which are activated by various interactions or stimuli (that is, messages received from other objects or changes within itself), and correspondingly define how the object behaves or reacts to them.

Despite this level abstraction and fundamental contribution to philosophy and science in general,

Tavani (2007) presents some interesting comments to Floridi’s work regarding ontological issues: if the theory distinguishes informational from mental privacy; as well as, descriptive and normative aspects of privacy.

### Intercultural dialogue

The importance and influence of information theory has been so profound that is promoting intercultural dialogue between Western and Eastern societies (Collste 2007), which authors like Ess (2006) or, Hongladarom (2008) have attempted to demonstrate. Nonetheless, as pointed out in *The intercultural ethics agenda from the point of view of a moral objectivist* (Himma 2008), is necessary to draw the attention for moral objectivism, because it provides a superior foundation for the normative debate for intercultural information ethics. Additionally, is vital to boost this intercultural dialogue not only pertaining to privacy, but a broader discussion encompassing all issues that information theory enables, as a consequence of its core definition: everything is “informational” objects or processes.

## Existentialism

### Overview

Existentialism is a 20<sup>th</sup> century philosophy that resumes the analysis of existence and how individuals spend a lifetime changing their essence or nature. Therefore, this philosophical perception captures a first-person or subjective reflection with reference to ultimate questions: free will, choice, and personal responsibility (Sanderson 2003).

Clearly, existentialism is typically divergent to rationalist and empiricist doctrines that comprehend the universe as a determined, disciplined structure, in which rationality and natural laws govern all beings and guide human activity (Earnshaw 2006). Despite avoiding rationality, a majority of existentialists feel that rational lucidity is advantageous wherever achievable. A potential justification for this assumption relies on the contribution of Crowell (2004): conventionally, philosophers have related existence as significance for the latter “instantiation”, which prescribes an individual’s way of life, its judgment about meaning and value of existence, which characterizes ancient Western and Eastern philosophy.

Hence, existentialism does not encompass a good life as wealth and pleasure, social values and structured control, as well as accept what is. This is consistent with Corey (2003) assumptions regarding the purpose of existentialism in a group setting: enable members to become truthful to themselves; widening their perspectives on themselves and the world around them; and, clarifying what gives meaning to their present and future life. So, these intentions resume quite well ICT ethical implications of "informational existentialism".

### Heidegger philosophy

For Heidegger "being" entails a "fundamental ontology", which is prior to any epistemology because epistemology is grounded in ontology. According to Knight (2007), Heidegger acknowledges a pre-Socratic assumption of "being" (*sein*), namely in *Parmenides*. "Being" resumes the underlying reality; and, it heralds all other assumptions. Without a proper perception of "being" no proper knowledge is possible, so is beyond each entity and every potential features pertaining to any entity (*dasein*).

For White (1996), temporality describes this relationship in a generic sense, because content is given by a peculiar historical time frame. This author claims that Heidegger establishes an analogous significance about the outlook of the temporality of "being", to which the concept "what-is-absent" (*abwesen*) imposes neutrality regarding temporality. Therefore, appropriation (*ereignis*) resumes a "matter of certain relations and connections" (White 1996, p. 159).

As a consequence, the study of individuals' expresses dissimilar conceptions of what it means to "be" moral. Following Benoit (2010), Heidegger's thought does not allow a distinction among subject and object, and therefore ethics entails a derivative notion: history of philosophy as metaphysics. Despite the arising critic that Heidegger Cartesian and epistemological model hypothesis fails, because humans are not autonomous subjects in an object-filled world trying to understand it (Esfeld 2001); as well as, the non-deductive or systematic form that "exegesis of poetry or the more aphoristic fragments of the pre-Socratic philosophers" (MacIntyre 1967, p. 543) present.

Nevertheless, the truth is that Martin Heidegger is a futuristic thinker due to its unmistakable mystical ring (Caputo 1986). Still following Caputo (1986, p. xvii), "Heidegger even claims that his thinking is beyond the regions of philosophy".

## Discussion

### Why Heidegger?

This subsection aims to highlight an overall argument that emphasizes the first clues with reference to Heidegger's philosophy for enriching the intercultural dialogue. To produce such evidence it is vital to debate: (i) universality of ethics; (ii) to demonstrate Heidegger's intercultural characteristic.

According to Stahl (2008) universality refers to the scope, range and applicability of an ethical theory, as well as the ethical scheme of influencing individuals' to recognize or to pursue it. If the reader kept in mind the aim of this manuscript, that Heidegger's existentialism will be an additional component of information ethics theory, then universality is accomplished because the foundation continues to be information ethics theory (Floridi 2008).

The intercultural characteristic of Heidegger is realistic, namely the relationship with East Asian and Arabic thinking. In *A dialogue on language between a Japanese and an inquirer* is possible to establish a parallel between his work and Zen Buddhism, as well as Taoism (Imamichi 2004). Or, in *The phenomenological quest between Avicenna and Heidegger* to recognize his influence in Arabic philosophy (El-Bizri 2000).

However, Heidegger's prudence against the "inauthenticity" that arises from an inactive and uncritical recognition about our cultural identity, clearly justifies an intercultural dialogue. Moreover, Ma and van Brakel (2006) resume this intercultural dialogue of Heidegger through three dimensions: in Asian and Arabic cultures the word "nothing" is well explicit, so the word for "being" is crucial; personal experience is transcendent rather than through words or rational creeds. Consequently, it provides an account of planetary unification on the basis of different traditions. In conclusion, Heidegger philosophy is transcultural (more than intercultural) (Capurro 2008).

### Ontology- the praxis!

Prior to the tri-dimensional analysis of the "informational existentialism" it is essential to approach the concept of ontology! Ontology is often defined as the branch of metaphysics that traditionally discusses the overall existence of entities (Oxford English Dictionary 2008). Therefore, human ontology has its origins in the work of Heidegger which is based upon Cartesian grounds.

In addition, in computer and information science entails a data framework that symbolizes a set of concepts within a domain and its relationships (Siricharoen 2009). Nevertheless to grant a consistent argument the authors plead Gruber's (1995) definition: a set of meanings of formal and informal vocabulary. This is consistent with the bias that cultural heritage information imposes due to implicit concepts and relations (Doerr et al 2003). Moreover, as individual intuitive ontology has a direct effect in respective cultural representations (Boyer 2001). Therefore, is cultural ontology neutral regarding Heidegger's temporality?

### Analytical dimensions

In order to promote a reliable debate with reference to "informational existentialism" a tri-dimensional analysis will be under scrutiny: (1) information vs. information ethics theory; (2) information vs. Heidegger's existentialism; and, (3) information ethics theory vs. Heidegger's existentialism.

Moving forward, it is time to frame the analytical dimensions:

1. information ethics theory fairly replies the ethical challenges that information embraces at a traditional ontological level (categorization and relationships). Even so, a Floridi (2009) claim is that digital and informational ontology are distinct concepts, despite both entail "modes of presentation" of "being". Hitherto, this refreshing contribution seems to neglect the ontological boundaries of informal vocabulary, which derives from individual intuitive digital ontology (Eldred 2009);
2. Heidegger's existentialism provides the missing link: the existential! This is consistent with the argument about the ontology of cultural objects (Thomasson, 2005), because these are divided into material aspect of their existence and superimposed meanings and functions. In fact, Web 2.0 enables individual cultural ontology because images and texts represent perceptual and other bodily experiences, which is consistent with virtual anthropological property of human beings (Zwingenberger 2004), as well as our need to perpetuate ourselves through a future distributed existence, even at a cognitive level (Goertzel 2008), despite the historical difference between analogical and digital. The defence the for these as-

sumptions relies on the work of Heidegger itself: (i) "world" is a "meaning structure of experience" through which "being" is known (Fennberg 2005); (ii); "body" resumes the physical (*körper*), as well as the phenomenal body (*leib*), however our consciousness about our entire bodies is not separate (Zwart 2009); (iii) so, the recognition of the role of cultural practices and tool-use arises from thinking of "being" (White 1996);

3. Heidegger's existentialism will enhance the intercultural dialogue that information ethics theory has began. For that, the remaining clues about Heidegger's philosophy are crucial to proclaim this hypothesis: (i) the different temporal matrix by Heidegger resumes a combination of linear (Western) and heteromorphic (Eastern) time (White 1996), which clearly resumes the informational flows that ICT enables; (ii) Eastern and Arabic influences in Heidegger's seem to resist manipulation and replication and its bound to Western objectivity (White 1996), which individual digital objects imply; (iii) Capurro (2006) demonstrates that Heidegger's metaphysics unlocks the limitations of Floridi's information ethics theory regarding digital ontology.

### "Informational existentialism"- an overlap?

The concept of existential authenticity is well known throughout several disciplines, despite being rich and complex. In ICT case, the medium for extending human body has definitely construct metaphors about our existential condition, consciousness and experiences (Davies 2002), through a "subjective source of inter-subjective ground of experience" (Csordas 1999, p. 181).

Moreover, Stelarc remarks body as immaterial concerning mode and level of social interaction between people. In *From psycho-body to cyber-systems*, Stelarc argues that: "where the body becomes the object of physical and technical experiments in order to discover its limitations" and where "electronic space becomes a medium of action rather information" (Stelarc 2005). This scenario is clearly representative of personal digital heritage (individual digital objects creation), which allows a constant digital screening of our existence. Therefore, our "manifold of experiences" enables: the ability for self-reflection; individuals' to become honest to themselves; wide their perceptions on themselves and the world around them; and, clarify

temporality. Summing up, it emerges "informational existentialism".

Nevertheless, what signifies "informational existentialism"? Is the virtual extension of human existence through digital personal objects appropriation, which allows questioning our experiences, attitudes and values transversally to temporality. Hence, through "informational existentialism" the level of obscurity concerning Heidegger's concept of appropriation ("being" and "time") will diminish.

However, several questions arise that future work will demand:

1. Which are the cognitive differences concerning individual digital objects?
2. Will access limit or enhance (equity) individual digital objects creation? If yes, at how extent may restrict our informational existence?
3. Which will be the existential limit: philosophical or technological?
4. And, if that limit enables a deepen level of self-reflection concerning free will, choice, and personal responsibility.

## Conclusion

Given the overall argument of this manuscript, the authors argue that the research hypothesis, "informational existentialism", is perfectly justifiable considering Heidegger's philosophy and the enrichment of the intercultural dialogue that information ethics theory has been promoting. Yet, it is compulsory to reframe the discussion concerning information objects ontology and its human dimension, as well as information in humanities.

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