GENERAL CONTRIBUTIONS

An acritical philosophy of information

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The project of an acritical philosophy of information is nothing but a defense of the necessity for the philosophical in our cognitive, epistemic, and informational endeavours, and simultaneously a manner of refusing the formalist, criticist or ideological marginalisation of the philosophical. This underlines the fact that there are many things that the disciplinary discourses do not or cannot know, not even when these discourses accumulate into a huge pile of knowledges.

This project poses many challenges both to Information Science and to philosophy. Only when Information Science is understood as an interscience that operates in a multifaceted and interconceptual, and even interdiscursive way, as it is suggested here, it will be able to comply with the challenges. In the fulfilment of this task it needs to be accompanied by a philosophical approach that will take it beyond the merely critical and linear approach to scientific work.

For this reason an acritical philosophical approach is proposed that will be characterised by multiple, complex and inventive styles of thinking, organised by a compositional rather than an oppositional inspiration. This initiative is carried by the conviction that Information Science will hereby be enabled to make contributions to significant knowledge inventions that may bring about a better world.

Key Words: Library Theory; Information Science Theory;

Introduction

Reflection on knowledge, information, the sciences, philosophy and literature always takes place in a biospheric, technological, economic, and cultural environment, from which it draws its resources and on which it will produce its effects. This situation of intellectual activity in a complex and multilayered environment can be referred to as knowledge ecology. This term refers to the network of relations by which human activity is linked to a natural environment that both constrains it and is altered by it, and by which specific activities such as intellectual interventions or interferences take place in a dynamic, situational relation to sociocultural contexts.

The production and forms of knowledge or scientific developments and the character and role of cognitive activity, have neither existence nor meaning outside of their relation to this techno-economico-cultural environment. This contextualisation is itself a form of knowledge, designated in different sites and situations by terms such as ecology, context theory, cybernetic holism, complex adaptive systems, or actor-network theory. The project of an acritical philosophy of information is nothing but a defence of the necessity for the philosophical in our cognitive, epistemic and informational endeavours, and simultaneously a manner of refusing the aestheticist, formalist or ideological marginalisation of the philosophical. This underlines the fact that there are many things that the disciplinary discourses do not or cannot know, not even when these discourses accumulate into one huge pile of knowledges.

A further perspective on these domains, sites and situations that lie beyond disciplinary exercises and that call for another kind of investigation and reflection has been detected by the architect Bernard Tschumi, who emphasises the importance of taking cognisance of the outside of any discipline and its possible impact on the discipline. Martin Heidegger's appeal for the practising of "adequate reflection" links up with the view of Tschumi that there is something outside the generally accepted status of scientific endeavours; he refers to this reflection as "the courage to make the truth of our own presuppositions and the realm of our own goals into the things that most deserve to be called in question". Presuppositions, assumptions, prejudices and personal preferences play an immensely important role in what will eventually be considered to be scientific knowledge. Paul Ricoeur (1991:465) emphasises something similar in relation to language and poetry: "My philosophical project is to show how human language is inventive despite the objective limits and codes which govern it, to reveal the diversity and potentiality of language which the erosion of everyday, conditioned by technocratic and political [and scientific and professional] interests, never ceases to obscure". He sketches the responsibility of the philosopher as follows: "to preserve the varieties of the uses of language and the polarities between these different kinds of language, ranging from science through political and practical language and

ordinary language, let us say poetry. And ordinary language mediating between poetry, on one hand, and scientific language, on the other hand" (Ricoeur 1991:448). We find an emphasis this time on the dimensions of language that lie outside the disciplinary languages, but most certainly affecting these languages.

Hans-Georg Gadamer, using statistics as an example, shows how the hermeneutical dimension encompasses the entire procedure of science. He points out that science always operates under definite conditions of methodological abstraction, and that the successes of modern sciences rest on the fact that other possibilities for questioning are concealed by this abstraction. In the process truth becomes distorted and even obfuscated. Other facts would begin to speak if other questions were asked; these questions he considers to be hermeneutic questions. Other questions might generate other meanings of the facts, and other consequences. Here he invites the decisive function of fantasy or imagination to elaborate and connect facts, meanings, and consequences (Gadamer 1976:11-13).

It should be clear from these few remarks that not only is the philosophical always with us, but that there exists a central and fundamentally important place for it. But the philosophical, or philosophy, in what sense? There are so many different approaches.

Philosophy as an act of thinking

Philosophy is about human thinking and how human thinking finds expression and fulfils an orientational function in many situations. Thinking remains very probably the most special capacity humans possess – all humans. Thinking, in as far as it is a noetic endeavour, teaches us the very art of living (Morin 2004:151-159; cf also Morin's studies on Ideas, 1991). Morin writes: "Our most profound lack is the lack of wisdom". We need to revisit the idea of wisdom we inherited from the thought of antiquity, but have lost in modern times.

"The work of thinking well" to which Pascal called us includes reflection: self-examination, self-critique that struggles constantly against internal illusions and lying to oneself, as well as the questioning of assumptions, prejudices and personal preferences. At the same time it entails the avoidance of unilateral ideas, mutilated conceptions and views regarding important matters, and the search to conceive of human complexity. The main challenge posed to our unique capacity to think is, then, Think well, since this is our highest moral principle!

As such, philosophy is the human effort to delve deep, as deeply as possible, into the spiritual and mental activities of humans in all situations, not only in matters of life but also in matters of science and knowledge, matters of human creativity and inventiveness and human faults, failure and despair, out of which humans are inspired and motivated to act. Never are authentic philosophical investigations, although sometimes very critical, meant to be destructive. They support humans and they support and guide human endeavours like science, culture and practices.

Philosophy does not take anything for granted. It questions everything, in a search for truth and truthfulness. Humans reflect on their lives, their goals, their convictions, their beliefs. Serious reflection does not hesitate to delve deep into the origins and foundations that direct and guide these issues. Humans articulate; that is, they put into words what they discover in these processes. In other words, they try to give meaning to what they discover. This meaning-giving activity is called conceptualisation. Working with concepts, analysing concepts, organising and reorganising concepts comprise the work or activity of the philosopher or of the philosophical in us.

Philosophy does this in a structured and focused way. Deleuze and Guattari (1994) can help us enormously here. We will briefly return to them at a later stage. No science, no writing, no thinking can happen without concepts. But concepts are relational, they relate all the time to domains other than the domains of their immediate activity. Concepts relate and connect the history of thought, history of science and history of human life. As such, when it is true to its nature, philosophy is much more of a compositional than an oppositional activity (Stiegler 2003). Its critical function is a secondary and not an original function. It starts with and emerges out of a sense of wonder, rather than an enthusiasm for critique and criticism. For Michel Serres, as he expressed it in an interview with Bruno Latour (1995:126), knowledge has two modes: "The concern with verification and the burdens it requires, but also risk taking, the production of newness, the multiplicity of found objects – in short, inventiveness. It's better to avoid diminishing the second aspect in favour of the first. Begin with one, continue with the other." This takes us beyond mere criticism. In this way philosophy can contribute in an immense way to the inventive endeavours of the sciences, especially when it is embraced for what it is worth and if philosophy itself lives up to its true expectations.

Philosophy and science

Does this general understanding of philosophical activity relate to something like a scientific discipline, like Information Science, for example? As it delves into the depths of human reality it delves equally deeply into the depths of scientific reality! The intriguing phenomenon of paradigms demonstrates exactly how deeply scientific reality is seated and anchored in human reality. We must never forget that the reality of science is part of human reality. And as such it is and

will always be affected by the depths of this reality. Beliefs, convictions, assumptions, prejudices that colour our very lives do cover the endeavours we are involved in. Science undeniably forms one of these involvements.

The surroundings of science, the milieu in which scientific work proceeds, are equally important. That is why the ecology of science and of scientific knowledge is similarly of central importance (cf Rainer Kuhlen 2004). Ideological, political, socio-cultural and religious issues play a significant role in the construction of the sciences. Isabelle Stengers (2000) suggests, for example, that we might interpret the tension between scientific objectivity and belief as a necessary part of science, central to the practices invented and reinvented by scientists.

The terminology of science, its vocabulary and its language, requires philosophical and conceptual accompaniment. Diverse dimensions of language fall outside the disciplinary discourses but exercise considerable influence on the discourses of science. The scientist must be careful not to take possession and claim sole proprietorship of terminology and concepts derived from the history of thought as if they are creations of science. This is highlighted in the work by Sokal and Bricmont (1998) about the use and abuse of concepts and the debate between Debray and Bricmont on the same theme (2003). Human rationality in all its forms and in all its ambiguities forms the basis of the debate. Another example is the work of Isabelle Stengers (1997), who makes a case for the concept of complexity that transcends the conventional boundaries of scientific discourse and that clearly exposes the risks of scientific thinking.

Philosophy and Information Science

The uniqueness of Information Science does not exempt it from the above remarks. As a matter of fact it reinforces the above in relation to the informational context and milieu and therefore calls for a unique kind of philosophical approach and input. If Information Science is understood as an Interscience, then the suggestion by Gernot Wersig (1992; 1993) about the role of interconcepts makes a good deal of sense and needs to be carefully explored. The new situation of knowledge as elaborated by him requires a new type of science as well. Information Science is not to be looked at as a classical discipline, but as a prototype of this new kind of science. It stands to reason that this calls for a new kind of thinking, because knowledge, science and thinking are always interdependent. It is here that his suggestions about "interconcepts" and the "weaver-bird approach" of knitting concepts, insights, terms and fragments of information together into sensible entities are relevant. Examples of such interconcepts are knowledge, image, technology, culture, reality, ideas. "They are concepts of strong self-evidence, of an apparent familiarity, they penetrate a lot of disciplines and common discourses, but themselves do not have a scientific domicile." They are used everywhere without a clear understanding of them in all their manifestations and embodiments. There is a need for these interconcepts to be rethought and reformulated in order to reach a new understanding of them in terms of their origins and comprehensive manifestations. Obviously such an initiative calls for a philosophical approach of a certain kind.

Bougnoux (1993), in his consideration of philosophical approaches and their value for Information Science and practice, draws our attention to a number of important issues that should be thoroughly explored for relevance:

A. The origins of human reason. Is reason innate or a product of exchanges and the sum of arguments? To be reasonable is to be nothing else but engaged in communication. No human competence can actualise itself outside the context of discursive activities. This inevitably leads to pragmatics (Bougnoux 1991:22).

B. Pragmatics. In affirming the primacy of relations, pragmatics tends to further undermine the transcendence or innateness of reason. Peirce affirms this and in this affirmation underlines one of the major issues of Popper's epistemology. Latour emphasises that there is nothing in the scientific initiative that opposes in any essential way the incentives of politics. Scientific activity contains a kind of moral obligation: opening or communication. To be reasonable means dialogue in a decentred space, anarchistic in the strong sense.

C. Writing. Human reason is partly related to its utensils or tools, of which writing is the first, and writing should be related to another very crucial term: *logocentrism*. Logocentrism refers to the pretensions of logos (at the same time reason, language and calculation) to be central to human intellectual endeavours. Logocentrism mistrusts all mediations and dreams of immediacy, or of presence to the self of subjects in all domains. It constitutes at the same time the cornerstone of a critical approach, an approach which is questioned in this article. The question of writing is one of technics, and the question of technics remains central to our studies.

D. Imagination. In opposition to reason, imagination remains a matter of real concern for philosophers. Imagination cannot be eliminated from the heart of human intellectual endeavours. There are simply too

many things or matters that reason and rationality in the strict sense cannot really account for. The free circulation of information becomes important here and should be related to the activity of informatisation.

E. The general connection between disciplines. Amongst the numerous themes that are of interest to both Information Science and philosophy is this theme of the general interconnectedness of disciplines, which actually means the general connection between knowledges. Note, for instance, the previous remarks on interconcepts that establish a straightforward connection. Our knowledges run in circles and strengthen one another all the time. A solidarity exists between knowledges. But they can also interfere strongly in one another's affairs.

F. What is science for? Purpose and goal fall outside the strictly scientific field when science is understood as the investigation of a certain object or objects by means of, or with the help of, specific appropriate methods. The method and object of physics, for example, falls outside the domain of questions about what physics may be for and what can be done with it.

These are all philosophical issues pertaining to Information Science in a special way, re-emphasied by Bougnoux (1998) in a later publication. In view of these non-scientific, more specifically philosophical issues, which are always present in our deliberations of what science is, it is remarkable how many people disregard philosophy as if it is not the most important thing in our lives and with how much ease this is done. Aristotle, the great Greek philosopher, was very explicit about this: either one should philosophise or one should not philosophise, but if one should not philosophise then this can happen only in the name of philosophy. Nothing is more amusing than the tactics of the supposed enemies of philosophy who introduce grandiose philosophical arguments in order to show that there is no philosophy.

Modes of thinking

Among the greatest enemies of the philosophical endeavour are the diversity of trends and schools of philosophy and the animosity between them. The presence of philosophical activity in the sciences often reflects a kind of sympathy for one school or another. What the different schools have in common is at least the shared enthusiasm for thinking as a human activity. This is probably the most significant aspect of philosophy and can be applied everywhere. The pursuit of thinking, rather than a specific philosophical trend, aims to avoid domination by any specific school. It wants to profit from the energies of human thought that are released from the diverse schools. The focus would then be rather on thought itself and how it should be applied, than on schools or trends.

We should opt for a mode or modes of thinking that will be able to respond constructively to the interscientific, polymorphic, multifaceted nature of Information Science and its engagements. There are many different ways in which we can explain thinking, some more adequate than others. The kind of emphasis we put on thinking will determine the direction thinking is going to take regarding many issues, such as knowledge, method, science and ethics. There will be vast implications for fields like knowledge management (functionalistic or complexity driven); research methods (qualitative and quantitative, but also the notion of a method that will accommodate what cannot be classified under quality and quantity); the character of science as a strictly objectifying activity or of science as a dynamic process which takes account of both necessity and chance, of both crystalline hardness and smoky suppleness and subtlety; and of ethics in terms of inner conviction and interhuman engagement, rather than numerous lists of powerless ethical codes with which people have to comply.

In order to comply with my earlier description of Information Science as an interscience (De Beer 2005), I wish to explore a possible approach to thinking that will facilitate this science. Certainly the sciences need their facilitators, especially in terms of the philosophical. Most of the time they do it themselves: Atlan, Prigogine, Ekeland, Heisenberg, and many others. It is my conviction that thinking, understood in terms of the critical/acritical debate, the multifaceted nature of information, the complex nature of these issues in general, and the challenge to invent alternatives for oneself as well as for communities, leads us to describe appropriate thinking in the following terms: this mode of thinking is or should be acritical, complex, multiple, and inventive.

These terms are irreductionistic or antireductionistic. They will enable us to get a sensible and honest picture of the relevance of thinking and of relevant thinking of a special kind at the heart of Information Science as a special kind of science, and they will be carefully explored.

The suggestion of Bernard Stiegler (2003) serves as point of departure for this exploration, when he emphasises the importance of thinking in compositional and not oppositional terms. Oppositional thinking is typical of critical thinking, and is characterised by exclusion, rejection, comparison, and linearity. Although this mode of thinking is useful in many

respects and fulfils important functions, it remains inadequate when it comes to the fullness and comprehensiveness of reality and knowledges about reality. A way to cope with this is to think in compositional terms. This mode of thinking can be clarified by breaking it down into acritical, complex, multiple and inventive thinking. Built into the capacity of compositional thinking is the ability to find something different, unexpected and new. This is what happens most of the time in scientific inventions (Stengers 1997; 2000).

Acritical thinking

There is a world of difference between an acritical approach to thinking and a critical approach, a difference which extends to the outcomes of their practical applictions. The first is fertile and productive and the second sterile, repetitive and counterproductive. The one is inspirational and the other debilitating.

Michel Serres is probably, in the context of information philosophy, the most important exponent of the acritical approach. His Hermes series of five volumes provides ample demonstration and illustration of this, explicitly merely from his exegesis of the terms he uses for this purpose: communication, distribution, transference, translation, the north-west passage (interdisciplinary passages between the sciences). None of these terms can really be confined to the boundaries of a critical approach. With the help of each, Michel Serres invites us to share with him his journeys into the dynamic and open spaces of knowledges and information developments (See De Beer 1990 for an elaboration of these terms).

Complex thinking

The introduction to complex thinking by Edgar Morin (1990:15-24) is more than adequate, and the way he relates this to information and knowledge is highly significant. In a discussion of blind intelligence Morin emphasises that error, ignorance and blindness progress simultaneously with our knowledges. We have to take radical cognisance of developments in this regard. The profound cause of error does not lie in factual errors (false perceptions) or in logical errors (incoherence) but in the way in which knowledge is organised into systems of ideas (theories and ideologies) without our recognising and apprehending the complexity of the real. What is inevitably created is a one-dimensional vision that leads to pathology of knowledge and blind intelligence.

Our disjunctions, abstractions and reductions create "a paradigm of simplification". Such a strategy eliminates the philosophical, and in this process prohibits those in the sciences from exercising self-knowledge, self-reflection and even the ability to conceive of themselves scientifically. The inevitable consequence is an effort to simplify the complex as well. Measurement and calculation are the only things that count. Simplified thinking is unable to see the connection between the one and the multiple, and diversity is thereby destroyed. The consequence: blind intelligence. Blind intelligence destroys totalities and togetherness; it isolates all objects from their milieu and environment. A new, massive and productive ignorance is created, together with an inability to conceive complexity. Hence the challenge to contemplate the necessity for complex thinking.

What is complexity? In the first place it is like a tissue, binding together heterogeneous constituent issues. It is, in effect, a tissue of the events, actions, interactions, retroactions, determinations, risks, that all together constitute our world. But then the notion of complexity confronts us with the mad, the disorderly, the ambiguous, and the uncertain. The challenge to thinking is to continuously link the simple and the complex in order to avoid and eliminate the sickness of inadequate dogmatistic theories, the pathology of reason manifested in a partial, unilateral system of ideas that does not acknowledge that part of reality is irrational and not measurable, that rationality has to enter into constant dialogue with the irrational instead of denying it and wishing it away. Thinking of this order can be considered to be complex thinking. (Cf also Morin 1990b:304-309 for the commandments of complexity).

Multiple thinking

This and no other kind of thinking can really comply with the dynamic and multifaceted character of information. Deleuze and Guattari (1994) demonstrate this in a unique way in their discussions of the works of Marcel Proust, Friedrich Nietzsche and the notion of representation. According to them, binary logic and bi-univocal relations still dominate psychoanalysis (cf the tree of delirium in Freud), linguistics and structuralism, and even information theory. This domination certainly also covers the field of knowledge in terms of the tree of knowledge. Binary logic is the intellectual reality of the root-tree and must be linked to classical thought, which requires a strong principal unity that includes the linear unity of the word, or even of language. The language of Joyce, with its multiple roots, in effect shatters the linear unity of the word. Nietzsche's aphorisms shatter the linear unity of knowledge.

This limited binary thought has never understood multiplicity. In the domain of multiplicity the principles of connection and heterogeneity rule. The image of the rhizome is used: any point on a rhizome can be connected with any other and may lead to disorder or chaos (See Deleuze and Guattari 1983). This is very different from the image of the tree or root, which fixes a point and thus an order, and confines us to a sphere of discourse that still implies modes of

arrangement and particular social types of power. A rhizome never ceases to connect semiotic chains, organisations of power, and events in the arts, sciences and social struggles. This keenness to connect characterises the multiple or multiplicity. The implications for knowledges are self-evident and dramatic. A strategy of multiple thinking must be cultivated in order to comply with the challenges of the multiple and to respond to them by processes of connecting and combination. Out of the connections and combinations emerges the new. Inventions become a reality.

Inventive thinking

This mode of thinking is arguably the culmination of the fruitful encounter between human thinking and knowledge for action, which is information. Bernard Tschumi (1998), in his characterisation of inventive thinking, fixes our attention on the enormous possibilities of the combination, in so many unexpected ways, of issues that are not in an obvious way connectable, and demonstrates how new knowledges can emerge from this. He encourages cultural inventions. His architectural plans show the structures of relations that produce inventions. This certainly includes human relations. Inventions tend to occur when unrelated areas, ideas, and forms come together in unexpected ways. This entails the dislocation of conventions by using concepts from diverse discursive fields that connect any particular field with its outside. He deliberately subverts the coherence and self-assured stability of a composition and promotes instability and programmatic madness, since madness and meaning together constitute, according to him, inventive possibilities.

Attention should be given to the fruitful ways in which computer developments do facilitate precisely these different kinds of thinking, although this presentation has no room for such attention. The contribution of Pierre Levy (1993) in this regard is particularly significant. He elaborates the idea of the future of human thinking in the information age, or the age of technologies of iIntelligence.

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