

# **Individual ethics and knowledge management: arising conflicts**

By Gonçalo Jorge Morais da Costa, Mary Prior and Simon Rogerson

## **Abstract**

Knowledge management engages a strong personal dimension that enables a possible success or not regarding an organizational knowledge management project. Plus, it engages unforeseen ethical and moral dilemmas at an individual level.

Therefore, the aim of this paper is to link philosophical systems and the knowledge management process allowing a comparison between Eastern and Western, regarding the ethical and moral dilemmas that arise at an individual level concerning knowledge workers. Moreover, we will demonstrate that such challenges are similar, and that Floridi's information theory may provide important answers to that personal dimension of knowledge management.

## **Introduction**

The quest for obtaining knowledge and perceive its nature is not original. This effort is old as the history of human thought. According to Plato, knowledge is justified true belief. In his work Protagoras, Plato pleads: "knowledge is the food of the soul" (Jowett, 1899). However, other philosophers' as Descartes or Kant have made also attempts to define it. Todd for example, describes knowledge as "human knowing in all its forms ... competencies, experiences, expertise's, skills, talents, wisdom, thoughts, ideas, intuitions, commitments, innovations, practices and imaginations ... the stuff of the human mind. Knowledge resides in the user and not in the collection." (Todd, 2001: 5). For Mattison (2000), knowledge comes from experience that we have reflected on, made sense of and tested. Knowledge is a kind of sticky residue insight our minds. Therefore, knowledge is gained through experience, and not just any (raw) experience. It is usually experience that has been tested, reflected upon and judged against other experiences that are also available. It also comes about as a result of thinking your way through a problem and what we remember when we first started taking that route of thought. And finally, Williams (2003) describes the paradoxical "biological" nature of knowledge as both a thing and a flow.

Since its first appearance, knowledge has been described and classified into many forms and dimensions of existence depending on the characteristics of knowledge and the aspects analyzed. In general knowledge can be divided into two main dimensions: the soft and the hard (Kought and Zander, 1992). The hard dimension of knowledge, considered as explicit knowledge, exists in the "easy to see and use" forms like information system, documents and databases. Such characteristic allows that the hard dimension of knowledge can be transmitted from one to another without loss of meaning if the receivers and the senders are both familiar with the context of knowledge. The other dimension of knowledge, the soft, knowledge only exists in the human minds, in the heads of people or the cognition of humans. This knowledge is created when individuals interact with each other and with the environment around them. This kind of knowledge is very difficult to clearly define and is something that is unconscious. That personal dimension of knowledge is pointed out by Polanyi (1966): we know more than we can tell. Therefore, the aim of this research is to debate the unforeseen ethical and moral dilemmas regarding personal knowledge management, through out a comparison between Eastern and Western philosophical systems.

As a concluding remark, we acknowledge the arguments concerning the paper structure that will allow such debate: the concept of knowledge management; knowledge management and ethics; Eastern philosophical systems; the Japanese school; Western philosophical systems; the American school; and, finally the philosophical argument.

## **Development**

### **Knowledge management**

Managing and enabling knowledge is the key to success in our economy and society, (Harth et al, 2005). So, research in knowledge management has gained tremendous pace since its inception in the last decade as evidenced by the extensive existing literature and its further growth (Ponzi and Koenig, 2002). Much of the literature approaches the discussion how knowledge it is transformed and flows through the organization; or whether knowledge relies on individuals or the organization; the link between organizational culture and knowledge; and, the technological perspective (Brown and Duguid, 1991; Nonaka, 1994). However, the current *status quo* of the knowledge society imposes a discussion considering the ethical and moral dilemmas (see for example: Costa and Silva, 2005; 2007).

Considering that knowledge is fundamentally created by individuals (Nonaka and Takeuchi, 1995) is crucial to support individuals in their personal knowledge management. According to Brelade and Harman (2003) knowledge management is the acquisition and use of resources to create an environment in which information is accessible to individuals and in which individuals acquire, share and use that information to develop their own knowledge and are encouraged and enabled to apply their knowledge for the benefit of the organisation.

Moreover, knowledge management is a multi-faceted phenomenon and integrates dissimilar inter-linked processes (Egbu, Botterill and Bates, 2001).

In conclusion, the purpose is to create a thriving working and learning environment that fosters the continuous creation, aggregation, use and reuse of both personal and organizational knowledge in the pursuit of a new business value. Therefore, such realities have been approached by the existent schools of thought: Japanese (Nonaka, 1994; 1997; 1998; 2002); European (Sveiby, 1997; Roos et al, 1998); and, American (Alavi and Leidner, 2001; Nikolaos et al., 2005), in accordance to their cultural and societal environment as Cardoso, Gomes and Rebelo (2003) advocate.

### **Knowledge management and ethics**

The 1996 OECD report on “The Knowledge-based Economy” is an endeavour to establish a terminology. In such report is recognized the role of knowledge and technology in economic growth; however, the knowledge society encompasses some ethical dilemmas that were firstly addressed into the 1999 World Bank report, “World Development Report on Knowledge and Development” (World Bank, 1999). The World Bank report distinguishes two types of knowledge: knowledge about attributes leading to information problems and knowledge about technology, including knowledge gaps. “Typically, developing countries have less of this know-how than industrial countries, and the poor have less than the non-poor. These unequal distributions across and within countries are called as knowledge gaps (World Bank, 1999).

However, our research question aims not to debate the societal ethical dilemmas, but the individual ones that arise through out the knowledge management process: creation, use and sharing by individuals. Knowledge workers produce new information by combining an existing body of knowledge (Kidd, 1994). Ideas are formed in the minds of individuals and are developed in social interactions (Nonaka, 1994). Therefore, cognitive adequacy is a general requirement to balance the personal effort and perceived personal benefit, which means individuals need to perceived value into the knowledge process (Ford, 2005), and consequently in all its phases: creation, use and sharing.

Literature acknowledges that trust is based upon commonly shared values and norms, so the need for individual transparency is a reality. But how can we define transparency? The word “transparent” comes from the Latin word “*transparere*,” a combination of *trans-* (“through”) and *parere* (“come in sight, appear”). Relating the etymological foundation of the word

transparency to our introduction regarding corporate social responsibility illustrates the view that transparency is a “state of mind” (Costa, Prior and Rogerson, 2007). Moreover, with the advent of ICT transparency becomes *mediated transparency*, enhancing exponentially the ethical challenges, and therefore to obtain such transparency Floridi’s information theory may provide important answers. However, what ethical dilemmas arise at an individual level? Such dilemmas are: justice and knowledge creation and sharing; justice and fair compensation; justice and fair protection and retribution; justice and recognition of human dignity and autonomy (see Rawls, 1971).

#### Justice and knowledge creation and sharing

Based on contributive justice, it is argued that employees have a moral obligation not only to be productive (more specifically regarding the creation of knowledge) in an organization but also to share the knowledge that benefits the organization and contribute to the intellectual commons. However, personal knowledge may be excluded from manageable knowledge. For example, KPMG defines intellectual property as not just patents, trade marks, copyrights, database rights and other pure intellectual property, but other forms of articulated knowledge, such as business processes, methodologies and know how (KPMG, 2002). At the same time, however, contributive justice implies that organizations also have a moral responsibility to create an atmosphere where knowledge workers can be productive and have the opportunity to not only create, but also share their knowledge and learn from one another.

#### Justice and fair compensation

Knowledge creators, as well as, those who share knowledge must be compensated in a fair and just manner. However, it does not necessarily imply equal compensation to all. In recognizing the principle of merit, justice allows different compensation to different individuals. Financial compensation is too limited, and therefore for example Davenport and Prusak (1998) suggest some form of official recognition of someone in the company as an expert in a certain field.

#### Justice and fair protection and retribution

In focusing on the social control of harm to the organization, justice also implies some form of retribution and enforcement when it comes to the creation, sharing and using of knowledge in an organization. Those who violate the organizations accepted values and the clear articulation of what constitutes non-conforming behaviour regarding the creation, sharing and utilizing of knowledge should be fairly punished.

#### Justice and recognition of human dignity and autonomy

Fundamental to any theory of justice and its application to various situations is the recognition of human dignity and autonomy. This normally translates into the recognition and protection of human rights. Miller (1999) points out that a central element in any theory of justice will be an account of basic rights of citizens. Based on the discussion in this paper the authors propose the following five knowledge related human rights:

- the right to life- as an individual and social right it includes the right to security and safety and is specifically applicable to the responsibility of organizations to make known information that can harm society (Ryan, 2002);
- the right to the freedom of expression of ideas- this right correlates with the obligations of knowledge workers to create knowledge as well as the duty of organizations to create an atmosphere which is conducive to knowledge creation (du Plessis, Britz and Davel, 2007);

- the right of access to those ideas- this right correlates with the responsibility of knowledge workers to share their ideas with colleagues. However, the transfer of knowledge engages the value dimension personal effort versus benefit as stated by Ford (2005);
- the right to protect and control expressed ideas- this right affirms the right of knowledge creators to be fairly compensated for their work, as well as, the obligation of organizations to fairly protect their economic moral interests (Blyth, 2005);
- the right to privacy recognizes the autonomy and dignity of individuals- as an individual's private attribute, organizational programs that aim to forcibly develop knowledge-sharing cultures could violate individual privacy rights, and therefore the human rights (Rogerson, 1998; Baskerville and Dulipovici, 2006). Plus, the arguments proposing or justifying a right to privacy must be taken in account (see Stahl, 2007).

Moreover, the following step of our analysis is to perceive the link between philosophical systems and knowledge management: the concept of *ba* is clearly based on the Eastern philosophical systems; the American school engages ICT as a relevant mean to achieve knowledge management, which translates a more individualistic perception of life in accordance to the Western philosophical systems.

## **Eastern philosophical systems**

### **Buddhism**

Buddhist philosophy comprises the essence of Buddha's teachings, through its four noble truths (Gyatso, 1985): truth of suffering; truth of the cause of suffering; the truth of the end of suffering; and, the truth of the path that leads to the end of suffering. A simplest explanation is: suffering exists; it has a cause; it has an end; and it has a cause to bring about its end. The notion of suffering is not intended to convey a negative world view, but rather, a pragmatic perspective that deals with the world as it is, and attempts to rectify it. The concept of pleasure is not denied, but acknowledged as fleeting. Pursuit of pleasure can only continue what is ultimately an unquenchable thirst. The same logic belies an understanding of happiness. In the end, only aging, sickness, and death are certain and unavoidable.

The four noble truths are a contingency plan for mankind deal with the existing suffering-suffering of a physical kind, or of a mental nature. The first truth identifies the presence of suffering. The second truth, on the other hand, seeks to determine the cause of suffering (Harvey, 1990). In Buddhism, desire and ignorance lie at the root of suffering. By desire, Buddhists refer to craving pleasure, material goods, and immortality, all of which are wants that can never be satisfied. As a result, desiring them can only bring suffering. Ignorance, in comparison, relates to not seeing the world as it actually is. Without the capacity for mental concentration and insight, the mind is left undeveloped, unable to grasp the true nature of things. Vices, such as greed, envy, hatred and anger, derive from this ignorance.

The third noble truth, the truth of the end of suffering, has dual meaning, suggesting either the end of suffering in this life, on earth, or in the spiritual life, through achieving Nirvana (Harvey, 1990). When one has achieved Nirvana, which is a transcendent state free from suffering and our worldly cycle of birth and rebirth, spiritual enlightenment has been reached.

The fourth noble truth charts the method for attaining the end of suffering, known to Buddhists as the noble eightfold path. The steps of such process are: right understanding; right thought; right speech; right action; right livelihood; right effort; right mindfulness; and, right concentration. Moreover, there are three themes into which the path is divided: good moral conduct (understanding, thought, speech); meditation and mental development (action, livelihood, effort), and wisdom or insight (mindfulness and concentration) (Gyatso, 1985).

## Confucianism

Confucius' views are presented as a coherent and consistent system demonstrating several philosophical concerns which do not conflict so much as they complement one another. These complimentary sets of concerns can be categorized into four groups (Ames and Rosemont Jr., 1998): theodicy; harmonious order; moral force; and, self-cultivation.

Theodicy should be seen as the general framework for understanding of Confucius' philosophical concerns. Here arises the concept of *tian*, which is slightly changed through the reading of Confucius' work. As Graham (1989) noted, Confucius seems to be of two minds about *tian*. Sometimes, he is convinced that enjoys the personal protection and sanction of *tian*; however, in other situations he seems caught in the throes of existential despair. *Tian* seems to participate in functions of "fate" and "nature", as well as, those of "deity" (Eno, 1990). What remains consistent throughout Confucius' discourses on *tian* is his threefold assumption about this extra human, absolute power in the universe: its alignment with moral goodness; its dependence on human agents to actualize its will; and the variable, unpredictable nature of its associations with mortal actors.

Regarding harmonious order, the dependence of *tian* upon human agents to put its will into practice helps account for Confucius' insistence on moral, political, social, and even religious activism (Berthrong, 1991). At any rate, much of Confucius' teaching is directed toward the maintenance of three interlocking kinds of order: aesthetic; moral; and, social.

The instrument for effecting and emulating all three is *li* (ritual propriety). Labelling it "aesthetic" might appear to demean or trivialize it, but to draw this conclusion is to fail to reflect on the peculiar way in which many Western thinkers tend to devalue the aesthetic. Moral force or *de* can be characterized as similar to *tian*, because is heavily freighted with a long train of cultural and religious baggage, extending far back into the mists of early Chinese history (Fingarette, 1972). *De* is a quality of the successful ruler, because it rules at the pleasure of *tian*, which for Confucius is resolutely allied with morality, and to which he attributes his own inner *de*. *De* is therefore the virtue of the successful ruler, without which he could not rule at all. Confucius' vision of order unites aesthetic concerns for harmony and symmetry (*li*) with moral force (*de*) in pursuit of social goals: a well-ordered family; a well-ordered state; and, a well-ordered world. Such an aesthetic, moral, and social program begins at home, with the cultivation of the individual.

At last, the self-cultivation principle demonstrates two types of persons which are opposed to one another- not in terms of basic potential, because Confucius pleads that all human beings are alike at birth-, but in terms of developed potential (Munro, 1969). These are the *junzi* (literally, "lord's son" or "gentleman"), and the *xiaoren* ("small person"). The *junzi* is the person who always manifests the quality of *ren* in his person and the displays the quality of *yi* in his actions. The character for *ren* is composed of two graphic elements, one representing a human being and the other representing the number two. Based on this, one often hears that *ren* means "how two people should treat one another" (Boodberg, 1979). Lau (1992), still pointed out that *ren* is an attribute of agents, while *yi* is an attribute of actions. This helps to make clear the conceptual links between *li*, *de*, and the *junzi*.

## Japanese school

Nonaka takes a starting point in a discussion on the epistemological and ontological dimension of knowledge. The former dimension refers to the distinction of tacit and explicit knowledge whereas the latter dimension, the ontological dimension, which refers to the "social interaction between individual that share and develop knowledge" (Nonaka, 1994:15). Tacit knowledge is defined as something that cannot be codified, formulated and expressed. Explicit knowledge is tangible, clearly stated and can therefore be recorded and stored. Polanyi's perception of tacit knowledge relates to his ideas about the function of knowledge.

The use of knowledge is expressed in a person's ability to mobilize it into action or collection of new knowledge. However, it is important to note that whilst Nonaka describes knowledge as two dichotomies while Polanyi view these as dimensions of knowledge and not as either or (Brown and Duguid, 2001). From an ontological point of view Nonaka builds on the belief that all knowledge is personal, but such knowledge can be made available and shared with others in an organization. In their discussion on how to investigate organizational learning, Easterby-Smith et al (2000) make a distinction between macro and micro perspectives: macro perspective organizations are viewed as the primary unit of analysis; whereas the micro perspective views individuals as the primary unit of analysis.

Knowledge is further described as context specific, depending on time and space and that without context knowledge would only be information. It is argued that "the prime mover in the process of organizational knowledge creation is the individual. Individuals accumulate tacit knowledge through direct hands-on experience" (Nonaka, 1994: 21). In a later article Nonaka (2002) writes that instead of merely solving problems, organizations create and define problems, develop and apply new knowledge to solve the problems, and then further develop new knowledge through the action of problem solving. The organization is not merely an information processing machine, but an entity that creates knowledge through action and interaction. It is further argued that micro (individual) and macro (organization/environment) interact and that changes occur at both levels.

The organizational knowledge creation process model (SECI) consists of four modes of knowledge conversion in organizations (Nonaka, 1994): from tacit knowledge to tacit knowledge (socialization); from explicit to explicit (combination); from tacit to explicit (externalization); from explicit to tacit (internalization).

Nonaka describes the process as converting new tacit knowledge through shared experiences. Externalization aims at articulating tacit knowledge into explicit concepts. In this process "knowledge is crystallized, thus allowing it to be shared by others, and it becomes the basis for new knowledge." (Nonaka, 2000: 9). Furthermore, combination aims at combining different entities of explicit knowledge, where the process of converting explicit knowledge into more complex and systematic sets of explicit knowledge. Finally, internalization aims at embodying explicit knowledge into tacit knowledge, which it is described as closely related to learning by doing.

Organizational knowledge creation occurs when all four modes of knowledge creation are managed to form a continual cycle or spiral (Nonaka, 1994). In the SECI model the spiral illustrates the relationship between these two dimensions of knowledge creation. The knowledge creation process is initiated by the enlargement of the individuals' knowledge within the organization where personal subjective knowledge is validated, connected to and synthesized with others' knowledge (Nonaka and Takeuchi, 1995). Particular and tentative knowledge created from an individual's values and experiences is shared and justified by other members of the organization. Experience sharing, the fundamental source of tacit knowledge, is fundamental in order to be able to build mutual trust and through a continuous dialogue tacit knowledge may be articulated to explicit knowledge (Nonaka, 1991).

Nonaka and Toyama (2003: 2) stress that "knowledge is created in the spiral that goes through seemingly antithetical concepts such as order and chaos, micro and macro, part and whole, mind and body, tacit and explicit, self and other, deduction and induction, and creativity and efficiency. [...] the key to understanding the knowledge-creating process is dialectic thinking and acting, which transcends and synthesizes such contradictions. Synthesis is not compromise. Rather, it is the integration of opposing aspects through a dynamic process of dialogue and practice". So, *ba*, we can best understand as a shared context in which knowledge is shared, created and utilized. The concept originates from a Japanese philosopher Kitaro Nishida (1970) and was developed further by Shimizu (1995). *Ba* further emphasizes

the importance of context in knowledge creation, because this is the place where information is interpreted to become knowledge. *Ba* provides the vital context where information becomes knowledge and where new knowledge is created. It is a recognition that individuals and organizations do not operate in a vacuum; they exist in an environment that impacts them.

## **Western philosophical systems**

### Consequentialism

Consequentialism in his actual usage seems to be used as a family resemblance, with the purpose to refer any descendant of classic utilitarianism that remains close enough to its ancestor in the important respects. Of course, different philosophers see unlike aspects as the important ones. Hence, there is no agreement on which theories count as consequentialist under this definition. To resolve this vagueness, we need to determine which of the various claims of classic utilitarianism are essential to consequentialism. One claim seems to be clearly necessary; any consequentialist theory must accept that certain normative properties depend only on its consequences. If that claim is dropped, the theory ceases to be consequentialist.

It is less clear whether that claim by itself is sufficient to make a theory consequentialist. Several philosophers assert that a moral theory should not be classified as consequentialist unless it is agent-neutral (Howard-Snyder, 1994; Pettit, 1997). This narrower definition is motivated by the fact that many self-styled critics of consequentialism argue against agent-neutrality. Other philosophers, as for example Bennett (1989), Broome (1991), and Skorupski (1995), prefer a broader definition that does not require a moral theory to be agent-neutral in order to be consequentialist.

A definition solely in terms of consequences might seem too broad, because it includes absurd theories. Of course, such theories are implausible. Still, it is not implausible to call them consequentialist, since they do look only at consequences. The implausibility of one version of consequentialism does not make consequentialism implausible in general, since other versions of consequentialism still might be plausible.

### Kantianism

Kantianism is strongly based upon the work of the German philosopher Immanuel Kant, especially his categorical imperative as expressed in his *Grundlegungen zur Metaphysik der Sitten* (1785) as demonstrated by Paton (1964). According to Rossouw (2002) Kant insisted that human reasoning and good will are necessary for consistent moral behaviour and he defined the good will as “the will that obeys the universal moral law”. From the reading of his work, it is possible to acknowledge that he believed that some duties are absolute, and therefore distinguished two forms of imperative: the categorical (an instruction to act that is not dependent on anything); and, the hypothetical (a conditional instruction to act). Kant also believed that people should never be used as a *mean* to an end, as expressed on its *Principle of Ends*. Rossouw (2002), demonstrates that the German philosopher plead the idea that people should act in such a way that, mankind should always be treated as an end and never as a mean only.

### Aristotelian ethics

Ethics, according to Aristotle, is an attempt to find out our highest good. Though many ends of life are only means to further ends, our aspirations and desires must have some final object or pursuit. Such an end is universally called happiness. However, given the fact that human nature is based on personal perceptions it is necessary to address such concept.

Therefore, Aristotle argued that neither the vegetative life nor animals possess the necessary biological instruments to a perfect realization and outworking of the true soul and self,

continued throughout a lifetime. But, he also expands his notion of happiness through an analysis of the human soul which structures and animates a living human organism. The parts of the soul are divided as follows (The Internet Encyclopaedia of Philosophy, 2006): calculative (intellectual virtue); rational (appetitive-moral virtue); and, irrational (vegetative-nutritional virtue).

The human soul has an irrational element which is shared with the animals, and a rational element which is distinctly human. The ability to properly control these desires is called moral virtue, and is the focus of morality. Aristotle notes that there is a purely rational part of the soul, the calculative, which is responsible for the human ability to contemplate reason logically, and formulate scientific principles. As exposed in the Internet Encyclopaedia of Philosophy (2006), Aristotle's account of moral virtue is his doctrine of the mean. According to this doctrine, moral virtues are desire-regulating character traits which are at a mean between more extreme character traits (or vices). Moreover, pleasure cannot be identified with Good, because it appears due to a free spontaneous action. In fact, pleasure is a subjective concept, because it may vary and be valued in different forms; however, it ultimately determines the judgment of "a good person".

### **American school**

ICT is critical to knowledge management in that they function less to support content delivery and more to support problem solving and open-ended tasks (Hanson, 2000; Schneider, Synteta and Frété, 2002). Networked ICT enable information access and retrieval, communication, collaboration, creativity and innovation. They provide management information through daily notices and a calendar, domain knowledge such as units of work and legacy data such as student reporting and finance records. The critical component is the scope for knowledge creation through connection and interaction. Without this component, there is a concentration on explicit knowledge with no recognition of the level and quality of interaction. Thus, connectivity through ICT is the difference between a traditional and a knowledge-enabled community, being an example the Lindsey model.

According to Lindsey (2002) knowledge management success has already been explained through the Balanced Scorecard approach that Kaplan and Norton (1997) propose. This model is a combination of Organizational Capability Perspective theory (Gold, Malhotra and Segars, 2001) and Contingency Perspective Theory (Becerra-Fernandez and Sabherwal, 2001).

The model assesses KM effectiveness using two main factors: Knowledge Infrastructure Capability (KIC) and Knowledge Process Capability (KPC), in which the second is predisposed by the Knowledge Task. The KPC can be seen as a representation of social capital, the relationships between knowledge sources and users, being operationalized through technology (the network itself), structure (the relationship), and culture (the context in which the knowledge is created and used). In fact, KPC entails the incorporation of knowledge management processes at an organizational level, and is operationalized by acquisition (the capturing of knowledge), conversion (making captured knowledge available), application (degree to which knowledge is useful), and protection (security of the knowledge). Moreover, tasks are described as activities performed by organizational units and indicate the type and domain regarding the knowledge under use. These guarantee that the right knowledge is being captured and used.

### **Conclusion**

The individual/collective dimensions are actually a syndrome of knowledge management, but engage a considerable number of cultural differences. In fact, the cultural syndrome is "a pattern characterized by shared beliefs, attitudes, norms, roles, and values that are organized around a theme and that can be found in certain geographic regions during a particular historic



period” (Triandis et al., 1995: 43), which is demonstrated through out the relationship of philosophical systems and the knowledge management models of Eastern and Western societies.

In collectivist cultures, people are more likely to define themselves in terms of group membership and place great value on its welfare. People are more likely to perceive negatively business practices that are inconsistent with the welfare of the collective (Erez and Earley, 1993). In contrast, in individualist cultures, people are more likely to perceive themselves as autonomous and place a higher value on their individual interests. So while duty, hierarchy, and interdependency are at the crux of what is moral in collectivist cultures; harm and rights form the basis of an individualistic moral domain (Shweder, 1990). For that, we may claim that in spite of the existence of similar ethical and moral dilemmas at an individual level, the perception of such dilemmas is entirely different. Plus, ethical dilemmas such as privacy regarding individual knowledge may be not perceived as such in eastern societies, as plead by Orito and Murata (2005, 2007).

However, the dichotomist dimension, individual/collective, imposes the need for transparent behaviours (Costa, Prior and Rogerson, 2007). However, with the advent of ICT transparency becomes *mediated transparency*, enhancing exponentially the ethical challenges, as stated by Floridi (2006); and therefore, a new model is needed (see Costa, Prior and Rogerson, 2007). Given such reality, Floridi’s information theory (2004; 2006) may provide important answers to that personal dimension of knowledge management, through two levels of justification: the characteristics of such theory; and, how information and communication technologies empower people individually.

The name information ethics is appropriate to Floridi’s theory, because it treats everything that exists as “informational” objects or processes. In fact, all entities will be 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, that is, the state of the object, its unique identity and its 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.

At this level of abstraction, informational systems as such, rather than just living systems in general, are raised to the role of agents and patients of any action, with environmental processes, changes and interactions equally described informationally (Floridi, 2006), which describes perfectly the role of the knowledge worker and the ethical and moral dilemmas stated.

## **Acknowledgements**

The first author of this paper would like to recognize the tremendous effort of Ms. Mary Prior and Professor Simon Rogerson regarding their support and guidance through out its PhD project, as well as to Nuno Miguel Araújo da Silva, and Nuno Sotero Alves da Silva for their comments.

## **References**

- A. Harth, et al. (2005), Wikiont: an ontology for describing and exchanging Wikipedia articles, Wikimania 2005, USA, California.
- Alavi, M. and Leidner, D. (2001), Review: knowledge management and knowledge management systems: conceptual foundations and research issues, *MIS Quarterly*, 25, 1, 107-136.

- Ames, R. and Rosemont Jr., H. (1998), *The analects of Confucius: a philosophical translation*, Ballantine, New York.
- Baskerville, R. and Dulipovici, A. (2006), The ethics of knowledge transfers and conversions: property or privacy rights, In *Proceedings of the 39<sup>th</sup> Hawaii International Conference on System Sciences*, IEEE, US, Hawaii, 144b.
- Becerra-Fernandez, I. and Sabherwal, R. (2001), Organizational knowledge management: a contingency perspective, *Journal of Management Information Systems*, 18, 1, 23-55.
- Bennett, J. (1989), Two departures from Consequentialism, *Ethics*, 100, 1, 54-66.
- Berthrong, J. (1991), Trends in the interpretation of Confucian religiosity, In Lee, P. (ed), *The Confucian-Christian encounter in historical and Contemporary perspective*, Edwin Mellen Press, Lewiston, 226-254.
- Blyth, A. (2005), Business behaving responsibly, *Director*, 59, 1, 30.
- Boodberg, P. (1979), The semasiology of some primary Confucian concepts, In Cohen, A. (ed), *Selected Works of Peter A. Boodberg*, University of California Press, Berkeley, 26-40.
- Brelade, S. and Harman, C. (2003), *A practical guide to knowledge management*, Thorogood, [S.l.].
- Broome, J. (1991), *Weighing goods*, Basil Blackwell, Oxford.
- Brown, H. and Duguid, P. (1991), Organizational learning and communities of practice: toward a unified view of working, learning and innovation, *Organization Science*, 2, 1, 40-57.
- Cardoso, L., Gomes, A. and Rebelo, T. (2003), Gestão do conhecimento: dos dados à informação e ao conhecimento, *Comportamento Organizacional e Gestão*, 1, 9, 55-84.
- Costa, G. and Silva, N. (2005), Failure in knowledge management: whose is the ethical responsibility?, *EthiComp 2005*, Linkoping University, Sweden, Linkoping, on line at <http://www.ccsr.cse.dmu.ac.uk/conferences/ethiComp/ethiComp2002/46conferencepapers> accessed at 05.07.2008.
- Costa, G. and Silva, N. (2007), Knowledge management: how ethical is your organization's knowledge, In Bynum, T., Rogerson, S. and Murata, K. (eds), *ETHICOMP 2007*, Meiji University, Japan, Tokyo, 123-136.
- Costa, G., Prior, M. and Rogerson, S. (2007), Will the evolution of ICT ethics engage organizational transparency?, Presented at *IT and Organizational Transparency 2007*, Portugal, Lisboa.
- Davenport and Prusak (1998), *Working knowledge: how organizations manage what they know*, Harvard Business School Press, Boston.
- Du Plessis, J., Britz, J. and Davel, R. (2007), *Slave or sibling: a moral reframing the corporate knowledge sharing community*, University of Johannesburg, Johannesburg.
- Easterby-Smith, M., Crossan, M. and Nicolini, D. (2000), Organizational learning: debates past, present and future, *The Journal of Management Studies*, 37, 6, 783-796.
- Egbu, C., Botterill, K. and Bates, M. (2001), A conceptual framework for studying knowledge management in project-based environments, In *Proceedings of the First International Conference on Postgraduate Research in the Built Environment*, University of Salford, Salford, 186-195.
- Eno, R. (1990), *The Confucian creation of Heaven*, State University of New York Press, Albany.
- Erez, M. and Earley, P. (1993), *Culture, self-identity, and work*, Oxford University Press, New York.
- Fingarette, H. (1972), *Confucius- The secular as sacred*, Harper Torchbooks, New York.
- Fisher, C. and Lovell, A. (2005), *Business ethics and values*, 2nd ed, Prentice Hall, Upper Saddle River.
- Floridi, L. (2006), Information technologies and the tragedy of good will, *Ethics and Information Technology*, 8, 4, 253-262.

- Floridi, L. and Saunders, J. (2004), The foundationalist debate on computer ethics, In Spinello, R. and Tavani, H. (eds), *Readings in Cyberethics*, 2nd ed, Jones and Bartlett, New York, 81-95.
- Ford, D. (2005), Perceived value of knowledge: shall I give you my gem, my coal?, In *Proceedings of 38<sup>th</sup> Hawaii International Conference on Systems Sciences*, IEEE, US, Hawaii, 247a.
- Gold, A., Malhotra, A. and Segars, A. (2001), Knowledge management: an organizational capabilities perspective, *Journal of Management Information Systems*, 18, 1, 185-214.
- Graham, A. (1989), *Disputers of the Tao: philosophical argument in Ancient China*, La Salle, Open Court.
- Gyatso, T. (1985), Opening the eye of new awareness, *Wisdom*, 19-20.
- Hanson, K. (2000), Surfing the subjective memory: granularity or innovation? In Hay, L., Hanson, K. and J. Henri (eds), *New millennium, new horizons: Information services in schools*, Charles Sturt University Centre for Studies in Teacher Librarianship, Wagga Wagga, 19-24.
- Harvey, P. (1990), *An introduction to business ethics*, Cambridge University Press, Cambridge.
- Howard-Snyder, F. (1994), The heart of Consequentialism, *Philosophical Studies*, 76, 107-29.
- Jowett, B. (1899), *Protagoras: Dialogues of Plato*, The Colonial Press, Michigan.
- Kidd, A. (1994), The marks are on the knowledge worker, In Adelson, B., Dumais, S. and Olsen J. (eds), *ACM Press*, Boston, 238-244.
- Kought, B. and Zander, U. (1992), Knowledge of the firm: combinative capabilities, and the replications of technology, *Organization Science*, 3, 3, 383-397.
- KPMG (2002), *Intellectual gold- KPMG's European Intellectual Property Survey reveals the value hidden in Europe's leading companies*, KPMG, London.
- Lau, D. (1992), *Confucius- the Analects*, 2nd ed, Chinese University Press, Hong Kong.
- Lindsey, K. (2002), Measuring knowledge management effectiveness: a task-contingent organizational capabilities perspective, *Eighth Americas Conference on Information Systems*, IEEE Computer Society, 2085-2090.
- Mattison, R. (2000), *The use of communities of practice in the generation, transfer and application of knowledge in the post industrial age*, A Study Project, University of Stellenbosch, Stellenbosch.
- Miller, D. (1999), *Principles of justice*, Harvard University Press, London.
- Munro, D. (1969), *The concept of Man in early China*, Stanford University Press, Stanford.
- Nikolaos, L. et al. (2005), *Enabling the exploitation of tacit knowledge: open issues and opportunities*, Ethicomp 2005, Linkoping University, Sweden, Linkoping, on line at <http://www.ccsr.cse.dmu.ac.uk/conferences/ethicomp/ethicomp2002/39conferencepapers> accessed at 05.07.2008.
- Nishida, K. (1970), *Fundamental problems of philosophy: the world of action and the dialectical world*, Sophia University, Tokyo.
- Nonaka, I. (1994), A dynamic theory of organizational knowledge creation, *Organization Science*, 1, 5, 14-37.
- Nonaka, I. (1997), *A new organizational structure: knowledge in organizations*, Butterworth-Heinemann, Boston.
- Nonaka, I. (1998), *The knowledge-creating company*, Harvard Business Review on Knowledge Management, Harvard Business School Press, Boston.
- Nonaka, I. (2002), A dynamic theory of organizational knowledge creation, *Organizational Journal of Strategic Information Systems*, 11, 2, 85-107.
- Nonaka, I. and Takeuchi, H. (1995), *The knowledge creating-company: how Japanese companies create the dynamics of innovation*, Oxford University Press, New York.

Nonaka, I., Toyama, R. and Byosi re, P. (2003), A theory of organizational knowledge creation: understanding the dynamic process of creating knowledge, In Dierkes, M., Antal, A. and Child, J. (eds), *Handbook of Organizational Learning and Knowledge*, Oxford University Press, New York, 491-517.

OECD (1996), *The Knowledge-based Economy*, OECD, Paris.

Orito and Murata (2005), *EthiComp 2005*, Linkoping University, Sweden, Linkoping, on line at <http://www.ccsr.cse.dmu.ac.uk/conferences/ethiComp/ethiComp2002/52conferencepapers> accessed at 05.07.2008.

Orito and Murata (2007), Rethinking the concept of information privacy: a Japanese perspective, In Bynum, T., Rogerson, S. and Murata, K. (eds), *ETHICOMP 2007*, Meiji University, Japan, Tokyo, 448-455.

Paton, H. (1964), *Groundwork of the metaphysic of morals*, Harper & Row, New York.

Pettit, P. (1997), The consequentialist perspective, In Baron, M., Pettit, P. and Slote, M. (eds), *Three Methods of Ethics*, Blackwell, Oxford, 92-174.

Polanyi, M. (1966), *The tacit dimension*, Peter Smith, Massachusetts.

Ponzi, L. and Koenig, M. (2002), Knowledge management: another management fad?, *Information Research*, 8, 1, on line at <http://InformationR.net/ir/8-1/paper145.html> accessed at 05.07.2008.

Rawls, J. (1971), *A theory of justice*, Oxford University Press, Oxford.

Rogerson, S. (1998), *Ethical aspects of information technology- issues for senior executives*, U.K. Institute of Business Ethics, London.

Roos, J. et al. (1998), *Intellectual capital: navigating in the new business landscape*, New York University Press, London.

Rossouw, D. (2002), *Business ethics in Africa*, 2nd ed, Oxford University Press, Cape Town.

Ryan, C. (2002), The reputation wars, *Australian Finance Review Boss*, March, 300-305.

Schneider, D., Synteta, P. and Fr t , C. (2002), Community, content and collaboration management systems in education: a new chance for socio-constructivist scenarios?, In *Proceedings of the third Congress on Information and Communication Technologies in Education*, Rhodes, on line at <http://tecfa.unige.ch/proj/seed/catalog/docs/rhodes-paper-tecfa-web.pdf> accessed at 05.07.2008.

Shimizu, H. (1995), Ba-principle: new logic for the real-time emergence of information, *Holonics*, 5, 1, 67-79.

Shweder, R. (1990), In defense of moral realism: reply to Gabennesch, *Child Development*, 61, 6, 2060-2067.

Skorupski, J. (1995), Agent-neutrality, consequentialism, utilitarianism... A terminological note, *Utilitas*, 7, 49-54.

Stahl, B. (2007), Privacy and security as ideology, *IEEE Technology and Society Magazine*, Spring, 35-45.

Sveiby, K. (1997), *The new organizational wealth: managing and measuring knowledge-based assets*, Berrett-Koehler Publishers, Inc., San Francisco.

The Internet Encyclopedia of Philosophy, (2006), Aristotle: General Introduction, on line at <http://www.iep.utm.edu/a/aristotl.htm> accessed 05.07.2008.

Todd, R. (2001), The smart school: knowledge management working for your future, Paper presented at the ASLA XVII Conference, Australia, Queensland.

Triandis, H. et al. (1988), Individualism and collectivism: cross-cultural perspectives on self-ingroup relationships, *Journal of personality and Social Psychology*, 54, 2, 323-338.

Williams, R. (2003), Integrating distributed learning with just-in-context knowledge management, *Electronic Journal of e-Learning*, 1, 1, 45-50.

World Bank, (1999), *World Development Report: knowledge for development*, Oxford University Press, New York.