

**McMaster
9th World Congress on**

<Intellectual Capital and Innovation>

Hamilton, Ontario, Canada
January 24-26, 2007

**ASIAN AND WESTERN INTELLECTUAL CAPITAL IN
ENCOUNTER**

**A DISCUSSION PAPER ABOUT OUR DIFFERENT VIEWS ON
KNOWLEDGE**

Dr. Daniel Andriessen

+31 (0)6 52 37 5658

Daan.Andriessen@inholland.nl

Dr. Marien van den Boom

+31 (0)6 51 55 9005

Marien.vandenBoom@inholland.nl

*NHOLLAND University
Centre for Research in Intellectual Capital
PO-box 261, 1110 AG Diemen
The Netherlands*

**This paper is suitable for:
oral presentation**

Bibliographical notes

Dr. Daniel Andriessen is Professor of Intellectual Capital at INHOLLAND University, The Netherlands, and Director of the Centre of Research in Intellectual Capital. Through his Weightless Wealth Research Group he consults with companies, government, educational organizations and academics on the subject of knowledge management and intellectual capital valuation and measurement. (www.weightlesswealth.com) E-mail: Daan.Andriessen@inholland.nl

Dr. Marien van den Boom is Research Fellow of the Centre of Research in Intellectual Capital. Central themes in his work are knowledge management, intellectual capital and Asian cultures. He wrote several articles about the reception of European philosophy in the contemporary Arab world. * Corresponding author: Fax: +31 (20) 4951889, e-mail: marien.vandenboom@inholland.nl*

Asian and Western Intellectual Capital in Encounter; a Discussion Paper About our Different Views on Knowledge

Abstract

Purpose

To analyze differences between Western and Eastern cultures in the way they conceptualize knowledge and discuss the implications of these differences for a global intellectual capital (IC) theory and practice.

Design/methodology/approach

A systematic metaphor analysis of the concept of knowledge and IC is used to identify common Western conceptualizations of knowledge in IC literature. A review of philosophical and religious literature was done to identify knowledge conceptualizations in the main streams of Asian philosophy.

Findings

Fundamental differences were found in the way knowledge is conceptualized. In Western IC literature common metaphors for knowledge include knowledge as a thing and knowledge as capital. In Asian thought, knowledge is seen as unfolding truth based upon a unity of universe and human self and of knowledge and action.

Research limitations/implications

The research was performed on a limited sample of literature. More research is needed to identify how knowledge is conceptualized in the practice of doing business in Asia and to test the effects of introducing IC theories to Asian businessmen and managers.

Practical implications

Western conceptualizations of knowledge, embedded in terms like intellectual capital and knowledge management, can not be transferred to Asian business without considering the local view on knowledge. Asian conceptualizations of knowledge should play an important role in the further development of a knowledge-based theory and practice of the firm.

Originality/value

The paper is the first to explore differences in knowledge conceptualizations by analyzing the underlying metaphors that are used in Western IC literature and Asian philosophy.

Keywords

Intellectual capital, Metaphors, Asia, Eastern philosophy, Religion

Paper type

Conceptual paper

Introduction

The resource-based view (Hamel and Prahalad, 1994; Prahalad and Hamel, 1990) and the knowledge-based view of the firm (Grant, 1996) have firmly positioned knowledge as the key resource of modern organizations. “In an economy where the only certainty is uncertainty, the sure source of lasting competitive advantage is knowledge” (Nonaka and Takeuchi, 1995). However, knowledge is an abstract concept. It has no direct referent in the real world. To make it comprehensible, we use metaphor to map elements of things we are familiar with in the real world (organisms, resources, products) onto the concept of knowledge (Andriessen, 2006). Knowledge is not a concept that has a clearly delineated structure. Whatever structure it has it gets through metaphor. Different people from different cultures use different metaphors to conceptualize knowledge. They may be using the same word; however, this word can refer to totally different understandings of the concept of knowledge.

Organizational literature that is based on the knowledge-based view of the firm includes literature on knowledge management (KM), intellectual capital (IC), and knowledge-based strategies, and covers topics like economics, strategy, accounting, finance, reporting, marketing, human resources, information systems, and intellectual property (Marr, 2005). What is striking though, is that most of this literature is from Western origin and is based on Western conceptualizations of knowledge. In Serenko and Bontis' (2004) ranking of 63 top KM/IC researchers only 6 researchers come from non-Western countries. In their ranking of top 88 KM/IC institutions only 6 institutions are not based in the USA, Europe, or Australia. Serenko and Bontis (2004) also provide a ranking of top IC/KM countries with regard to research productivity. 91.5% of the total productivity score comes from Western countries.

With the rise of knowledge-based economy in Asia, this Western-dominated organizational literature is being exported to Asian countries. There is a huge interest from businesses and universities in China, Korea, Taiwan, Indonesia, Malaysia, Singapore, and other countries in Asia and the Middle-East to learn about Western management ideas and techniques in the area of knowledge and intellectual capital management. There is, however, little insight into the success of management ideas and techniques that are based on Western conceptualizations of knowledge in an Asian context. Zhu (2004) highlights the huge differences in perspectives on KM between the US, Europe, Japan, and China, but he only briefly touches on the underlying differences in conceptualization of knowledge. Roos endorses the need of an epistemological and philosophical approach of what knowledge is about. He describes three epistemologies, a cognitivist profile, a connectionist profile, and autopoietic profile; profiles mainly identified within the context of an organization's ability to transform and deploy intangible resources (Roos, 2005). However, a philosophical approach in a cross-cultural and comparative perspective is still wanted.

To fill this gap, this paper explores the question: How does the Western concept of IC fit into Asian constructs of knowledge and what are the implications for implementing IC management in an Asian context? First, we describe the methodology used to answer the question. Second, we typify the Western way of looking at knowledge that culminates in the concept of 'intellectual capital'. Third, we describe various ways how knowledge is conceptualized in philosophical traditions in Asia and the Middle-East. We will look at Hinduism, Buddhism, Confucianism, and the Islam. Fourth, we describe similarities and differences that can be identified. This leads to a number of conclusions, as well as points for discussion regarding the implementation of intellectual capital management in Asia.

Methodology

Western literature on KM and IC is abundant, non-Western literature on KM and IC in English is scarce, although there are a very few publications with some connotations to Asian

concepts of innovation (Amidon, 1997; Itami, 1987; Nonaka and Takeuchi, 1995; Sakaya, 1990). Therefore, we used two different methodologies for identifying how knowledge is conceptualized in East and West. First, we adopted and reinterpreted Andriessen's (2006) systematic metaphor analysis of the concept of knowledge and IC to identify common Western conceptualizations of knowledge. We complemented this analysis with a review of the top-7 mostly cited KM/IC publications in the field. Second, we reviewed philosophical and religious literature to identify knowledge conceptualizations in Hinduism, Buddhism, Confucianism, and the Islam. By contrasting both findings we were able to formulate hypothesis about similarities, differences and implications.

The concept of knowledge, and the related concept of truth, is probably one of the most controversial concepts in human history. To do justice to the enormous amount of existing views and conceptualizations is impossible. Our analysis will therefore be broad and grossly oversimplified. Our only aim is to explore possible differences between East and West and their impact on IC management, and to raise awareness about the conceptual differences between various cultures.

Knowledge in Western IC literature

Serenko and Bontis published a list of most cited KM/IC publications. Seven out of the first nine¹ publications are from the USA or Europe (Serenko and Bontis, 2004). Let us briefly walk through this list of seven books to get an impression of how knowledge is conceptualized in Western management thinking.

The first Western publication on the list is a book entitled *Working Knowledge* (Davenport and Prusak, 1998) in which knowledge is primarily conceptualized as a resource that can be *created, stored, shared, located, or moved*. The second publication is *Intellectual Capital* (Stewart, 1997) in which knowledge is conceptualized as *capital* that can be *capitalized and measured*, and that requires a good *return on investment*. The third Western publication on the list is an article by Bontis (2001) in which knowledge is seen as an *asset* that must be *measured*. In *The New Organizational Wealth* by Sveiby (1997), knowledge is perceived as an *intangible asset* and as *human capital, internal structure capital and external structure capital*. Edvinson and Malone (1997), like Stewart, conceptualize knowledge as *capital*.

Hansen, Nohria and Tierney (1999), who wrote the sixth Western publication on the list, use two rather different conceptualizations of knowledge. First, they use *knowledge as information* that can be *codified, stored, accessed and used*. This conceptualization is reflected in their person-to-document knowledge-sharing approach. Second, they use *knowledge as thoughts or feelings* that can be *communicated and shared*. This is reflected in their person-to-person knowledge-sharing approach. The seventh Western publication on the list is *Intellectual Capital* (Roos *et al.*, 1997) in which knowledge is conceptualized as *capital* that comes in two forms: *human capital* and *structural capital*.

All seven publications conceptualize knowledge as some form of resource. This conceptualization makes use of the *knowledge as a resource* metaphor that is based on the source domain of physical resources for survival. The metaphor makes knowledge instrumental and places it in a taxonomy of organizational resources that also includes financial resources, human resources and physical resources. It allows us to include knowledge in the well-known view of organizations as input-throughput-output systems (Morgan, 1997). Through this metaphor, knowledge is conceptualized as a 'thing' (Zhu, 2004) or a 'substance', which gives access to verbs for control, like to *store, to use, to benefit from*,

¹ The 10th publication on the list is *Reengineering the Corporation* by M. Hammer and J. Champy (1993). As this is not really a publication about KM or IC we only look at the top 9.

and *to measure* (an amount). It also adds to the discourse about knowledge the attribute dichotomy of 'more' versus 'less' of this particular resource. A synonym for resource is the word *asset*. Assets have a specific meaning in the accounting community. Therefore, the metaphor of *knowledge as assets* makes it possible to include knowledge in the accounting discourse on organizations.

Capital is a special type of 'substance' that has in part the same characteristics as other resources, but also shows additional characteristics. The word capital comes with a number of popular connotations: capital is valuable and important, it is an asset for the future and not an expenditure, it can be invested in, it can be capitalized, capital itself can be invested, it allows for a return, it resonates with managers and Chief Financial Officers, having more capital is better, capital can be owned, capital can be valued financially, capital often appears on the balance sheet, capital is additive, capital is a stock, and capital 'can and must be measured and managed'. The knowledge as capital metaphor transports these positive connotations to the concept of knowledge, which then also becomes important, an asset, etc. In economic theory, the concept of capital is part of a wider theoretical structure that includes capital as an investment with a rate of return, the ability of the investor to appropriate the returns, associated opportunity costs, the issue of the funding of the investment, and the availability of a market for capital (Baron and Hannan, 1994). The *knowledge as capital* metaphor selectively transports some of these attributes of capital to the target domain of knowledge. Because of the many positive connotations of capital in the source domain, the metaphor indicates that knowledge is important, valuable and an asset instead of expenditure. In addition, the metaphor gives access to the powerful concept of value and valuation. The *knowledge as capital* metaphor is the metaphor that gives the term *intellectual capital* its meaning. The term *intellectual capital* makes sense to us because of the metaphor *knowledge as capital* with which we are all familiar.

The metaphor also makes it possible to include knowledge in the model of *organizations as financial flows*. The *knowledge as capital* metaphor not only offers new means for control (to invest in knowledge, knowledge is invested in something else), but also adds the notion to the discourse that a proper return on knowledge is to be expected and that the investor should be able to appropriate the return from the investment. This further emphasizes the instrumental use of knowledge.

Two more metaphors are dominant in the seven publications mentioned above. The first is the *knowledge as information* metaphor. This is used in many publications that view knowledge management from an IT perspective. Information itself is an abstract concept and a 'substance' metaphor is often used to conceptualize it. The *information as a resource* metaphor makes it possible to talk about information that can be stored, retrieved, protected, and distributed. The second metaphor is the *knowledge as thoughts and feelings metaphor*. This metaphor implies that knowledge is not like a substance that can be easily manipulated and controlled. Instead, knowledge is 'tacit' and resides in people's heads and bodies. Hansen et al. (1999) use this metaphor in their person-to-person knowledge management strategy. According to Andriessen (2006) this metaphor is also dominant in the work of the Japanese authors Nonaka and Takeuchi (Nonaka, 1994; Nonaka and Takeuchi, 1995). Both publications were the non-Western publications on the top 9 list of mostly cited KM/IC publications.

Andriessen's (2006) in-depth analysis of the metaphorical conceptualizations of knowledge in the work of Davenport and Prusak (1998), Nonaka and Takeichi (1995), and Stewart (1991) confirms that in Western management thinking, knowledge is instrumentalized and objectified through the use of 'substance' metaphors. Andriessen found 22 different metaphors for knowledge, 12 of which were 'substance' metaphors. These metaphors were dominant in the work of the Western authors Davenport and Prusak and Stewart. In contrast, the *knowledge as thoughts and feelings* metaphor was dominant in the work of the Japanese authors Nonaka

and Takeuchi. This metaphor emphasizes the non-instrumental, subjective nature of knowledge.

Asian conceptualizations of knowledge

As such, the presumption of shared Asian concepts of knowledge is incongruent with the reality of the cultural and religious diversity of South East Asia and the Middle East. To understand Asian concepts of knowledge, it is important to remember regional and cultural differences. Although an overview of Asian philosophies might be divided into the various main regions of Asia: India, China, Japan, Indonesia and other regions, we opted for a short description of those philosophies that have colored Asian traditions profoundly, presuming that those traditions are not bound to their country of origin. Indian philosophy is closely intertwined with Buddhist thought and has influenced Chinese thought as well. Confucian philosophy has permeated through many traditions throughout Asia and Islamic philosophy has been closely intertwined with other Asian traditions.

Hindu and Buddhist concepts of knowledge

The Indian philosophical tradition developed many, rather elaborate, metaphysical systems in which theories of consciousness abound. Certain schools enumerate numerous peculiar elements of consciousness. Knowledge and consciousness are closely intertwined with the doctrine of *karman*, generally taken as a term that comprises the entire cycle of cause and effect stating that liberation from successive existences is dependent on the realisation of the human self. According to the Upanishads, true knowledge consists of the realization that the self (atman) is identical with the Self (brahman), the underlying reality of all that is.

Basic in the Indian philosophy is the concept of *enlightenment* or *illumination* (the Hindu moksha), which originated in Indian spiritual philosophy and grew beyond religion and spirituality as such, and implies being illuminated by gaining wisdom or understanding. Enlightenment refers to an attitude of not being distracted by the experience of the present and the ability to focus on existence itself (awareness of being) rather than the thoughts or experiences about existence. Enlightenment is gaining insight in the nature of the self through observation and reducing one's ignorance. With detachment to distractions from worldly experiences and concentration on the self, man becomes aware of inner drives and motivations, enabling him to better interact with others and his environment.

This competence to concentrate is a strong cultural value in India, at least at a level of desirable cultural values, and is often reflected in the symbol of the lotus flower, referring to how man acquires knowledge. When Buddhism spread from India to Southeast Asia and East Asia, the symbolism of the lotus traveled with it, and the flower became also a pan-Asian symbol: "The lotus has its roots in the mud, grows up through the deep water, and rises to the surface. It blooms into perfect beauty and purity in the sunlight. It is like the mind unfolding to perfect joy and wisdom" (Wikipedia, 10-01-2006).

In Indian philosophy, human consciousness is not a substantial entity, but the aggregation of sensory perceptions that present themselves to us as an objective world. This implies that knowledge-able phenomena do not exist apart from the subject, but are merely a function of the cognition of the human subject, although at the same time it is defended that the reality of being as perceived by the senses and the mind always transcends the human cognition at the same time. This symbolic character of language is verbalized in the famous Kena Upanishad: "That which cannot be expressed by words, but that by which the word is expressed . . . That which cannot be thought by the mind, but that by which, they say, the mind is thought . . ." (Kena Upanishad 1,1-9) Although this text refers to the grasping of ultimate reality, it illustrates a long strand in Indian secular thought. Indian rationality focuses on a distinctive mode of rationality, in which the knower is never isolated from the known. Language often

refers to sensory affects, emotions and feelings in this interdependency. The truth of a concept or observation is, moreover, indeterminate as every real object is hedged by a network of relations that are relatively permanent, yet also relatively changing.

When we look to specific branches of Buddhism that originated on Indian soil, all knowledge is the result of a fictive creation of the mind and is in this sense devoid of original substance and is therefore not real. Phenomena in the social world have only a transitory, provisional or temporary existence, as they are the products of dependent origination or causation. In addition, phenomena that relate to nature and reality are constructions of images in the human consciousness. This strong emphasis on the symbolic character of language is clearly perceivable in the Buddhist logic of Dignaga, according to whom all words have a temporal existence. Words are impermanent and produced by (impermanent) causes, like a ceramist shapes earthenware. The inextricably intertwined relationship between knowledge and human imagination is well known illustrated in the Buddhist wheel of life, one of the most well known symbols in Asian cultures.

The historical Buddha was notoriously silent about metaphysical knowledge. Questions like the eternity and the finitude of the universe, the permanence of the human soul etc. were not answered, neither negatively nor positively. This warding off of all philosophical questioning is even more strongly mirrored in the teachings of Japanese Buddhism, where emptiness or essence-less of being is central. All being is empty of essence. In comparative philosophy, it has often been said that the fundamental difference between Asian and Western philosophical paths is that “while Nothingness is foundational for Eastern experience and thought, Being is the source and background for all verbalization and reflection in Western thought and experience” (Tosolini, 2005). This emphasis on the essence-less of being is distinctive from the Western Cartesian method where concepts, clearly and distinctly presented to the mind, are beyond any doubt. Truth really exists in the reason of thinking individual and is the basis of knowledge. Conversely, in Buddhist-Japanese culture there is a certain absence of imputing essences to things presented in images and words. Emptiness of being connotes the groundlessness of all ideas, images and conceptions, including fixed doctrines and theories.

According to the Japanese philosopher Nishida Kitaro (1870 – 1940), “the ultimate locus in which our thoughts and existence resides is in that of Absolute Nothingness, where the self becomes truly itself by reaching a new standpoint of self-awareness” (Tosolini, 2005). Nishida is also one of the philosophers who is decisively present in the publications of Nonaka and Takeuchi. Their emphasis on tacit knowledge relies on Nishida’s concept of pure experience as ‘directness’, ‘acting intuition’, and ‘living reality’. (Nonaka *et al.*, 2001; Nonaka and Takeuchi, 1995) According to Nishida, these modes of being are in contrast to the rationalistic and positivistic philosophy he saw featuring Western thought from the Greeks to the moderns. Peculiar for this Western thought is a ‘procedural-linear thinking’ with distinctive consequences:

- reality is perceived through sensations or action over against a perceiving subject
- the human self is pictured in an individualistic sense as a lonely subject, giving meaning to the world and the human other
- the Western dichotomy between subject and object beclouds and conceals “a deeper understanding of the world in which people act, live, and have their ‘being’, and from there to consider the ‘thou’ as disposable and unnecessary requisite for the self to know itself” (Tosolini, 2005).

Peculiar for the Japanese world view, as part of the surrounding Asian world is a more 'enveloping' perception of being that can be seen as a serious attempt to overcome the procedural-linear thinking of the West. Nishida describes this Asian worldview as follows:

- consciousness is "founded on an original and pre-reflective intuition without any separation between subject and object"
- consciousness is set in a "self-unfolding and unbroken progression of reality", in which things manifest themselves 'just as they are' (instead of being objects of human manipulation)
- human identity implies 'to be within' instead of being outside and in isolation of the world as an opposite (Tosolini, 2005).

Nonaka and Takeuchi, based on Nishida's intuitive action, underline the dynamics of knowledge creation as a continuous, self-transcending process, in which the shared context (ba) for knowledge creation is foremost. Knowledge is not a context-free absolute, knowledge needs a context, an environment to be created, shared and utilized. Knowledge is not a thing, but a living process (Nonaka *et al.*, 2001). The Western emphasis on explicit knowledge relies on the separation between subject and object, whereas the Japanese concept of tacit knowledge is based on the unity of subject and object. Explicit knowledge refers to a reality that it denotes from outside. Tacit knowledge refers to a reality that it denotes from within. On top of that, because of the interdependence of the human self and the world, a new locus of knowledge creation emerges whereby knowledge originates from a shared context and transcends the knower and the known. It is 'self-transcending knowledge' in which the human self 'conceives of its acting while acting' (Scharmer, 2001).

Confucian concepts of knowledge

According to the Confucian philosophy, there is an immaterial and underlying principle (li) that gave to all things form and content. How difficult it is to grasp this underlying principle of being, in principle our conceptualizations of the world exist in the human mind only. (Pleskacheuskaya, 2005) This constitutive principle of li binds also all levels of existence together into a harmonious way. Li is present in material and natural forces (wuli), in the psycho-cognitive sphere (shili) as well as in the socio-political sphere (renli). Because of this interwoven network of various levels of existence, "there can be no 'real' facts or 'neutral' data upon which, alone, contending parties can arrive at 'objective' description, 'rational' judgement, or 'scientific' decisions" (Linstone and Zhu, 2000). Knowledge is not a substance outside, but merely innate knowledge that unifies the man with the world and the society.

Basic in the Confucian concept of knowledge is the unity of knowledge and action. Knowledge exists in action. Knowledge is not a formal structure of ideas on the level of rational thinking or representation: knowledge unfolds itself in -moral- action. Some Chinese philosophers, when focusing on the relevance of external learning and book knowledge, emphasize that knowledge in some way precedes action and can be acquired by investigating the principle of things and events in the external world as well as within one's self. According to the Chinese philosopher Wang Yang-ming, principle and mind are one. Outside the mind however, there is no principle and, conversely, all principles are contained within the mind. Related to Wang's concept is that the mind can be seen as the originator of knowledge. The master of the body is the mind. "What emanates from the mind is the will. The original

substance of the will is knowledge, and wherever the will is directed is a thing [event]. For example, when the will is directed toward serving one's parents, then serving one's parents is a 'thing'. . Therefore, I say that there are neither principles nor things outside the mind" (Eliade, 1992). Basic also to Wang's contribution to Neo-Confucian thought is the doctrine of the unity of knowledge and action. Knowledge discloses itself in action only: "Knowledge in its genuine and earnest aspect is action and action in its intelligent and discriminating aspect is knowledge" (Eliade, 1992). As a result, the focus of the Chinese is primarily on useful-workable knowledge (Zhu, 2004).

Islamic concepts of knowledge

Influential in Indian-Islamic as well as in Arab-Islamic contemporary philosophy is the poet, philosopher and politician Dr. Muhammad Iqbal (d.1938), highly honored as the 'creator' and 'thinker' of Pakistan. Iqbal is considered as one of the most influential spokesmen of modern Islamic thought, and he inspired well-known philosophers in the contemporary Islamic world. In his poetry as well in his philosophical essays, Iqbal considers human and authentic truth is the very focus of the Islamic tradition. Iqbal emphasizes that truth, although originating in heavenly spheres and descending to the world, unfolds itself in the authenticity of man. However, in modern times this human focus of truth may have been gone or neglected. Herewith, Iqbal criticizes a mystical tendency in Islamic thought, which he also finds in Western culture, whereby a more vertical worldview situates perfection and beatitude in heaven and not on earth. Knowledge comes from above and is not mediated by empirical analysis of social reality. This primacy of an idealistic concept of truth has to be removed and replaced by a thorough horizontal order in which 'truth' is not outside but inside. Iqbal, and later on the influential Egyptian philosopher Dr. Hasan Hanafi (University of Cairo) fundamentally reject any dualism in Islamic (as well as Western) epistemology (Hanafi, 1988).

Hanafi criticizes Descartes' cogito ergo sum, as his rationalism is methodologically limited to the world of nature and physics: the world of the cogito is only the object of natural sciences. But, in order to acquire certainty, Descartes falls back in vertical verification, in essences and in this way prepares the foundation of a dualistic worldview: essence vs. existence, spirit vs. matter, knowledge vs. experience, and soul vs. body. Hanafi opposes any representation of knowledge from out an idealistic point of view. The door to reality is to be found in human conscience as activity; there and there alone reality becomes manifest, not only the physical reality of natural sciences à la Descartes, but also history and culture. Existence is not a formal structure on the level of rational thinking or representation: existence unfolds itself. Nothing in the world can be perceived or known without and outside the existence of human subjectivity. When man opens himself to authentic being, knowledge unfolds itself and becomes disclosed.

Conclusion

Thinking is not universally the same. Asians and Westerners differ in what they observe. People actually conceive –and even perceive- the world differently because of differing ecologies, social structures, philosophies, and educational systems (Nisbett, 2003). Our analysis reveals this is also true for the way we conceptualize knowledge.

In Western organization literature on KM and IC, the dominant way to conceptualize knowledge is to make it like a thing or a substance. This 'thingification' (Gustavsson, 2001) or 'reification' (Petrovic, 1983) is not uncommon in management thinking. Gustavsson (2001) shows that terms like 'organization', 'globalization', and 'technology' are also examples of phenomena that are 'thingified'. Thingification makes it possible to treat a phenomenon as something objective outside of human beings and to manipulate and control it. In the case of

knowledge, this controllability is further increased through the use of the *knowledge as resource* metaphor. This metaphor allows us to *economize* knowledge and to treat it in the same way as other organizational resources are treated. The economization of knowledge is further amplified through the *knowledge as capital* metaphor, which places knowledge in the realm of economic assets that require a proper rate of return. We are not saying that the thingification of knowledge in Western IC literature is good or bad. Savage (2005) states thingification of knowledge is undesirable and talks about 'knowledging' to highlight that knowledge is like a process. Gustavsson (2001) warns for the simplification that results from thingification. Thingification also creates power for people who control the way the properties of the thing are defined, the way it is made trustworthy, and the way people identify with it. For the moment we view the thingification of knowledge as an interesting characteristic of Western IC literature and a useful characteristic in the comparison with Eastern thought, without judging it in any way.

In Asian philosophy in general, strong emphasis is laid on the basic subjective nature of knowledge. Knowledge is not a thing or substance, knowledge is far more part of a process. Also rational thought is not disconnected from the emotional activity of the mind. Acquiring knowledge through examination and inquiry are dependent on knowing deeper drives and motivation of consciousness. At a level of desirable social values, knowledge is dependent on the disciplined, pure, and alert mind as a precondition of knowledge. Asian philosophy underlines that notions of knowledge are highly symbolic in character, presume the unity of knowledge and action, and refer (because of the unity of man and being) strongly to natural and social phenomena. Also in the context of Islamic philosophy, the ontological stand of the 'unity of being' implies that knowledge is not disjoined from reality as such. In Asian epistemology knowledge is also dynamic and full-of-live as it emerges in social interactions among individuals, groups, nature and the surrounding social context.

Asian thought is holistic and drawn to reality as an integral whole and to interdependencies and relations among objects and events. By contrast to Western modes of reasoning, Asian thought depends far less on categories, formal logic or isolated objects. Asian reasoning is dialectic, seeking a middle way between opposing concepts. By contrast, Westerners focus on distinctive objects and isolate these from their context, use attributes to assign them to categories, and apply rules of formal logic to understand their performance.

Differences between Western IC literature and Asian philosophy in conceptualizations of knowledge can be summarized in a table of dominant metaphors (see table I).

-----take in Table I-----

This table is a simplification and does not do justice to the varieties and divergence within both Western IC literature and Asian philosophy, as well as their mutual influences. For example, Zhu (2004) points towards the differences between the American and European approach to KM, with a stronger emphasis in Europe on knowledge as power and on the knowledge discourse within organizations. He also emphasis the influence of European thinking in the work of Nonaka and Takeuchi (Nonaka and Takeuchi, 1995) with respects to Plato's 'justified true belief' and Polanyi's 'tacit dimension'.

Implications and discussion

The distinctive ways of looking at knowledge in Asian culture and Western IC literature will make it difficult for Asian management just to adopt and suck up Western theories of Intellectual Capital. Culture (in a corporate and a national sense) always defines what knowledge is outstanding (DeLong and Fahey, 2000). Readers who are not familiar with the Western metaphors of knowledge will have difficulty interpreting and acting upon many of the theoretical concepts found in IC literature. This IC theory includes notions like managing,

measuring, reporting, sharing, storing, and retrieving knowledge, all of which are based on metaphors not found in Asian philosophical thought about knowledge.

The selection of metaphors for conceptualizing knowledge is not trivial. The selected metaphors determine what characteristics are assigned to knowledge, what problems are associated within the firm regarding knowledge, and what solutions are proposed. In a small experiment we recently asked a group of managers to describe the knowledge-related problems in their organization based on the *knowledge as water* metaphor. We also asked them to think about possible solutions. Then we instructed them to do the same, but this time to use the *knowledge as love* metaphor. Both metaphors produced very different problem definitions as well as solutions (see table II). The participants were stunned by the impact the metaphors had on their view of the organization. They all thought that the *knowledge as love* metaphor highlighted the more important and fundamental problems in their organization.

-----take in Table II-----

By adopting IC theory and the underlying metaphors for knowledge, Asian managers take on a distinct view on organizations. This view will steer the way they define problems in the organization, see opportunities, and devise solutions. Given the distinct differences in conceptualizations of knowledge between East and West, we question whether this view can and will be as productive in an Asian business context as it is in the West. For example, Zhu (2004) shows that the American preference of economizing knowledge through markets, management and measurement does not fit the Japanese, European or Chinese style of KM. Japanese favor knowledge communities because knowledge creation depends on love, care, and trust. For Europeans markets and communities are both "geared toward the instrumental 'system' and not the practical 'lifeworld', and therefore need to be deconstructed" (Zhu, 2004 p. 75). For the Chinese the distinction between *either* market, *or* community is the wrong distinction. Both should be built as yin and yang into a dialectic KM context.

Difficulties not only arise at the level of firms trying to implement Western IC and knowledge management concepts. At a macro level similar difficulties come up. In official EU and ASEAN statements regarding the knowledge economy, the macro-economic approach to face the challenges of the knowledge economy is predominant. The problems that are identified at the macro level are influenced by the metaphors chosen. For example, in the EU, a common way to diagnose the lack of innovation in the European Union is to define it as a problem of supply and demand. According to this diagnosis, there is in certain sectors enough supply of new knowledge, but either this supply is not what is demanded, or both supply and demand have difficulty finding and understanding each other. This diagnosis is based on a thingification of knowledge in which knowledge is seen as a product in a marketplace that has a supply-side and a demand-side. The solutions that follow from this diagnosis involve the installation of 'knowledge-brokers', the creation of institutions that help in 'translating' fundamental research into practical applications, and the creation of virtual markets where supply and demand can meet. We question whether this conceptualization of knowledge will be useful when adopted in an Asian macro-economic context.

Western culture has thoroughly influenced Asian cultures, and rationalism and materialism have deeply penetrated the social structure. On top of this, a new dualism emerges, like the skyscrapers in Asian cities, as if a Western universal concept of knowledge is the only beatific truth. In this Westernization of Asian cultures, man loses his authenticity by an orientation to the outside stranger and projecting truth towards another object: the non-self. In the meantime, Hongkong-ization, Kuala Lumpur-ization and many more constructions of (not only Western) modern thought emerge, whereby knowledge manifests itself as a 'thing' that can be handled by technology or modernistic innovation only.

There is another global development that is worrying. Due to revivalist tendencies in various world cultures, Asian and Western cultures run a risk, notably by opposing the truth of one

culture as being superior towards the other inferior one. Reformist movements in contemporary world cultures ignore the changing paradigms of international businesses and are unaware of the need of 'global logic' in contemporary markets (Reynolds, 2002). One of the tendencies in revivalist movements in Christian, Hindu, Buddhist, Confucian and Islamic regions, is the fixation of the knowledge of a tradition: the 'truth' of a national culture is seen as a superior treasury in contrast to the 'inferior' truths of other cultures. Cultural reformism contributes to a concept of truth in which Western truth or Asian truth is paradigmatic in a cognitive and normative sense: all regions of human life are covered by a comprehensive truth, overshadowing the historical dimension of the subjectivity of human consciousness (Hanafi, 2000).

Key questions surrounding the knowledge economy transcend all cultures, as the impact of value innovation will have an effect across all industries that have common strategic themes. The key questions, such as changing organization and management structures, changing value chain and channel dynamics, and changing customer and product profiles, transcend all national industries and organizations. The diagnosis regarding these key issues and the identification of successful solutions are at the same time heavily dependent on the shared assumptions, beliefs, expressions, norms and values of the local situation, and on the underlying metaphors used to conceptualize knowledge. The changes in the knowledge economy need a profound translation into the assumptions, values, reasoning, and communication of a cultural and social group, be it human motivation, regulations, communication, valuation of knowledge, commitment to the local and global market or whatever. Due to different concepts of knowledge East and West, IC theorists will have to be cautious to monopolize their thesis as a universal theory of IC (Zhu, 2004). The traditions of Hinduism and Buddhism in India, or Buddhism, Taoism, and Confucianism in China, form a vast tradition with distinctive concepts of knowledge. It is doubtful whether a Western IC can easily fit into Asian management theories. The time is approaching when Western theorists of IC will no longer be able to neglect Asian concepts of knowledge. In former times, Asians presumed that the only way to innovation was through imitation of the West. Currently, a mental switch is taking place in Asian minds to work out their own solutions (Mahbubani, 2001). Nonaka and Takeuchi's distinction of explicit and tacit knowledge strongly influenced Western KM theorists to focus more on the organizational culture of knowledge sharing and on the competences of employees as one of the dynamics of innovation. Similar initiatives within the circle of Asian IC theorists are to be taken in order to develop Asia-styled concepts of IC and export them to the West. This will enable comparison and integration of different approaches. Such an 'interactionist strategy' (Zhu, 2004) "...geared toward constructions and connections of cross-cultural contexts, would allow researchers and managers from different styles to contrast and share with another distinctive perspectives and practices, each expressed in its most incisive terms, in its strongest case." (p. 75). The need for cultural differentiation regards also IC, as the conceptualization of knowledge is always featured by the main trends in a philosophical tradition. East is East, and West is West, but sometime its IC must meet.

Table I: metaphors for knowledge in East and West

Origin	Western IC literature	Asian Philosophy
Dominant metaphors	<ul style="list-style-type: none"> • Knowledge as a thing that can be controlled and manipulated • Knowledge as information that can be codified, stored, accessed and used • Knowledge as resource that can be created, stored, shared, located, or moved, and that is part of the input-throughput-output system of the organization • Knowledge as capital that can be valued, capitalized and measured; that is part of the financial flow and requires an return on investment • Knowledge as thoughts or feelings that are tacit but can be made explicit; that can be communicated and shared 	<ul style="list-style-type: none"> • Knowledge as spirit and wisdom • Knowledge as unfolding truth • Unity of universe and human self • Unity of knowledge and action • Knowledge as illumination or enlightenment of an underlying, deeper reality • Knowledge as essence-less and nothingness (Japan) • Knowledge creation as a continuous, self-transcending process

Tabel II Problem definitions and solutions based on two metaphors for knowledge

Metaphor	Knowledge as Water	Knowledge as Love
Problem definitions	<ul style="list-style-type: none"> • Scarcity of knowledge, not enough knowledge sources, knowledge has dried up • People are forced to take in (useless) knowledge • Overflow of knowledge • Knowledge leaking away • Knowledge does not flow • Unconnected reservoirs of knowledge 	<ul style="list-style-type: none"> • Organization is build on forced marriages • Too many brief contacts, no sustainable relationships • Organization has no heart, no passion • Lack of trust, no unconditional relationships • Knowledge sharing is like one way love • Not enough challenges, too much routine • No growth, no multiplication of knowledge
Proposed solutions	<ul style="list-style-type: none"> • Create an inventory of existing knowledge • Create reservoirs of knowledge • Canalize knowledge • Improve communication to share knowledge 	<ul style="list-style-type: none"> • Listen to aspirations and capabilities of employees • Create opportunities for employees • Stimulate spirituality in the organization • Improve loyalty of employees toward the organization • Work on relationships between people • Say goodbye to people who do not fit or don't feel happy

Reference List

Amidon, D. M. (1997), *Innovation Strategy for the Knowledge Economy. The Ken Awakening*, Butterworth-Heinemann, Oxford.

- Andriessen, D. G. (2006), "On the metaphorical nature of intellectual capital; A textual analysis", *Journal of Intellectual Capital*, Vol. 7, pp.93-110.
- Baron, J. N. and Hannan, M. (1994), "The Impact of Economics on Contemporary Sociology", *Journal of Economic Literature*, Vol. 32, pp.1111-46.
- Bontis, N. (2001), "Assessing knowledge assets: A review of the models used to measure intellectual capital", *International Journal of Management Reviews*, Vol. 3, pp.41-69.
- Davenport, T. H. and Prusak, L. (1998), *Working Knowledge*, Harvard Business School Press, Boston.
- Delong, D. W. and Fahey, L. (2000), "Diagnosing cultural barriers to knowledge management", *Academy of Knowledge Management Review*, 14, 113-127.
- Edvinsson, L. and Malone, M. S. (1997), *Intellectual Capital: The Proven Way to Establish Your Company's Real Value by Measuring its Hidden Brainpower*, HarperBusiness, London.
- Eliade, M. (1992), "Neo-Confucianism". In Eliade, M. (Ed.), *Encyclopedia of Religion*, MacMillan Reference Books, New York,
- Grant, R. M. (1996), "Toward a knowledge-based theory of the firm", *Strategic Management Journal*, Vol. 17, pp.109-22.
- Gustavsson, B. (2001), "Power over meaning; unlearning and human values, In Chakraborty, S.K. (Ed.), *Management of Power - Ethical and Values aspects*, Oxford University Press, Delhi, pp. 339-58.
- Hamel, G. and Prahalad, C. K. (1994), *Competing for the Future*, Harvard Business School Press, Boston.
- Hammer, M. and Champy, J. (1993), *Reengineering the Corporation: A Manifesto for Business Strategy*, HarperCollins, New York.
- Hanafi, H. (1988), *From dogma to revolution(in Arabic-5 vols.)*, University of Cairo, Cairo,
- Hanafi, H. (2000), *Islam in the Modern World. Religion, Ideology and Development*, (2 vols.) Dar Kebaa, Heliopolis.
- Hansen, M. T., Nohria, N., Tierney, T. (1999), "What's your strategy for managing knowledge?", *Harvard Business Review*, pp.106-16.
- Itami, H. and Roehl, T.W. (1987), *Mobilizing Invisible Assets*, Harvard University Press, Cambridge, MA.
- Linstone, H. A. and Zhu, Z. (2000), "Towards synergy in multiperspective management: An American-Chinese case", *Human Systems Management*, Vol. 19.
- Mahbubani, K. (2001), *Can Asians Think? Understanding the Divide between East and West*, Key Porter Books Toronto.

- Marr, B. (Ed.)(2005), *Perspectives on Intellectual Capital: Multidisciplinary Insights into Management, Measurement and Reporting*, Elsevier Butterworth Heinemann, Burlington, MA.
- Morgan, G. (1997), *Images of Organization*, (2nd ed.) Sage, London.
- Nisbett, R. (2003), *The geography of thought. How Asians and Westerners think differently...and why*, The Free Press, New York.
- Nonaka, I. (1994), "A dynamic theory of organizational knowledge creation", *Organization Science*, Vol. 5, pp.14-37.
- Nonaka, I. and Takeuchi, H. (1995), *The Knowledge-creating Company: How Japanese Companies Create the Dynamics of Innovation*, Oxford University Press, New York/Oxford.
- Nonaka, I., Toyama, R., and Konno, N. (2001), "SECI, Ba and leadership: a unified model of dynamic knowledge creation", in Nonaka, I. and Teece, D. (Eds.), *Managing Industrial Knowledge. Creation, Transfer and Utilization*, SAGE Publications, London, pp. 13-43.
- Petrovic, G. (1983), "Reification", in Bottomore, T., Harris L., Kiernan, V.G., and Miliband, R. (Eds.), *A Dictionary of Marxist Thought*, Harvard University Press, Cambridge, MA, pp. 411-13.
- Pleskacheuskaya, I. (2005), "The Five Elements of the Chinese Universe", *China Today*, 54, pp.56-57.
- Prahalad, C. K. and Hamel, G. (1990), "The Core Competence of the Corporation", *Harvard Business Review*, Vol. 68, pp.79-91.
- Reynolds, C.(2002), *Global Logic. The Challenge of Globalisation for Southeast Asian Business*, Prentice Hall, Singapore.
- Roos, G. (2005), "An epistemology perspective on Intellectual Capital", in Marr, B. (Ed.), *Perspectives on Intellectual Capital. Multidisciplinary insights into management, measurement and reporting*, Elsevier Butterworth-Heinemann, Oxford, pp. 196-209.
- Roos, G., Roos, J., Dragonetti, N. C. and Edvinsson, L. (1997), *Intellectual Capital: Navigating in the New Business Landscape*, New York University Press, New York.
- Sakaya, T. (1990), *The Knowledge-Value Revolution: or a History of the Future*, Kodansha International, New York.
- Savage, C. (2005), *An open invitation to participate in co-creating the knowledge economy*, (unpublished article).
- Scharmer, C. O. (2001), "Self-transcending knowledge; organizing around emerging realities", in Nonaka, I. and Teece, D. (Eds.), *Managing Industrial Knowledge; Creation, Transfer and Utilization*, SAGE Publications, London, pp. 68-90.

- Serenko, A. and Bontis, N. (2004), "Meta-Review of Knowledge Management and Intellectual Capital Literature. Citation impact and research productivity rankings", *Knowledge and Process Management*, Vol. 11, pp.185-98.
- Stewart, T. A. (1991), "Brainpower", *Fortune*.
- Stewart, T. A. (1997), *Intellectual Capital: The New Wealth of Organizations*, Doubleday, New York.
- Sveiby, K. E. (1997), *The New Organizational Wealth: Managing and Measuring Knowledge-based Assets*, Berrett-Koehler Publishers, San Francisco.
- Tosolini, T.(2005), "Infinity or Nothingness? An Encounter between Nishida Kitaro and Emmanuel Levinas", *Social Identities*, Vol.11, 209-228.
- Zhu, Z. (2004), "Knowledge management: towards a universal concept or cross-cultural contexts?", *Knowledge Management Research and Practice*, Vol. 2, pp.67-79.