Knowledge Sharing and the Process of Comprising Post-modernism and its Indeterminacy

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Summary

While it is generally accepted that knowledge management and information sciences are interdisciplinary fields, relying upon the foundations of the twentieth century post Kantianism deducting reasoning and the hermeneutic research hypotheses, the digital content and the web-based information services have imposed new claims in the domain of information science.

Structural changes in knowledge representation, multilingualism in digital content representation, semantic and syntax problems overcome prevailing knowledge organization morphologies.

This paper supports postmodernism and its indeterminacy as appropriate and integral in the new agenda of digital resources management and examines some theories about knowledge organization and representation.

Paper's objectives fall within the historical context of knowledge organization, not as ontology of objects not either as metadata schemata but as the basis of understanding the post -modernist social epistemology.

Key words: knowledge management, modernism, postmodernism, social epistemology

Introduction

Culture of modernism fulfilled human expectations for certainty about theories, disciplines, and models in information studies. Standing points deriving from the optimism of quantitative deductive positivistic models have supported diachronically solid research frameworks, introducing the term interdisciplinary in 'informational' theory and culture. A creative framework from dominated disciplines in social and humanistic sciences has stimulated curricula redesign, educational objectives and new directives on vocational skills for the information professional. The 'inevitable' technology and the basic assumption of technological determinism *'that a new technology [...] changes the society or the*

sector into which it has 'emerged' [...] 'we' adapt to it because it is the new modern way'[1] seems to drive modern history.

Modern theorists found a comprehensive context to develop the outline of the 'information era' within which all research questions should meet the underline societal movements. Technicalities, such as indexing and classification in clear structures for both modernism fluidity and post modernism indeterminacy exercise new approaches to meta -industrial world[2]

In between, *'new concepts are needed to comprehend the world and its transformations. New words are needed to designate or to go along with these concepts [...] the concept moves gradually to the center of terminology'*[3]

However, information and knowledge models based on conceptualisation of information should be supplemented by considerations on information and knowledge theory.

Within this framework this paper argues that knowledge representation and knowledge management cited as core issues in the meta-information era need a new epistemic standing point. Social epistemology here, as the *'social path'* dimension[4] indents to contribute to the theoretical construction of this work. To sign the importance of this need we argue that the system of knowledge that is, for Leibniz a system of truths should be deductively based on the division and the analysis of concepts and symbolisms within the meta-modern world where

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[1] Williams, Raymond. The politics of modernism. London: Verso, 1989

[2] Hanson, Alan. From Classification to Indexing: How Automation transforms the way we think //*Social Epistemology,* Vol. 18 (4), October-December, 2004 pp.333-356

[3] Gresser, J-Yves. Terminology and Information Science(s)// *3rd International Conference on Information and Communication Technologies: From Theory to Applications, ICTTA* , 2008

[4] Social epistemology refers here to the concept as it has been defined by Goldman, Alan in his work *'Knowledge in a Social World'*. Goldman, Alvin I. Regents Professor of Philosophy, University of Arizona. Print publication date: 1999. Published to Oxford Scholarship Online: November 2003. *"Traditional epistemology, especially in the Cartesian tradition, was highly individualistic, focusing on mental operations of cognitive agents in isolation or abstraction from other persons. [...] But given the deeply collaborative and interactive nature of knowledge seeking, especially in the modern world, individual epistemology needs a social counterpart: social epistemology. In what respects is social epistemology social? First, it focuses on social paths or routes to knowledge. That is, considering believers taken one at a time, it looks at the many routes to belief that feature interactions with other agents, as contrasted with private or asocial routes to belief acquisition. This "social path" dimension is the principal dimension of sociality that concerns me here. Second, social epistemology does not restrict itself to believers taken singly. It often focuses on some sort of group entity – a team of co-workers, a set of voters in a political jurisdiction, or an entire society – and examines the spread of information or misinformation across that group's membership. Rather than concentrate on a single knower, as did Cartesian epistemology, it addresses the distribution of knowledge or error within the larger social cluster. Even in this second perspective, however, the knowing agents are still individuals. Third, instead of restricting knowers to individuals, social epistemology may consider collective or corporate entities, such as juries or legislatures [...]"*

the individual should be taken in front of our thought. Current bibliography is occupied with an intense empiricism. There is a need for reconceptualisation of the basic components of our driven thinking.

In this line, important theoretical contributions should be recognized at the basics of information science. *'Information and library education has, as a result, become preoccupied with the 'management' of information and knowledge and its associated technologies of performance maximization. […] such a focus on information management needs to be balanced by new reconceptualised information science curricula. Such curricula it is claimed need to be responsive to the flux and creative potential of the post modern networked age, but also underpinned by principles of humanism, empowerment and critical distance'.*[5]

In this context of fundamental rethinking the re-approaching of structural rules in reforming information science, namely, the recapitulation of old perceptions should be deployed with the new approaches of the meta information era . Simply, as in the composition of a sonata, the musical themes that were introduced earlier should be repeated.

Knowledge capture and knowledge representation models

'An increasing amount of work is now focused on a knowledge-based paradigm in which knowledge is captured as past experiences in the form of case-specific knowledge. This type of knowledge forms the basis for case-based reasoning (CBR) methods, in which past problem solving episodes - cases - are recalled and used to solve new Problems.'[6]

A typical approach to knowledge capture could be defined as the methodological approach presented above. Knowledge capture, as *case-specific knowledge* within the collective existing experience, the so-called *past experience* constitutes the core of a generic paradigm where past experience develops itself the reasoning framework to fulfilling new knowledge representation issues. It seems that a historic human knowledge acquisition can be multiplied in recent times. The highlighted paradigm taking for granted that human knowledge is transmitted throughout the same cultural and social mechanisms and understandings underestimates the invention of the new radical social, scientific and technological breakthroughs.

Moreover, according to this approach all we really needed to implement is the paradigm of the semantic values of the new social backgrounds through the new ontological schemes. That is to say, philosophy of language and semantics would help serve as the bridge between our past knowledge and the new lan-

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[5] Muddiman, Dave. Towards a postmodern context for information and library education// *Education for information*; 1999, Vol. 17 Issue 1, p1-19

[6] Aamodt, A. A knowledge representation system for integration of general and case-specific knowledge //*Tools with Artificial Intelligence*, 1994. Proceedings., Sixth International Conference, 6-9 Nov. 1994 Page(s):836 - 839

guage representation. In other words, construction in the way humans from different knowledge and cultural backgrounds understand words and phrases could be used to create an interesting information tool for incorporating the distinction between word's 'meaning' and 'form'. For instance, the following work referring to a multilingual information system demonstrates a proposition of the discussed paradigm.

'The words and the phrases in a natural language are symbolic representations of real world concepts. Information systems have traditionally associated semantics with keywords to index and retrieve information. However, ambiguity of word meanings and variation of user vocabulary result in unsatisfactory performance of these information systems. An online lexical database, such as the WordNet, distinguishes the "word meanings" (the intended concepts) from the "word forms" (the utterances) in English and establishes several lexical and semantic relations between the word meanings. The database has been used in several knowledge-based applications that attempts to "interpret" a message containing some user request or other forms of information. Similar lexical databases have been developed in other languages also. The major drawback of such lexical databases is that they are confined to a single language' The proposed model 'A domain ontology needs a medium for expression, which usually consists of terminology borrowed from a natural language. Thus, a Knowledge based application becomes susceptible to linguistic and cultural context. In this paper, we present a new knowledge representation technique that distinguishes between the abstract concepts in a domain and their expressions. It can associate expressions from different languages with the concepts in an ontology network. Non-textual symbols and media property specifications can also be used to express the concepts using this technique." [7]

Abstract concepts and their expression from different languages create a new technique in accomplishing knowledge capture and representation. The reference presented extensively above preserve the same methodological paradigm in knowledge representation and capture as the majority of works. It should be underlined that there have been significant ways of understanding the problem of incorporating knew knowledge into dynamic mark up language schemes though unanswered questions of meta-information knowledge sharing era and its conveying has to be answered. In other words, the new world of division and ambiguity reshapes research questions though answers are investigated within the technicalities of knowledge representation. However, the modernism of coherence is gradually and dramatically replaced by the insignificance of the meanings; It is the strangle of an interactivity which paves to respond to the new world and its varieties by incorporating the suspend to the order of the

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[7] Ghosh, H.; Rajarathnam, N.; Chaudhury, S. Knowledge representation for Web based services in a multi-cultural environment //*Web Site Evolution, 2001. Proceedings. 3rd International Workshop.* 10 Nov. 2001 Page(s):7 - 13

socio-economic development forms. The belief that *"[…] a knowledge based application becomes susceptible to linguistic and cultural context"*[8] is an insubstantial interpretation of the new concerns of the postmodernism era. Again, the cultural context is partly connected with the complexity of the new knowledge mechanisms and the representation queries. The prevailing model of a technological determinism and its administration seems to obstacle the manufacturing of new approaches; the argument that new issues in knowledge capture should reconceptualize the whole of cultural processing leaves aside the ontologies that should be built upon the core of a new paradigm.

Discussion

Our inquiry focuses on knowledge theory, knowledge capture and representation in relation to post modernism new imperatives.

This paper proposes the necessity of a new paradigm shift to re-engineering the way the scientific legacy has introduced *'paradigm change'*. What about the incapacities of languages *'especially the ordinary languages of common life due to its preoccupation with the sense world and its consequent vagueness on ultimate matters"*.[9] Again, are *'concept maps'* the *'ultimate matters'*? Here, then, *'Knowledge models'* should be examined within the doctrine of philosophy to express the foundations of language and ontology.

Furthermore, are Kaminsky's *'ontological commitments'*[10] enough to represent the *'ultimate matters'*? The ontological commitment to subject by maintaining sentence structure and fundamentals of language is part of knowledge capture and representation, or knowledge syntax and semantics do not need such commitments? The use of the term 'knowledge capture' suggests that we have already placed in orbit the solar bodies round the observer in opposition to the evolutionary theory of Copernicus who wanted the observer to move round the solar bodies. By reducing our view to the tradition of rationalism, for that matter to Kantian *a priori* Knowledge, and furthermore to Leibnizian objective idealism, that time and space are 'orders' and 'relations', not entities or existences[11] we secure our scientific future. On the other hand, how are we going to capture and represent 'relations' in an extremely ambiguous knowledge environment? Can we find the answers in the construction of S*emantic schemata?*

However, so far, the belief that all propositions are steadily introduced when knowledge is identified within its conceptual context deriving from the histori-

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[8] Ibid.

[9] Morrow, G. 'The theory of Plato' seventh epistle'// *The Philosophical Review*, vol. 38 (4), 1929, pp. 326-349.

[10] Frye, M. (Book review). Language and Ontology by J. Kaminsky//*The Philosophical Review*, vol. 80(3), July 1071, pp.394-396.

[11] Cassirer, E. Newton and Leibniz//*The Philosophical Review*, vol. 52(4), July 1943, pp.366-391.

cal background o rationalism, its linguistic parameters, and why not, its controversies as well as its own *a priori* existence seems to disregard our unfamiliarity with the new world of uncertainties. Thus,the three aspects of knowledge engineering, that is knowledge capture, knowledge storage and knowledge deployment have to be implemented within the new evidently unsecured scientific human environment.

"[…] postmodernism is indefinable is a truism. However, it can be described as a set of critical, strategic and rhetorical practices employing concepts such as difference, repetition, the trace, the simulacrum, and hyper reality to destabilize other concepts such as presence, identity, historical …"[12]

To examine the paper's argument within this definition is equal to an attempt for someone to go into the deep ocean to discover the lost ring. However, our argument proposes a standing point for a new attempt highlighted here as "*Destabilizing other concepts"* in a post modern perspective. This is the key concept that moves our argument to the field we feel confident to discuss. We argue that knowledge engineering should bring into attention the need for such a *"destabilization".* Concepts taken as part of an existing historical framework, identical to the human achievements in the context of the *Enlightenment* forward current technology and culture assessment and propose that rationalism and science development have liberating human progress. In this context, new developments are placed firmly on this historical development. Any inherent irrationalism to human progress is considered as an instant in the advance of the human advanced movement.

Undoubtedly, knowledge engineering is grounded in social epistemology, where *'social paths'* guide to the certainties of modernism. However, the belief that all concepts are well-grounded in the socio-historical context and all they need is the conditions for reshaping the forms of expression overcomes current needs in knowledge sharing. In this way, modernism and the persistence on its theoretical premises leave behind conceptual misconstructions of the rationalist era. Therefore, postmodernism as a movement to 'destabilize' concept expression and representation within the social and epistemological constructions should be associated with current knowledge theory demands.

Finally, by attempting to remain in the certainties of the modernism we might fail to understand current requirements on knowledge theory.

Conclusion

In order to line around the boundaries of our argument, a rough outline of the two tendencies on knowledge theory was attempted. The foundation of our proposal is the reconciliation of the empiric supervisory knowledge with the purely conceptual. The system of knowledge that is for Leibniz a system of truths

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[12] Gary Aylesworth. http://plato.stanford.edu/entries/postmodernism/

should be deductively based on the division and the analysis of concepts within the *'disturb'* of modernism. The ideal of knowledge representation supported by the Kantian deductive method should incorporate the uncertainty of the new world. Knowledge schemata deriving from a system of truths universally accepted in the classic hierarchical representation of the scientific knowledge it is proposed to be uploaded under the postmodernism and its indeterminacy.

We have a long way ahead to connect, however not merely ontologically, the various knowledge engineering epistemological approaches. To connect empiricism and the rationalism, and moreover to find the structures and functions of languages we need to serve our knowledge representation. The reconciliation of the *'observer'* with the *'object'*, the *'harmony'* between the capacities of the knower and the nature of the known, the Kantian *'transcendental idealism'*, after all the belief that the existence following *a priori* knowledge serves fundamental aspects should be incorporated into future   research work altogether with efforts in understanding the new meta information world.

However, the new perspective in knowledge sharing and knowledge management should be examined by the replacement of facts by more *"symbolism in thoughts"*. Now, we need more concepts and syllogism and less pragmatism. This prospect is supposed to bring to the surface the topics all along with the forms that should be addressed in the new knowledge landscape that is shaped by the emerging needs for Knowledge sharing.

In particular, to serve the emerging needs for the unification of concepts and case-based experiences (external knowledge) and for the corporation of fact-based knowledge (implicit knowledge). The new world might recollect the historical outcome as a questionable fact. In this process knowledge engineering should be present.