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# Metaknowledge Management in Inquiring Organizations: Towards a Knowledge Ecology

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## Abstract

Metaknowledge management is the judicious or strategic management or leveraging of the different ways in which we come “to know,” based on Churchman’s (1971) classic work, “The Design of Inquiring Systems” so that we respond to situations in the most appropriate way. It differs from knowledge management in that it is concerned more with how we know what we know than with what we know per se (information and knowledge). By helping individuals and organizations to understand and be aware of their preferred ways of thinking and knowing, in terms of Churchman’s inquiring systems, organizations can leverage their knowledge assets and collective wisdom to increase innovation and responsiveness. This workshop builds on, and provides a means to integrate, the Churchmanian based works of Courtney, Croasdell and Paradice’s (1998) work on Inquiring Organizations, Harrison and Bramson’s (1982) Inquiry Modes, Malhotra’s (1997, 1998) work on Knowledge Management in Inquiring Organizations and Knowledge Ecology, and Mitroff and Linstone’s (1993) work on New Thinking for the Information Age and Unbounded Systems Thinking. Such a synthesis can provide a practical and applied approach to the development of a knowledge ecology conducive to the generation and utilization of actionable knowledge at the individual, group, and organizational/community levels.

## Introduction

Throughout much of the 1990’s, it was widely believed that “knowledge is power” and, as a result, knowledge management became a buzzword. However, with the advent of the new millenium, it has become increasingly apparent that knowledge is not power. As Richard Stuckey (1999, p. 3) explains, “...Knowledge management will work if employees share and reuse information.” He goes on to say that this will happen if upper management can lead the way for an organizational transformation that supports a culture in which ‘knowledge sharing is power,’ by eliminating a culture that has said just the opposite (Stuckey, 1999, p. 3). It is, therefore, as Churchman (1971) pointed out, how the user responds to information and knowledge that matters. And how the user responds to information and knowledge is determined by the way(s) in which we come to know what we know. And it is this, and the different ways in which a person might come to know, and how we apply

those various approaches to a situation, in the most appropriate way, that is important. This is metaknowledge management.

## Inquiring Organizations

Building on Churchman’s insights, Courtney, Croasdell and Paradice (1998) have recast Churchman’s (1971) models of inquiring systems in the language of a learning organization, to form the basis for effective learning organizations which they refer to as inquiring organizations. As they explain, the first maxim for inquiring organizations is that their actions should be based on valid knowledge (Courtney, Croasdell and Paradice, 1998, p. 10). However, they admit that this may be easier said than done, since the ability to validate knowledge in the scientific sense is limited by lack of time and resources, and the unpredictability and complexity that characterizes today’s organizations. They concede that while an inquiring organization should take reasonable and prudent steps to ensure that its actions are based on valid knowledge, often the only reasonable guarantor is a Lockean type of consensus among its members. They go on to point out that any validation of inquiring organizations would seem to need to be substantially different from the kind of validation of knowledge used in scientific inquiring domains. What this new kind of thinking would entail has been described by Mitroff and Linstone (1993) and Malhotra (1997, 1998).

## Metaknowledge Management and the Inquiry Mode Questionnaire (InQ)

In order to understand metaknowledge management, it may be helpful to first define knowledge management. While there are many definitions of knowledge management, it may be briefly defined as “leveraging the collective wisdom to increase innovation and responsiveness” (Koulopoulos, 1999). Furthermore, as Malhotra, cited by Hildebrand, Sept. 15, 1999 in CIO Enterprise Magazine points out, “contrary to popular belief, knowledge management does not equal information technology.” Metaknowledge management, then, is the judicious or strategic management or leveraging of the different ways in which we come “to know,” so that we respond to situations in the most, or at least a somewhat more appropriate way. It differs from knowledge management in that is concerned more with how we know what we know, than with what we know

per se (information and knowledge). Having established this, one highly effective means by which to leverage knowledge is for those involved to be or to become mindful of the various ways that people actually go about gathering data, asking questions, solving problems and making decisions. One then responds to situations in the most appropriate way. Because our greatest strengths can also become our greatest weaknesses, if over-used or used inappropriately, it is important to be cognizant of one's relative preference for using these preferred strategies. This is where Harrison and Bramson's (1982) Inquiry Mode Questionnaire (InQ) and related educational materials can help, through their application in developing our ability to use each of these inquiring systems appropriately, and in working more effectively with others.

The InQ provides a measure of one's relative preference for using Churchman's five inquiring systems. Churchman (1971) outlined five traditions of inquiry basic to Western philosophy ascribed to Hegel, Kant, Singer, Leibniz and Locke. These traditions of thought were later operationalized as inquiry modes by Mitroff and Pondy (1974) and others, and were then applied to be used in situationally appropriate ways by agencies in public policy analysis and decision making. Allen Harrison and Robert Bramson, together with Susan Bramson and Nicholas Parlette (1977, 1997) then designed and developed an instrument and related training materials to measure one's relative preference for these five inquiry modes. These inquiring modes include the Synthesist (Hegel), Idealist (Kant), Pragmatist (E. A. Singer), Analyst (Leibniz) and the Realist (Locke). The resulting Inquiry Mode Questionnaire (InQ) is a measure of how we go about gathering data, asking questions, solving problems and making decisions. The InQ has proven to be especially useful in high knowledge fields where decisions are complex and diversity of approach is a recognized need (Bruvold, Parlette, Bramson and Bramson, 1983). For further elaboration on the InQ and its applications, see Kienholz (1999).

## **Metaknowledge Management: Towards a Knowledge Ecology**

Mulhotra (1997, 1998) argues for the need to expedite the process of change needed in the field of IT enabled knowledge management. As he points out, the human aspects of knowledge creation in current formulations of IT enabled knowledge management have been seriously overlooked. An inquiring systems approach has the necessary scope to free knowledge management from its preprogrammed, convergent and consensus-oriented nature. Systems involving multiple and even conflicting interpretations are often needed to deal effectively with the "wicked environments" of discontinuous change and unpredictability that increasingly characterize IT enabled knowledge

management. Such inquiring systems would include the Kantian Idealist, and the Hegelian Synthesist. As Harrison and Bramson (1982) explain, the Idealist and Synthesist inquiry modes constitute what the Sociologist Max Weber has called "substantive rationality" which is based on personal knowledge of the world. It is derived from intuition, value judgements, what is felt or known without outside authority, and on ethical and moral criteria. "Substantive rationality produces knowledge which "comes to" the individual without analysis. It is referred to as 'classical' rationality in the tradition of the Greeks, especially Socrates, Plato and Aristotle." (Harrison and Bramson, 1982, p. 175)

The concept of metaknowledge management was coined by the present author in response to Malhotra's (1998) article, "Towards a Knowledge Ecology for Organizational White-waters." In this article he addresses two fundamental questions: 1) Can information systems be managed? And 2) if so, can we therefore assume that knowledge can be managed? As Malhotra (1998) explains, the concept of knowledge management is based on predictive models – yet people would be better served through the application of models capable of responding to organizational white-waters that demand "anticipation of surprise." My response to this was that, what was needed, therefore, was a kind of metaknowledge management. Such a management process can be accomplished within Courtney, Croasdel and Paradise's (1998) Inquiring Organizations.

According to Malhotra (1998) knowledge management systems as they are currently conceived, are largely incapable of handling the kind of continuous learning and unlearning processes required by the increasing pace of discontinuous and radical change. Malhotra (1998) anticipates that technology access and utilization will continue to play an important role in this newly anticipated paradigm of knowledge creation and dissemination. However, it is his belief that a better balance between the technological and human elements of future knowledge management systems would facilitate 'the anticipation of surprise' demanded by the organizational white waters that characterize the new world of business. Through the inquiring systems approach of the inquiry mode - based metaknowledge management concept, Malhotra's notion of a knowledge ecology can more readily provide the context, synergy and trust necessary for translating information into actionable knowledge.

## **Summary**

Metaknowledge management is the judicious or strategic management or leveraging of Churchman's inquiring systems so that we respond to situations in the most appropriate way. Through metaknowledge management, individuals, groups and organizations can leverage their knowledge assets and collective wisdom, to

increase innovation and responsiveness for ethically and aesthetically based effectiveness, better than they could through IT enabled knowledge management. Therefore, through this process, much can be accomplished toward the development of a knowledge ecology conducive to the generation and utilization of actionable knowledge at the individual, group and organizational/community levels.

### Workshop Outline (Time: 3 hours)

The session will commence with an introduction to Churchman's inquiring systems and their application to knowledge management and metaknowledge management. Participants will then have the opportunity to determine their relative preference for using each of these five inquiring systems by completing the Inquiry Mode Questionnaire (InQ). After they have scored their own results and charted and interpreted their thinking profile, participants will receive some in-depth instruction on the characteristics of each of the five ways of thinking and some of the more common combinations of inquiry modes. Applications for augmenting, developing, and modifying one's profile will also be addressed (implications exist for knowledge creation). Participants will then be provided instruction on how this new awareness can be applied for improving relationships with others and being more influential (implications exist for knowledge sharing). Following a half-time break, participants will be introduced to a variety of applications of Churchman's inquiring systems for knowledge management and organizational learning. These will be summarized in five matrix-like handouts to assist participants with some tools and techniques for accessing and leveraging implicit and explicit knowledge for such knowledge management processes as data collection, knowledge creation and knowledge sharing. An opportunity to actually practice metaknowledge management will be provided by forming small groups for the purpose of a problem solving exercise relevant to knowledge management. The session will conclude with a question and answer period. (Participants take home a folder filled with very practical, application-oriented materials.)

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