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Toward Reflective Dialogue based Inquiring Systems

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ABSTRACT

This paper explores the notion of an inquiring system based on reflective dialogue. The term “reflective dialogue” draws from “dialogue” as used by J. Krishnamurti, noted philosopher and David Bohm, eminent physicist and philosopher. A reflective dialogue offers an inquiry approach in which self-awareness, intuition, reflection, and listening are key elements; where participants are observing their own thinking processes, biases, self-image, motivation, beliefs, and conditioning while having a dialogue about the issues at hand. Such an approach shines light on the inquirers themselves in their relationship to the inquiry. In this paper, we describe the characteristics of a reflective dialogue based inquiring system. We explore the role of information technology in supporting a dialogue based inquiry and raise questions for further exploration and research.

Keywords

Inquiring systems, dialogue, reflective dialogue, reflective dialogue based inquiring systems

INTRODUCTION

Churchman’s inquiring systems provide a classical philosophic foundation to study problems of various kinds (Churchman, 1971). Leibnizian, Lockean, Kantian, Hegelian, and Singerian inquiry models based on this foundation have, arguably, mostly focused on external problems based on issues that are “out there”. However, external decisions are not merely based on external data. Also reflected in such decisions are the inner beliefs, attitudes, convictions, and emotions of the decision-makers themselves. In this exploratory research, we conceptualize an inquiring systems approach that may be well suited to study the inner mind in its relationship to external problems. This approach is based on the concept of dialogue as proposed by J. Krishnamurti, philosopher and teacher, subsequently developed by David Bohm, physicist and scientific philosopher, and used by various other practitioners and researchers including Senge (1990) in his work on learning organizations. In common parlance, the word “dialogue” suggests a conversation between two or more people in which there is an exchange of ideas, opinions, and perspectives. However, Krishnamurti and Bohm (with some difference) have used the term implying an intuitive process of self-awareness and reflection of one’s thinking during an open inquiry. Such an approach shines light on the inquirers themselves in their relationship to the inquiry. This notion of dialogue is not new. As Senge (1990, p.239) has observed “Dialogue, as it turns out, is a very old idea revered by the ancient Greeks and practiced by many “primitive” societies such as the American Indians. Yet, it is all but lost to the modern world.”

In the remainder of this paper, we will define a reflective dialogue, propose the characteristics of an inquiring system based on the reflective dialogue, and will explore the role of technologies and applications of the system. We end with some observations on the need for further research.

WHAT IS A REFLECTIVE DIALOGUE?

Let us first see what Bohm (1996) means by a dialogue. In his words,

I give a meaning to the word "dialogue" that is somewhat different from what is commonly used. The derivations of words often help to suggest a deeper meaning. "Dialogue" comes from the Greek word dialogos. Logos means 'the word', or in our case we would think of the "meaning of the word". And dia means "through" - it does not mean "two". A dialogue can be among any number of people, not just two. Even one person can have a sense of dialogue within himself, if the spirit of the dialogue is present. The

picture or image that this derivation suggests is of a stream of meaning flowing among and through us and between us. This will make possible a flow of meaning in the whole group, out of which may emerge some new understanding. (p. 6)

In a dialogue, the participants are objectively watching and reflecting on their own thinking processes including the biases, the self-image, and prior conditioning they bring to the dialogue.

Dialogue is really aimed at going into the whole thought process and changing the way the thought process occurs collectively. We haven't really paid much attention to thought as a process. We have engaged in thoughts, but we have only paid attention to the content, not to the process...Our thought, too, is a process, and it requires attention, otherwise it is going to go wrong. (Bohm, 1996, p. 10)

Note that "thought" and thinking processes in Bohm's meaning include not just rational thoughts but also beliefs, emotions, feelings, preconceptions, prejudices, blocks, biases, and reactions. Bohm, Factor, and Garrett (1991) in their classic description of dialogue have emphasized the reflective or mirroring process that occurs in dialogue, labeling it a "proprioception of thought".

It allows a display of thought and meaning that makes possible a kind of collective proprioception or immediate mirroring back of both the content of thought and the less apparent, dynamic structures that govern it. In Dialogue this can be experienced both individually and collectively. Each listener is able to reflect back to each speaker, and to the rest of the group, a view of some of the assumptions and unspoken implications of what is being expressed along with that which is being avoided. It creates the opportunity for each participant to examine the preconceptions, prejudices and the characteristic patterns that lie behind his or her thoughts, opinions, beliefs and feelings, along with the roles he or she tends habitually to play. And it offers an opportunity to share these insights.

In a dialogue, communication is not just happening at a conscious, verbal level but there is awareness of communication at a deeper, collective level, at what Bohm (1996, p.16) calls the unspoken "tacit ground".

THE TACIT PROCESS is common—it is shared. The sharing is not merely the explicit communication and the body language. There is also a deeper tacit process which is common. ... The point is that this notion of dialogue and common consciousness suggests that there is some way out of our collective difficulties. If we can all suspend carrying out our impulses, suspend our assumptions and look at them, then we are all in the same state of consciousness. In dialogue the whole structure of defensiveness and opinions and division can collapse; and suddenly the feeling can change to one of fellowship and friendship, participation and sharing. We are then partaking of the common consciousness.

At this stage, it is useful to introduce the term "reflective dialogue" to denote the primary means of inquiry in a reflective dialogue based inquiring system. We choose to call it a "reflective dialogue" rather than "Bohmian dialogue" or simply "dialogue" for two reasons. First, with the word "reflective" it is made clear that dialogue has a reflective element that emphasizes the mirroring process or proprioception of thought that takes place during a dialogue. Second, if we were to call it a Bohmian dialogue, purists who see Bohm's vision of dialogue as completely agenda-less, unmediated by technologies, completely unpredictable in terms of the direction the dialogue may take, and defined in terms of group size and duration, may take umbrage at our sense of a reflective dialogue, which implies a loose structure in terms of process and issues and a supportive role for information technologies.

We define a reflective dialogue as an objective, shared, leader-less open-ended inquiry by one or more participants of not only content issues in a problem context but also of the thinking processes of the same participants while they are studying, understanding, and discussing the content. This inquiry is conducted with self-awareness, listening, and proprioception, all of which may create a tacit, shared and coherent flow of meaning among the participants from which truth has the possibility to emerge. Note that the reflective dialogue does not guarantee a shared meaning and it certainly cannot guarantee truth. However, it may provide a focus for shared meaning as it brings to the fore any unconscious defending of opinions, turfs, and blocks.

It may also be helpful to understand what we mean by reflective dialogue by clarifying what it is *not*. A reflective dialogue is not a discussion or exchange of multiple perspectives. As Bohm (1996) has pointed out, a discussion focuses on analysis of multiple points of view that are dissected for study whereas the spirit of a dialogue does not lie in analysis, although analysis may perhaps take place during a dialogue. Neither is a dialogue about synthesizing multiple points of view or negotiations to achieve consensus or arguments to reach agreement. Nor is it a debate.

In a dialogue, however, nobody is trying to win. Everybody wins if anybody wins. There is a different sort of spirit to it. In a dialogue, there is no attempt to gain points, or to make your particular view prevail. Rather, whenever any mistake is discovered on the part of anybody, everybody gains. (Bohm, 1996, p.7)

And finally, a dialogue is not like a therapy group of any kind where the focus is on sharing a condition, exchanging sad or happy experiences, or trying to feel good about oneself.

CHARACTERISTICS OF A REFLECTIVE DIALOGUE BASED INQUIRING SYSTEM

A reflective dialogue based inquiring system is conceived as an open system in which one or more participants hold a dialogue on a set of issues, which may lead to insights and wisdom that enables self understanding, issue understanding, and conflict resolution. The characteristics of such a system are summarized in Table 1. Reflection, awareness, intuition, observation, and listening play key roles in this type of inquiry. Techniques, methods, tools, and technologies of various kinds including information technologies may act as enablers in the inquiry process.

Philosophical sources	J. Krishnamurti, David Bohm
Format	Open inquiry approach in which one or more participants hold a dialogue with no leader, no agenda, and no expectation of results
Inputs	Empirical observations, opinions, facts
Given	Individual perspectives, subjective biases, opinions, blocks
Process	Reflective dialogue, reflection, observation, awareness, listening, proprioception, and intuition
Output	Insights, self understanding, issue understanding, potential conflict resolution
Guarantor	Shared meaning and wisdom, coherence based not necessarily on consensus or agreement but on intuited truths and individual insights
IT support	Group support systems, blogs, wikis, knowledge based systems, unobtrusive recording equipment, biofeedback devices, emerging markup languages such as HumanML, and others

Table 1. Summary of Dialogue-based Inquiring Systems

Let us look more closely at the key characteristics of a reflective dialogue based inquiring system.

- The inquiry is aimed at producing wisdom in addition to knowledge.

A reflective dialogue based inquiring system seeks to produce wisdom in addition to knowledge although there is no expectation of results and no results are guaranteed. The American Heritage dictionary defines wisdom in terms of the “ability to discern or judge what is true, right, or lasting” and “insight”. In one sense, true wisdom may be seen as apart from knowledge as when Heraclitus asserts: “Of those whose discourses I have heard, there is not one who attains to the realization that wisdom stands apart from all else (Fragment 108).” However, wisdom may also be seen as the ability to apply knowledge in light of experience, common sense, and insight. In both cases, wisdom and knowledge are not synonymous; a wise person may have little knowledge and a knowledgeable person may be unwise. Wisdom may come about in a reflective dialogue through insights into the human mind in relation to the issues as well as through increased knowledge about the issues. Insight generation may continue even after a dialogue session.

- There is no watertight separation of subject and object.

In a typical inquiry, the object of inquiry is separate from the inquirer who is the subject. A reflective dialogue based inquiring system is an open holistic system which explicitly recognizes that subjects’ minds’ are intertwined with how subjects view the issues. As such, the participant’s self-image, prior beliefs and attachment to those beliefs, cherished ideas, views of other participants, biases, likes and dislikes, all play into how they define and engage into the issues. In many a situation, strong opinions are disguised as truth. Hence, being able to throw light on their own minds in the course of the inquiry into the issues is part of the larger inquiry.

- The spirit of a dialogue is critical.

Perhaps more than with other modes of inquiry, the spirit with which participants meet in a dialogue is crucial to the “success” of the dialogue-based inquiry. All participants must be aware of the focus of the dialogue and must be fully prepared to engage. Self-honesty, to the extent possible at the conscious level, is critical. If a participant enters into a dialogue with the idea of scoring points or dominating with an agenda, the spirit of the dialogue is affected. While participants have a focal set of issues, the spirit of a dialogue implies open-ended inquiry.

- A dialogue-based inquiry involves listening.

Krishnamurti (1975, p.19) has pointed out that one of the major challenges in a dialogue is to be able to listen carefully to oneself and to the other.

There is an art of listening. To be able really to listen, one should abandon or put aside all prejudices, preformulations and daily activities. When you are in a receptive state of mind, things can be easily understood; you are listening when your real attention is given to something. But unfortunately most of us listen through a screen of resistance. We are screened with prejudices, whether religious or spiritual, psychological or scientific; or with our daily worries, desires and fears. And with these for a screen, we listen. Therefore, we listen really to our own noise, to our own sound, not to what is being said. It is extremely difficult to put aside our training, our prejudices, our inclination, our resistance, and, reaching beyond the verbal expression, to listen so that we understand instantaneously.

- Technologies, tools, and techniques may support a dialogue.

In a reflective dialogue based inquiring system, technologies, tools, and techniques play supporting roles in facilitating the inquiry. Particularly for participants with training, knowledge and preferences for specific technologies and methods, it is important that tools and techniques do not assume undue prominence that they shift the focus away from the characteristic processes of watching, learning, listening, and reflecting.

- A dialogue can take place with a single participant.

If the spirit of the dialogue is present, it is possible even for a single person to engage in a dialogue. In such a situation, the inquirer is listening to oneself as well as observing and questioning long-cherished ideas and beliefs as the inquiry progresses. This type of single participant inquiry may make sense for smaller decisions at the individual level as well as for larger-scale decisions with potentially grave consequences for many (e.g., a leader taking a nation into war).

ROLE OF TECHNOLOGIES AND TOOLS

A reflective dialogue based inquiry may be supported by conventional and specialized technologies and tools. Conventional support includes databases, models, decision support systems, expert systems, neural networks, group support systems, and others. These tools may be used by participants in the course of a dialogue to provide supporting facts or to test assumptions. However, more specialized tools could be useful in a dialogue-based inquiry, depending on the specific scenario and the issues being tackled. A preliminary list may include:

- Knowledge base of key questions that challenge common assumptions, patterns, and ways of thinking
- Blogs and wikis that enable participants to continue the dialogue and collaborate in asynchronous ways
- Decision support systems containing personality-analysis tools
- Unobtrusive recording of faces, conversations, and moods for storage and subsequent study
- Tools that track physical changes linked to emotional changes such as biofeedback devices.
- Emerging markup languages such as HumanML. According to the HumanML description at <http://xml.coverpages.org/humanML.html>

The initiative is an XML-based non-proprietary endeavor, open to the contributions of all parties interested in helping define human XML standards. These standards include various aspects of human communication process through markup, including 'gestures', 'thoughts', 'emotions', and 'attitudes'. The project has a goal of "enriching human communications and reducing human misunderstanding" through explicit mechanisms to represent paralinguistic features of human communication. The markup initiative would "provide a trusted means to markup the interpretive process. (1) Reduce miscommunication through a standard framework of referents to descriptions of emotional states (2) Enhance communication by enabling emotional states to be identified and used to query if requests and responses do not conform to

predicted ranges for sequence and frequency within a genre. (3) Create communication through authoring tools that use genre-based schema to organize sequences and frequencies of emotional expressions.

APPLICATIONS

It seems that appropriate areas of application for reflective dialogue based inquiring systems would include unstructured or partially structured problems where decision makers' thinking processes and individual idiosyncrasies have a strong bearing on the solutions, where wisdom is crucial in addition to data, information, and knowledge. Also appropriate would be issues faced by multinational corporations as well as strategic problems faced by intergovernmental organizations where conflicts stem from differences in cultural backgrounds and world views. This implies a wide range of applications – from organizational issues involving management-labor relations, interdepartmental turf wars, and user acceptance of technologies to strategic decisions affecting human lives at individual, family, organizational, national, and global levels. The results can be significant for both the individual and the organization. For example, a CEO deciding on an acquisition may realize in a dialogue-based inquiry setting that behind all the proffered rational reasons for the acquisition lies a deep motivation and hunger for a sense of greater power on his part. Or a leader while considering a decision on whether or not to take his or her country to war, when participating in a reflective-dialogue based inquiry with oneself, may have a deep insight into emotional and psychological factors in his or her self that affect his or her decision but have nothing to do with rational merits if any of invading another nation.

CONCLUSION

Problems, large or small, faced by individuals, organizations, and governments can be best understood if we are aware of our own thinking processes in and of themselves as well as in relationship to the issues we are trying to resolve. From our exploration so far, it is clear that the proposed reflective dialogue based inquiring system focuses on the “inner” mind insofar as it impacts the outer external issues using a dialogue process of awareness, reflection, proprioception, intuition, and listening that aims to produce wisdom and insights as well as shared knowledge about the problem.

Several issues arise for further exploration and research. How does a reflective dialogue based inquiring system relate to Churchman's classic inquiring systems? We have seen that a reflective dialogue is not primarily analysis, debate or dialectic, synthesis, model-building, or a strategy of agreement. While a reflective dialogue in practice may involve all of these elements in part, what is important in the inquiry is to observe the mind while it is engaged in these endeavors. The guarantee that valid knowledge is produced in Churchman's inquiring systems is based on such criteria as internal consistency, consensus, fit between data and model, replicability, objective observation, among others (Courtney, Croasdell, and Paradice, 1998). What is the guarantor in a reflective dialogue based inquiring system? It seems that the shared meaning and wisdom resulting from such an inquiry and a common understanding and coherence based not necessarily on consensus or agreement but on intuited truths and individual insights may provide validity to the inquiry. But how do we measure these outputs, some of which are intangibles? What are the checks and balances in such a system? Can technologies provide means to support insight formation as well as to store a collective “wisdom base”? How do we build reflective dialogue based inquiring systems? What are the mechanisms to ensure they work as intended? Can such systems be used to study divisions and camps within the IS field itself? These are all open questions for research.

It is crucial to ask the difficult questions and to seek ways to understand them. Our world is seeing rapid changes perhaps unsurpassed in their social, economic, global, technological, and environmental ramifications for the future of this planet. Humankind is looking for solutions to seemingly intractable and wicked problems posed by the modern age in the face of looming threats of destruction from a full scale nuclear war and any number of similar potentially catastrophic events. The large-scale problems faced by society at one end of the spectrum, to the smaller scale problems faced by organizations to the relatively micro issues faced by the individual at the other end -- seem to be distinct and different but are actually all connected and related. As individual entities form the collective, be it a family, a business organization, a religious group or a nation, in one sense, the outer world of inequalities and divisions based on race, religion, gender, nationality, class, age and other such factors is a reflection of the state of the inner mind, where the root of psychological division resides. To be relevant and meaningful in a world of change, it is *imperative* that the discipline of information systems extends the scope and reach of its methods, practice and research to go beyond its traditional focus on data, information, and knowledge to understand and support wisdom, no matter how difficult the challenges. Indeed the philosopher would demand nothing less!

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