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Computer Based Inquiring Systems Based Upon Gadamerian Precepts: A Critique

by

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INTRODUCTION

Boland, Tenkasi and Te'eni have written an interesting and provocative article titled "Designing Information Technology to Support Distributed Cognition." My purpose here is to examine the article's recommendation and suggest reasons why these might not be reasonably attainable in practice. I will argue that the proposed inquiring system architecture is philosophically flawed, not workable in actual practice, and most of all, not necessary.

BENEFITS OF GADMERIAN INQUIRING SYSTEMS

Boland, et al conceive of distributed cognition as facilitated by computer software as a marked improvement over our present organizational communications milieu. Their conceptualization is characterized by openness and the generation of large numbers of alternative views on matters of group focus. Using a system that enables the sharing of cognitive maps, organizational thinkers are better able to understand the assumptions and models used by other members of the group. This makes for increased understanding and the sharing of meaning. Plato analogized in the Fable of the Cave that without shared experiential references there can be no shared meaning. Boland, et al, seek to describe a computer-based communication system which, through the use of its various displays, would be able to capture the meanings of the giving mind with such fidelity that something akin to shared experience might be created.

The benefits of such an environment are manifold. As the world becomes more complex and turbulent, strategies designed around stability and predictability are less effective[7]. Complex environments require an increased flexibility to accommodate unpredictable shifts. The impact of globalization, fueled by technological change is creating these discontinuities[8]. In order to effectively respond, an organization needs to mobilize all the cognitive resources at its disposal. Calls for universal participation [15], systems level thinking and conceptualizing [12] and a leadership characterized by organizational transformation [3] are symptomatic of a growing awareness of the problem. Since organizations learn experientially [10], a network that would facilitate the sharing of individual member experience to the group would expedite organizational learning. All these concerns would seem to be answered by the proposed computer-based inquiring system.

ARGUMENTS AGAINST GADAMERIAN INQUIRING SYSTEMS

Philosophical Problems

Yet there are difficulties in the concept as put forward. First of all, I claim that it is philosophically flawed. By this I mean that Boland et al have chosen an unconventional stream of hermeneutics upon which to base their system. There are two competing positions in hermeneutics: the first follows Dilthey and sees interpretation as a method for the human sciences. The methodology for trying to determine what an author meant is a typical problem for this approach. In my mind, this is the more conventional concept of hermeneutics. The second type follows Heidegger and sees interpretation as an "ontological event", an interaction between interpreter and text that is part of the history of what is understood [1, 9]. Under this approach, there is no original meaning discoverable, because the very act of interpretation alters both the message and the reader. Boland, et al, base their understanding on the work of Gadamer, who is a student of Heidegger, and of the same basic school as the post-structuralists Derrida and Foucault. One must

wonder why, since the conventional wisdom in the field is to follow Dilthey, the authors choose Gadamer. What are the ramifications of this decision? Of crucial importance here is to appreciate that for Gadamer, since interpretation is an ontological event and ontology is the study of "being" or reality then, *interpretation creates reality*. Let me expand upon this point by looking closer at the "ontological event" as a basis for interpretation.

In the following discussion, I will use the unfamiliar words and phrases of Heidegger (as translated). While this makes for slower reading, I feel that paraphrasing the translation would remove vital cues from the language and perhaps make his conceptualizations unclear. For Heidegger, the fundamental of reality is something called Being which is, perhaps, best understood as universal existence. Being is purposive and destining, but cannot become in or of itself, but must have man as a collaborator to discover what Being wishes next to become. What we would call creativity is actually Being bringing forth that which is created through the man. Being is allowing itself to be revealed or discovered in this process. Any *veranlassen* (bringing forth) is a manner of human *entbergen* (discovery), but no human *entbergen* can be self contained; Being must attend. In terms of our present discussion, the act of interpretation is also in the manner of creativity. Being is allowing itself to be revealed in the interpretive act, and in the process changing reality in which the message and the interpreter existed. There can be no interpretive "end", for each interpretation yields a changed reality.

I think these notions are fairly exotic to the taste of the average American manager. The idea of some metaphysical entity revealing itself in the daily acting out of organizational activity seems fairly bizarre. Further, this logic leads inevitably to the unavailability of any knowable ultimate meaning, goals or truth. The only possibility is a series of contingent truths linking into some inscrutable pattern as Being discovers itself. This must yield the "hermeneutic circle". The circularity of interpretation concerns the relations of parts to the whole: the interpretation of each part is dependent on the interpretation of the whole. But interpretation is circular in a stronger sense; if every interpretation is itself based upon interpretation, then the circle of interpretation even if not viscous, cannot be escaped [1].

Hans-Georg Gadamer radicalize this notion of the hermeneutic circle, seeing it as a feature of all knowledge and activity. Hermeneutics is then no longer the method of the human sciences but "universal," and interpretation is part of the finite and situated character of all human knowing. Positively, it emphasizes understanding as well as openness, in which prejudices are challenged and horizons broadened.[1] The question I must ask is whether the ontological price is worth it. Can such a notion ever find acceptance in our culture?

Practicality Problems

My second premise is that the proposed system is not workable in actual practice. I cite three basic areas where Boland's ideas are so in conflict with common understanding as to render them virtually useless. These areas are the nature of organizations and organizational management, the nature of knowledge and the nature of civilized society.

The Nature Of Organizations And Organizational Management

Typical organizational identity is characterized by homogenization within, but differentiation between units [4]. Organizations are also beset with characteristic mindsets that are part of the institutional fabric [5, 11]. These create skepticism about external or different world views. This discourages divergence within and encourages divergence from external viewpoints. This is discordant with the espoused view of divulging personal mental maps. Further, the classic definition of management is the attainment of organizational goals in an effective and efficient manner [4]. This generally means finding the shortest distance to the goal, not the most picturesque. At a deeper level, the criteria by which management is judged a very strong driver of organizational behavior[6] and currently are far more pragmatic than the proposed system would allow. Without a significant and perhaps traumatic change in performance criteria, the proposed system could not function. Consider that managerial activity is characterized by variety, brevity and fragmentation

[4]. which stands in stark contrast to the proposal for managers to "regularly reflect on existing assumptions, processes and structures" as the authors suggest.

The Nature Of Knowledge

There is another difficulty created by the difference between how Boland sees knowledge and what we find in organization. When called upon to solve organizational problems, an evolution which most accurately describes the situation Boland thinks most appropriate to his "spider-net" map-sharing software, we find a phenomenon called "sticky information" [14]. Information needed to solve problems is held by individuals. For a number of reasons, this information does not easily transfer from the holder to the person needing it. One reason for this may be that the information is "tacit." That is to say, inculcated into the holder at such a level as to be inarticulable [14]. Were the holder to wish to explain his knowledge, he might well find himself unable to do so, even with the best mind-mapping software. Further, that such sharing requires a level of requisite understanding in the receiver that mitigates against knowledge transfer because it raises the "transfer cost" to an unacceptable level. This raises a deeper issue: If knowledge transfer is blocked because of excessive costs and currently those costs are mainly borne by the receiver of knowledge, is it not reasonable to expect a greater resistance to knowledge sharing if all or most of the cost is placed upon the *holder*? Since the model's mind-mapping software requires the knowledge holder to explicate his understanding in myriad linked pictograms, I would guess that this further burden would make knowledge transfer an arduous and odious process.

The Nature Of Civilized Society

The third of the arguments against practical workability of Boland's idea is my understanding of the nature of civilized society. Shapin explains trust, civil order and the level of explication in the following quote.

The maintenance of everyday order is actively maintained by a complex set of practices that motivated actors use to constitute 'interpretive trust.' These practices notably include trusting as a routine, not inquiring too far or too much, not seeking to go too deeply beyond the 'face value' of things, letting the quality of knowledge be 'sufficient to the day' [13].

It is clear that this is opposite to intent of Boland's inquiring system. We might predict that excessive inquiry has the effect of ungluing relationships, organizations and society, rather than bringing them together. Understanding might foster more divisiveness than does silence.

Gadamerian Inquirers Are Not Required

My last argument is that the proposed system is simply not necessary. In order to maintain close relationships with its most sophisticated customer group, Microsoft has developed the Microsoft Developer Network (MSDN)[7]. This "network" ties extremely influential and knowledgeable customers to Microsoft in such a manner as to facilitate idea sharing in such a facile manner that Microsoft has been able to achieve worldwide eminence in its brief 15 year history. Obviously they have overcome the problems of the managerial environment, the freeing of sticky, tacit, and difficult to transfer information, as well as the issues of social propriety, while avoiding philosophical the quicksand of unending interpretive loops. While making extensive use of information technology, that technology is largely background. Human contact and interaction is the primary experience, and this is reinforced by an unusual amount of feedback to keep the communicator involved[7]. This also facilitates the finding of *meaning* through extensive dialogue. MSDN works on a set of firmly held objectives, specifically:

1. to greatly increase the amount and richness of bi-directional information flow,
2. to open new channels of communication where none exist, and most importantly,
3. that the emphasis of technology be on performing tasks that cannot be accomplished manually, rather than on automating those tasks already performed by humans.

While not designed to increase productivity or reduce costs, this system is contributing to Microsoft's globally recognized success. Perhaps we would be well advised to follow the example Microsoft has set.

CONCLUSION

Is interpersonal communication a task that cannot be accomplished without computer assistance? I think not. In an environment that cultivates trust, mutual appreciation and an awareness of interdependence, the three simple directives of Microsoft can accomplish all the benefits of the proposed computer-based system, while avoiding the philosophical and personal pitfalls. Functional and positive communication is a task best handled in an atmosphere of trust. Perhaps there are levels of trust that correspond to the costs seen to be reasonable in the acquisition and deliverance of knowledge. More "expensive" information transfers only in environments of heightened trust.

Certainly, and colloquially, the benefits of universal verbal understanding have been understood from the time of the story of the Tower of Babel. What does Boland's technique really afford that face to face communication could not? Does it enhance trust? Does it "sweep in" emotive components of a perspective only to afford an unwanted invasion of personal belief? Does it create, then victimize a sub-set of technological "elites", who are first to learn the new methods of idea representation, then the first to be harmed by over-exposure? Does it create an underclass of managers unable or unwilling (as we have discussed) to expose their "cognitive maps" to anonymous scrutiny? In its designed function of complicating issues, can it create an intellectual and emotional quagmire which allows no significant progress? Is there a way to facilitate open dialog within organizations without taking on the burden of the inescapable hermeneutic circle where all meaning is contingent upon all other meaning and life and its activities are degraded by relativistic banality? The answer, it seems to me, lies in better management, not in more invasive technology.