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The Positivist Philosophy of Behavioral Information Systems Research

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Abstract – Information Technology covers a broad spectrum of hardware and software solutions that enable organizations to gather, organize, and analyze data that helps them achieve their goals. It also details technology-based workflow processes that expand the capacity of an organization to deliver services that generate revenue. The four main focuses of IT personnel are business computer network and database management, information security, business software development, and computer tech support. For a guide on tech fundamentals, check out some basics on cables and connectors and the here. As the IT industry evolves to meet the technology demands of today's workplace, different challenges are arising and IT professionals are striving to meet them. Information technology is an essential partner in management of business, regardless of the kind of enterprise operates. Computers needed for storage, transfer, retrieval or transmission of information, to manage business with greater accuracy and efficiency with the assistance of information technology and computer applications.

Keyword: Information, System, Positivist

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1. INTRODUCTION

One of the most pronounced features of contemporary social research - and by this we mean those disciplines concerned with human phenomena (individual and collective) such as psychology, sociology, anthropology and their applied fields of administrative science, education, industrial psychology and industrial sociology These disciplines are marked by a plethora of "schools of thought" each with its own met theoretic assumptions, research methodologies and adherents. Given the complex and indeterminate nature of the social phenomena studied within these fields, the existence of a plurality of perspectives allows the exploration of diverse questions and hence adds breadth as well as depth to the knowledge generated. In behavioral information systems research however, such a diversity of research schools is not evident.

In this study we suggest that while no clear, collective theory binds the information systems discipline, there appears to be an implicit agreement among behavioral information systems researchers about the underlying nature of the phenomena to be investigated and what constitute appropriate research methods. In the next section we provide evidence for such a collective research tradition, and why we believe such a single philosophy towards studying behavioral information systems phenomena can be limiting. In the following two sections we explore two other philosophical traditions, which we believe, can supplement and enrich behavioral information systems research endeavors. We conclude with some general recommendations for the information systems community. That another indicator of a research tradition is the extent to which there exists a set of dominant philosophical assumptions or a worldview that informs the work of the researchers in a discipline. Suggests that a community of scientists share "... a constellation of beliefs, values, and techniques" and that these beliefs " ... circumscribe definitions of 'worthwhile problems' and 'acceptable scientific evidence."' In the following section we show that the discipline of behavioral information systems research has indeed been guided by a dominant worldview, and while this consensus has advanced research into certain kinds of information systems phenomena, we believe that it has also neglected others. As a consequence, this exclusive approach to information systems phenomena has "... limited the type of problems studied, the use of research methods, and the possible research insights that could be obtained"

2. REVIEW OF LITERATURES:

Much of the behavioral information systems research being conducted today is concerned with the ongoing relationship existing between information technology

and individuals and organizations. Implementation studies for example As indicated above, a positivist research perspective is dominant in behavioral information systems research, a dominance which reflects the status of much of Western science. With roots in logical positivism, this perspective reflects the precepts informing the study of natural phenomena Lincoln & Guba 1985:36] The phenomenon of interest is single, tangible and fragmentable, and there is a unique, best description of any chosen aspect of the phenomenon; The researcher and the object of inquiry are independent, and there is a sharp demarcation between observation reports and theory statements; Nomothetic statements (law-like generalizations that are independent of time and context) are possible, which implies that scientific concepts are precise, having fixed and invariant meanings; There exist real, unidirectional cause-effect relationships that are capable of being identified and tested via hypothetic-deductive logic and analysis;

A number of commentators have indicated that the application of these precepts to research on social phenomena is problematic Evered & Louis 198 1; Galliers & Land 1987; Lincoln & Guba 1985; Morgan 1980; Morgan & Srnircich 1980; Weick 19851. Indeed, many researchers practising positivist research would agree that some of these precepts are ideals that are typically compromised in the exigencies of daily research activity. In the following we explore some of the assumptions underlying the positivist precepts. These are only a sampling of topics that one can find under investigation yet all share a common thread. All are concerned with the social processes surrounding the introduction, creation, useldisuse of information technology, as portrayed by Kling & Scacchi's [I9821 metaphor of the ongoing "web of computing." To date, as evidenced by the analysis above, much behavioral information systems research reflects a positivistic orientation, a research tradition that has its roots in the natural sciences. However as we will show, adopting a positivistic research approach to information systems phenomena implies focusing on only certain aspects of the information systems phenomena. An exclusive view is always only a partial view, and the dominance of positivism has limited what and how we have studied information systems in organizations. This has implications not only for the development of theory and our understanding of information systems phenomena, but also for the practice of information systems work. The findings of information systems research filter into the practitioner community and are used as prescriptions for action. Restricted and partial research thus has far-reaching consequences.

3. BELIEFS ABOUT PHYSICAL AND SOCIAL REALITY

Ontologically, positivist information's systems researchers assume an objective physical and social world that exists independently of humans, and whose nature can be unproblematic ally apprehended, characterized, and measured. For example, organizations are understood to have form and a reality beyond the actions of their members. The role of the researcher is to "discover" the objective physical and social reality by crafting precise instruments that will detect and gauge those dimensions of reality that interest the researcher. It is assumed, explicitly or implicitly, that there is a one-to-one correspondence between the constructs of a researcher's model and the "objects" or "features" of interest in the world. Understanding phenomena is a problem of measurement, of constructing an appropriate and accurate set of instruments to capture the essence of the phenomenon. The researcher herself is seen to play a passive, neutral role in this investigation, and does not intervene in the phenomenon of interest. For example, when researchers investigate the relationship between information technology and organizational structure, they assume structure to be objective and hence capable of being represented via a number of researcher-devised constructs and measures such as: span of control, division of labor, centralization, formalization, and hierarchical levels.

Most researchers subscribing to the positivist perspective assume that human action is intentional and rational, or at the least bounded rational. The assumption about social reality is that humans interact in relatively stable and orderly ways, and that conflict and contradiction are not endemic to organizations or society. When conflict does occur, its effect is seen to be dysfunctional to the system (organization, society, etc.) and hence as something to be suppressed or overcome. Conflict is seen as serving to reveal some discrepancy in the system, as a symptom of some problem, which can then be corrected, hence preventing some potentially disruptive system breakdown. The positivist research perspective tends to disregard the historical context of phenomena; hence such research is rooted in the status quo.

4. ABOUT THE RELATIONSHIP BETWEEN THEORY AND PRACTICE

The positivist research approach towards the relationship between theory and practice is that the researcher is independent of the phenomena being studied, and hence assumes a value-neutral stance. As an impartial observer, the researcher can objectively evaluate efficient and effective actions or processes, but should not get involved in moral judgements or subjective opinion. That is, researchers can comment on means, but not ends. However, as Weber [I9471 recognized, the very distinction between fact and value is itself a value judgement. This is typically not recognized, or at least, not acknowledged by researchers working out of the positivist perspective.

Another issue not recognized by positivist researchers is the extent to which they are inherently implicated in their research subject matter. This pertains to the role played by social research in

practice. Unlike the natural sciences where it can be argued that there exists independence between researcher and phenomenon of study, the same assertion cannot be made for the social sciences. While the results of natural science do not impinge on and change the nature of the phenomena studied, the results of social science do enter into the discourse of everyday human reality, and clearly can and do transform the nature of these phenomena. As Giddens [1987: 191 notes, in the social sciences, unlike in natural science, there is no way of keeping the concepts, theories, and findings of the researchers " ... free from appropriation by lay actors." Clearly behavioral information systems research enters into the very constitution of the phenomena it studies, in a manner not available to natural science. Indeed, a major goal of information systems research is to have an impact on information systems practice, that is, the findings of information systems research are intended to inform and improve the development and use of information systems in organizations. There clearly is a reciprocal and reflexive relationship between information systems research and social reality; the two are not independent of each other. In the light of this, claims of objectivity and value-neutrality in behavioral information systems research are misleading. The design and use of information technology in organizations however, is inevitably embedded in social contexts, marked by time, locale, politics, and culture. Neglecting these influences can only reveal an incomplete picture of information systems phenomena Likewise, the positivist aim to explain and predict external reality implies that people are not active makers of their physical and social reality. Positivistic research techniques encourage deterministic explanations of phenomena, in that these explanations emerge from interactions between the researcher and his subjects, where the researcher, by definition, dominates the relationship. In the search for causal relations the positivist researcher focuses on the validity and control of the research procedures, and hence adopts a predefined and circumscribed stance towards the phenomenon being investigated. Such a posture is not conducive to the discovery and understanding of non-deterministic and reciprocal relationships. Laboratory subjects and survey respondents act and react mechanically to the research stimulus. Rowan [1973:210] notes: "Research can only discover one-sided things if it insists on setting up one-sided relationships ... You only get answers to those questions you are asking." Only if we have strong reason to suspect that the relationships underlying our phenomena of interest - information technology and human life - are determinate and one-dimensionally causal, can we utilize such positivist techniques with confidence. As Markus & Robey [I9881 elucidate, there is no reason to suspect that this is the case with information technology and human life. However, despite the limitations, this stream of research has institutionalized certain criteria of validity, rigor, and replicability in the conduct of scientific research. It has enforced standards of quality in empirical research, and has sought to build a tradition of cumulative knowledge across the various disciplines in which it is practiced.

CONCLUSION:

The Information Evolution Model, by contrast, allows companies to realistically assess the maturity of their current information, providing a clear roadmap for managing their evolution process without ripping the infrastructure apart. A proactive information management strategy can build and maintain a level of competitive advantage that is sustainable. That advantage has a positive impact where it's felt the strongest: on the bottom line

Despite the positives associated with the role of MIS in decision-making process, there are a few challenges that are believed to limit the efficacy of MIS. These include:

- The dynamic nature of MIS makes it difficult for some organizations to keep up with the principles, strategies, propositions or even ideas.
- Different situations call for different decisions to be made. This poses challenges to MIS theorists since some MIS tend to not be adaptable
- The institutionalization, programming, monitoring and evaluating MIS requires a lot of expertise something which numerous organizations lack.
- The running of MIS programs tends to be relatively costly for some organization especially small ones who are not well-endowed financially.
- MIS is more of a science-oriented field while business is art-oriented. Consequently, finding a middle ground where the two can be linked is quite challenging to some people.
- Most organizations do not a well-defined decision making system. So even with the right MIS tools, very little can be achieved in terms of improving decision-making.

REFERENCES

Baroudi, Jack J. (1985). "The Impact of Role Variables on Information Systems Personnel Work Attitudes and Intentions," MIS Quarterly, December 1985, pp. 341-365.

Bartol, Kathryn M. (1983). "Turnover among DP Personnel: A Causal Analysis," Communications of the ACM, October 1983, pp. 807-811.

Bemstein, Richard J. (1985). Bevond Objectivism and Relativism University of Pennsylvania Press; Philadelphia PA.

Benbasat Izak, Goldstein David & Mead Melissa, (1987). "The Case Research Strategy in Studies of Information Systems," MIS Quarterly, Vol. 1 1, No. 3 : pp. 369-387.

Benbasat, Izak. (1985). "An Analysis of Research Methodologies," in F.Warren McFarlan ed. The Information Svstems Research Challenye Harvard Business School Press: Boston, pp. 47- 85.

Benson, J, Kenneth (1983). "Paradigm and Praxis in Organizational Analysis, Research in Organizational Behavior, Vol. 5,: pp. 33-56.

Berger, Peter & Luckrnann, and Thomas (1966). The Social Construction of Realitv Doubleday Books: New York.

Bernstein, Richard J. (1978). The Restructuring of Social and Political Theory University of Pennsylvania Press; Philadelphia PA.

Bjgm-Anderson, N. & Pederson, P.H. (1980). "Computer Facilitated Changes in the Management Power Structure," Accounting, Organizations and Society, Vol. 5, No. 2, pp. 203-216.

Boland, Richard J. (1978). "The Process and Product of Systems Design," Management Science, pp. 887-898.

Boland, Richard J. (1979). "Control, Causality and Information Systems Requirements," Accounting, Organizations and Society, Vol. 4, No. 3, pp. 259-272.

Lamb, R., Sawyer, S., & Kling, R. (2000). A social informatics perspective on socio-technical networks. Study presented at the American Conference on Information Systems, Long Beach, CA, and Retrieved April 8, 2006, from http://lamb.cba.hawaii.edu/pubs/stnwtppr.htm.

Robey, Roy J1 (1978). Realist Theo~ of Science Brighton, UK: Harvester Press.