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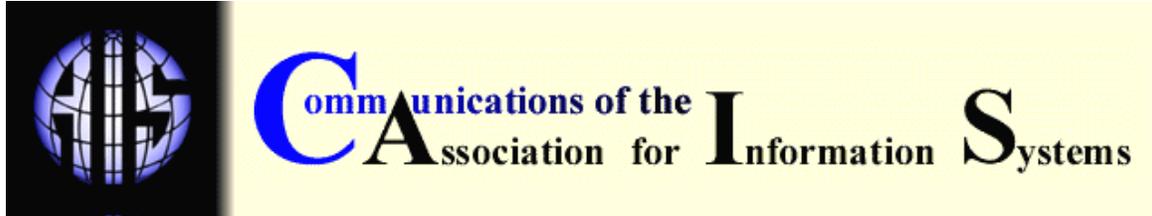
Fred Niederman
Saint Louis University

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"…BUT IS IT MIS?"

Fred Niederman
Cook School of Business
Saint Louis University
niederfa@slu.edu

I. INTRODUCTION

The words ring still in my ears. "Yes, but is it MIS?"

As do many universities, our Ph.D. program had a weekly research workshop. During a significant number of Friday afternoon workshops, while students, faculty, or visitors were opening up for questions regarding their research proposals, drafts, or finished papers, the question would ring out: "Yes, but is it MIS?" Frequently, the question was posed by Professor Gary Dickson. Generally it was also followed by a period of silence and contemplation. What transpired after that varied. On some occasions we discovered that the presenter took it for granted that the topic was, of course, within the boundary of MIS research. The presenter's reaction to the idea of having to explain, justify, or persuade that the chosen project was actually "MIS" was always interesting. It ranged from enthusiasm at taking on a strange challenge to surprise at receiving such a confrontational question. This was as much the case for highly managerial papers where the "artifact" appeared as only a distant reference as it was for highly technical papers where the organizational application of said artifact was assumed away as in an economist's fable.

The moment of consideration typically was followed by a verbal free-for-all about not only what the MIS research field "is" (or "was" back in the 1980s when I was a doctoral student) but also what it ought to be. This discussion was of particular importance to me personally as I was about to embark in the more specialized area of what has come to be called "information technology personnel," a field where much of the work strongly resembles traditional human resource management research with its focus trained particularly on workers specializing in IT.[1] Except in the case where IT personnel researchers are testing particular software used in training end users (which resembles education as well as human resource management research), manipulation of an artifact is not typically a central issue. This is of concern, of course, due to the

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[1] The term IT is intended to be used as distinct from MIS. The term IT personnel is a commonly used replacement for the older term "computer personnel" and reflects the notion of individuals who work closely with computing resources but in an ever broadening array of roles. IT is consciously used in this essay in several places when referring specifically to artifacts comprised of technologies such as hardware and software. MIS is used to indicate the embedded artifacts in a social system including people in varied roles, data and information whether formally or informally collected, and procedures both tacit and explicit that guide routine and extraordinary usage of IT. Concerns regarding the responsibility to provide information resources throughout an organization are also referred to as MIS in this essay.

strong arguments for inclusion of an IT artifact for defining research as being appropriate for top MIS journals [e.g., Benbasat and Zmud 2003]. Typically, IT personnel research does not pertain to any particular application but rather to the people who create, maintain, use, promote, and manage the portfolio of such applications, the infrastructures on which they run, and much of the approach to integrating these into organizations. However, one might argue that IT personnel are central to the issues of MIS as an organizational function providing a set of information services within organizations. Surely, this is difficult to accomplish without adequate human staffing. As with many topics that are not necessarily directly in the central tendency of MIS research, such research could potentially find a home in management publications, but my observation is that, historically, human resource professionals are mostly interested in the general truths that apply across all workers rather than to workers in one particular industry or family of jobs. In contrast, MIS has always emphasized its multidisciplinary flavor. It seems to become the home for many hybrid topics that are not precisely MIS but are not particularly wanted for inclusion by other disciplines. As a result it brings many energetic and creative people with hybrid ideas [DeSanctis 2003]. However, as Benbasat and Zmud [2003] rightly point out, it can also create confusion and uncertainty about what MIS is and, therefore, what need there is for it.

From the perspective of a doctoral student, there were several inferences to be made from the "Is it MIS?" question and the discussions that followed. First were inferences pertaining to the nature of MIS as a system (or set of systems) focusing on issues including purpose and boundary. Second were inferences about the role and responsibilities of the individual researcher relative to the MIS community. Third were inferences about science and the nature of inquiry. This dimension considered, even if it is MIS, does it support MIS as a worthy component of a larger world of inquiry. In this article, I briefly address these issues and conclude with some thoughts about Gary Dickson's contribution through this and similar questions on the MIS field.

II. THE NATURE OF THE MIS FIELD

In the early days, much attention was given to developing a framework of the relevant variables and issues comprising MIS. Several notable authors [e.g., Ives, Hamilton and Davis 1980; Mason and Mitroff 1973; and Nolan and Wetherbe 1980] proposed frameworks emphasizing different aspects of the MIS field. Their common denominator, in my view, was the inclusion of components centering on information technology (the artifact and its attributes) and how these were affected by variables such as the people who used the information technology, the processes by which such technologies were created and introduced into organizations, the environment, particularly the departments and organizations in which such information technologies were deployed, and the outcomes that derived from the use and nonuse of these information technologies. In light of the question for particular projects: "Is it MIS?" one immediate unresolved question was – does every study have to address each and every one of these components? The typical response was that individual studies could focus on a subset of components, and then be added to a "master framework" such that their accumulation would represent the field's body of knowledge. There was no specification regarding who would be holder of the "master framework" or how studies would be added, but I visualized this concept via the metaphor of a mosaic where studies form the stones and their integration shows an overall pattern. Even though all components would not be necessary for every study, a certain minimal relevance to the array of components would be important for later integration. Clearly studies purely about organizations and their dynamics would belong in the management field while those about optimizing movement of data between the registers and arithmetic-logic unit would probably be in the domain of computer science or operations research.

Discussions regarding the boundaries of MIS and whether a particular topic or approach is in the central tendency, the periphery, or outside the field may seem rather pedantic. After all, good research pushes forward the frontier of knowledge whatever category we might want to fit it into. However, such questions have both intended and unintended consequences for MIS scholars. The questions affect the range of papers considered appropriate for a particular journal as well as the range of journals representing the field. Differences in this definition can have decisive

implications for acceptance or rejection of work by particular authors (and, thus, on the ease or difficulty faced in approaching tenure and promotion petitions). This approach to the nature of MIS also affects the ability of the faculty in an MIS department to argue for acceptance among peers inside business, liberal arts, or information schools. For example, as the boundary with management research is blurred, faculty external to MIS may expect similar "normal" science approaches to research methods even if not relevant in an emerging and unknown work domain. As the boundary with computer science is blurred, publications in conference proceedings, highly valued in CS, may be rejected in the business school environment. Design science and "proof of concept" studies would be likely to look unfamiliar to other business faculty reviewers. From the perspective of mentoring doctoral students and junior faculty, a realistic assessment of varied topics and approaches along these or similar lines allows for more conscious choices regarding targets for research study as well as the level and kind of risks presented.

III. THE ROLE OF THE INDIVIDUAL IN THE MIS FIELD

Such considerations about the nature of the field lead to additional discussion regarding the individual's role in such a field. For its first 15 to 20 years, the number of faculty in the MIS field remained fairly small. The founders seemed to have quite a pioneering spirit, and Gary Dickson was one of the founders. If there had never been a conference for the field, just go ahead and invent the International Conference on Information Systems. Feel free to draw lessons from other conferences such as the Academy of Management, but also feel free to tailor the event to the characteristics of the particular group. If there is no major publication, go ahead and originate the *MIS Quarterly*. I think that these pioneering activities bred into the founders of the field a sense of ownership that many of us following do not experience in the same way. We have inherited many institutions along with their customs and the momentum of their procedures. We may accept institutions as they are, push for change, or call for an overthrow, but we no longer have the vacant territory to fill with the exhilaration and responsibilities that come with it. Perhaps this is why there are as many subfields as there are in MIS. The subfields create a new, if smaller, fresh territory for building our own new institutions.

One result of interacting with the founders of the field was an urgent sense of inquiry not only for the creation of individual outputs but for the way that these combined into an overarching pattern. Many of us become extremely involved in our own particular research area. Perhaps this is necessary for devoting the time and attention it takes to become truly expert in a particular area. However, at the extreme, if this is a universal attitude, the field faces the danger of fractionalization. It faces the danger of being a set of beautiful pebbles that are not displayed in the coherent pattern of a mosaic. Of course, an overemphasis on the "universal attitude" would have a plethora of frameworks without any quality work available to form the picture. This conceptualization creates the interesting tension for each individual researcher to act independently yet in accord to varying degrees with the larger patterns of "the field." In my observation, founders of the field, of course, varied in their commitment to individual research and integration with other work, however, the prevailing theme seemed to be a strong sense of obligation to make choices that would create positive precedent or "case law" while doing strong individual work. At the least, there was consciousness and debate regarding these roles and the outcomes that different attitudes would produce.

In asking "But is that MIS?" the concern for the shaping of the field was reinforced along with other considerations for developing quality research. As the field has grown we each have come to represent a smaller percentage of the total. The sense that our individual decisions have an impact on the nature of the field may become lost and a sense that the field is less important than our individual work area may take hold. There is something lost in this tendency. Consider the field of management. It is true that some might see themselves in entrepreneurship or organizational behavior; however, my observation is that there is a role and identity around management per se that is helpful for individual decision making and also for representing the field within the larger business school environment. This suggests that there is value in building some coherent appreciation for the full range of MIS topics. Those of us leaning toward the view

of MIS as an organizational function may need to extend greater appreciation for the technical knowledge needed to optimize hardware performance or integrate nonstandardized equipment. Those leaning toward the tools and methods by which data is stored, retrieved, and presented for use may, similarly, benefit from a greater understanding of the contribution of contextual factors in the success or failure of artifacts in the organizational environment. For information systems to perform to their potential, both technical and organizational expertise are necessary and only on lucky occasions is either alone sufficient.

For boundary spanners who publish in management and MIS or in computer science and MIS, it may be difficult to see the benefits of identifying with MIS. This is one of the challenges of our field given how many of us work in an area that has some cross-disciplinary content almost by definition. This is also a challenge for each of us to consider in developing relationships with doctoral students and junior faculty. How do we convey the sense of interaction between individual and field in our own choices and actions? How do we cultivate this sense of contributing to a greater enterprise while focusing on individual achievements?

IV. INFERENCES ABOUT THE NATURE OF SCIENCE

Consideration of the nature of the field and of the individual's role in the field leads to the third area of inference based on the question "But is it MIS?" Assuming we have at least a working definition of the field and a set of our own preferred work domains, what are the larger purposes for which we perform this work? Another way of putting this is: How do we ensure that an internally successful MIS domain is making a contribution to the larger world of inquiry? Alternatively, we can ask: Who do we serve/who (if anyone) benefits from our efforts? We consider in reviewing papers whether the study has made a contribution. I have not frequently heard it asked: what constitutes a contribution? Just as we might ask whether a study needs to consider all of the interacting elements within an MIS framework, does it need to contribute to each of the potential stakeholders in the MIS academic enterprise?

Considering the initial view of MIS, theoretical contribution can be made by inventing or extending knowledge about individual components such as the artifact, the organizational context, or the relations between them. But for these theoretical contributions to matter much outside of our own social group there should be a connection between these constructs and the experiences and concerns of people (particularly MIS professionals and users of MIS products as these arguably are among our main stakeholders) in their own setting. Are these elements – the artifact, the users, the organizational context, the task, measures of outcome, as well as the related variables pertaining to the responsibilities of an MIS program in organizations – of importance to anyone? If we document relationships between these constructs, can this make a difference to anyone beside ourselves? It is difficult to imagine that discovery of better ways to interact with information technology, to construct and deploy information technology, or to organize and implement an MIS presence in organizations would not have an impact on the many thousands of organizations that use and are becoming dependent on information technology.

I would argue that overall we serve a number of different masters, but that no particular study or research stream needs to address all of them. Consider that first, we serve ourselves. At a recent panel discussion at AMCIS [see Benamati et al. 2007], the question was raised, why are so few MIS faculty participants in the MIS education track? Consider, as the foremost readers (consumers) of our own literature, what is it that most of us do most of the time? We transfer existing knowledge and processes for creating new knowledge to our students. Research about the MIS field, whether directly or indirectly aimed at doing a better job in this area, seems inherently important. We serve ourselves by creating a forum for our knowledge creation work that can be appreciated and rewarded (or not) by ourselves and other scholars evaluating our work. The diversity and quality of our work has consequences for the degree to which we push ourselves to do rigorous and meaningful work as well as our ability to "sell" our output to other academic constituents. We also serve a subset of MIS practitioners directly and many others indirectly. Institutions such as ACM and SIM include significant numbers of practitioners and at

least a subset of MIS scholars interact in some level of detail with them. Additionally, we provide a body of knowledge that helps shape some of the mental models of MIS and the role of information in organizations to both MIS and business (and other) professionals.

It is instructive to probe practitioners regarding the sort of research they find "useful." I observe at least two types. There are some research areas that some more academically inclined practitioners find to be of direct value. In fact they frequently pay organizations like the Gartner Group handsomely for this sort of research. Practitioners seem interested in perishable information that shows the current state of their environment and in information that suggests policies or practices that might give them an edge in generating revenue, lowering costs, better serving their market, or advancing their own career. The thrust of this research is not typically general knowledge applicable everywhere or even contingent knowledge true under given circumstances, but rather ideas that can be quickly applied in the general mix of ongoing activities.

For example, in my own area of IT personnel, some practitioners find discussions regarding "how to be successful at offshoring," "how to retain quality employees," and "what are the trends in needed skills and the availability of newcomers to the field," to be of interest. These and related topics show up frequently on the "key issues" studies. This research occurs sometimes as a kind of checklist of things to take care of (the nine steps in creating an offshoring project) or as a kind of mental stimulation challenging them to consider whether findings in another setting apply (or can be applied) to their own situation. At its best, such research is based on extensive investigation and observation in related circumstance. Unfortunately, much of this research looks quite dated 10 years after publication if it focused on technologies that have been replaced with more advanced versions.

Another type of research consumption is rather more indirect. In this case the practitioner does not focus on particular research studies, but rather looks for summaries of them. The central tendency of this is the researcher who combines, extrapolates, and synthesizes many works (possibly including her or his original work) to present a clear picture based on diverse work. I see this sort of article in publications like *Harvard Business Review*, *Sloan Management Review*, the *California Management Review*, and sometimes *Communications of ACM* and IEEE's *Computer*. The practitioner, in my experience, is willing to trust that we have used appropriate methods duly screened, but wants to know the results. The concern is not for "science" and proof, but for provocative ideas that will increase by any reasonable measure the probability of success in future activities. It isn't even necessarily about competitive advantage in terms of doing better than others; it may be just about doing one's own best. Within the MIS practitioner community, there may also be direct consumption of other research pertaining more directly to "the artifact" such as the utility of particular components of e-commerce sites, the value of particular approaches to system development, cases pertaining to organizational utilization of information technology, or ways to evaluate artifacts such as medical records systems.

Finally, I think we serve the future. I like to remind students that binary number systems were invented long before the computer gave them obvious utility. I like to think that our research is like the creation of bricks that may someday be used in buildings not yet conceived. We cannot fully predict the ways that our thinking, theorizing, and observations will trigger future insights with whatever impact they may have on society.

Given that we have multiple stakeholders (probably including more than those discussed above such as funding sources like NSF and individual universities) each individual researcher decides which to address or how to balance among them. This decision may or may not be conscious, but can be inferred from the nature of their work and the journals that they target. We probably neither can nor should try to create targets for the proportion of each that we address as a field, however, we should probably monitor whether any constituency seems to be getting systematically overlooked. On the one hand we may celebrate business and its ability to provide IT goods and services, but we may also need to be critical since consumers of such goods and services suffer from buggy offerings or inadequate competition among vendors.

V. CONCLUSION

The lessons I learned from early mentors, including Gary Dickson, were not specific answers to the many questions posed in this essay. Rather they involved posing the questions themselves. I read a good many journal submitted manuscripts asking myself whether they are appropriately "MIS" with varied answers depending on the paper. I do not have a formal definition. I am not sure I could formulate such a definition. I am confident, in fact, that a randomly selected sample of 12 MIS researchers would derive four or five and perhaps as many as 12 distinct definitions. But I do believe the question is worth asking for each review. Similarly, I think it is always worth considering the role of the individual and individual work within the MIS field. The health of the MIS field might withstand a significant number of researchers unconcerned for the field overall; but might not withstand close to all of the researchers being unconcerned for the field and their contribution to it. A free market perspective might suggest that the collection of individual decisions will formulate the best array of work. Alternatively, leaders (those taking some responsibility for the health of the field) may want to encourage growth in promising areas counter to temporary fashion; they may want to insure that the range of work speaks to the range of stakeholders. They may also want to reflect upon the health of our common institutions, insuring that they are working as designed, given evolving needs and changing membership. By the same token, such "leaders" need accountability such that their actions do indeed move the field forward rather than onto tangents that are not helpful.

On a personal note, I believe Gary exemplified the posing of such questions regarding the nature of MIS, the individual's role, and the meaning of our work. This is a legacy that, I believe, is of value to continue to propagate. But in my experience, he also showed great concern for the community of people aside from work life. It was not infrequent that he created opportunities for colleagues and students to engage in research or provide service to others. Both personally and to my observation of his interaction with other folks, it was not uncommon for him to provide counsel and aid regarding life choices. On occasion such advice might be delivered with uncommon frankness, but I have not yet gone wrong over the years following his suggestions.

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ABOUT THE AUTHOR

Fred Niederman is Shaughnessy Endowed Professor in the Department of Decision Sciences and MIS of the Cook School of Business at Saint Louis University, 3674 Lindell Blvd, St. Louis, Missouri, 63108 USA, niederfa@slu.edu. His primary research areas pertain to global MIS, IT personnel, and using MIS to support teams and groups. He has published articles including *MIS Quarterly*, *Communications of the ACM*, *Communications of AIS*, *Journal of Strategic Information Systems, Group Decision and Negotiation, Human Resource Management ,* and *Decision Sciences*; presented at numerous conferences; serves as associate editor of the *Journal of Global Information Systems* and *Communications of AIS*, and has edited or co-edited several special issues including *Communications of the ACM*, *Journal of Global Information Systems*, *DATA BASE*, *Journal of Database Management*, and *Human Resource Management Journal*. Dr. Niederman has a Ph.D. in business administration, concentration in MIS, from the University of Minnesota, 1990.

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