

2008

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Recommended Citation

Somers, Mark John, "Paradigm and Pluralism: Using Theory from Occupational Sociology and the Sociology of the Professions to Frame an Identity for IS" (2008). *AMCIS 2008 Proceedings*. 396.
<http://aisel.aisnet.org/amcis2008/396>

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Paradigm and Pluralism: Using Theory from Occupational Sociology and the Sociology of the Professions to Frame an Identity for IS

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ABSTRACT

Concern that high levels of pluralism within IS have frustrated the development of a strong identity are evident in the literature. Rather than proposing an identity for IS, this paper uses theory and research from occupational sociology and the sociology of professions to analyze the processes involved in establishing boundaries for the field, for defining errors of inclusion and exclusion, and for shaping an IS identity. It is argued that prior work misapplies an organizational metaphor to IS and this misspecification excludes important processes in the evolution of professions including level of paradigm development, culture and control within professions, and the role of professions in social status hierarchies. The paper concludes with a discussion of the challenges facing IS and suggestions for addressing them.

Keywords

IS Identity, paradigm development, occupations and professions, socialization

INTRODUCTION

Like other young academic disciplines, Information Systems (IS) is characterized by a pluralism which manifests itself in diverse perspectives and methods of inquiry; that is, the discipline has grown out of previous research and theory in related areas and to some extent represents an amalgam of research traditions, theories, and methodologies. As such, it is hardly surprising that there are concerns about schisms and factions (cf., Weber, 2004) as well as debate about if and how diverse philosophies and methodologies should or can be integrated (cf., Agarwal & Lucas, 2005).

As might be expected, there is an established literature within IS that is concerned with both epistemology and research methodology focused on issues such as generalizability, realism vs. relativism, quantitative vs. qualitative methodologies, measurement theory, and internal vs. external validity. In exploring accepted methods of inquiry for IS and addressing questions such as "What is knowledge?" and "What are acceptable means to establish it?" a thorny question arose which has proven to be more problematic. That question is "What is IS?" and involves the critical issues of identity and legitimacy. As such, the question shifted from how IS scholars should be conducting research to the types of research that they should be conducting.

Given the pluralism characteristic of the field, it is not surprising that there is no clear consensus about how to answer that question. Also not surprisingly, the vigorous debate triggered by Benbasat & Zmud's (2003) paper, which tackles these issues head-on has generated a wide range of seemingly incompatible views. This is an especially difficult challenge because it involves building consensus in a pluralistic discipline, and because as Benbasat & Zmud (2003) astutely point out, it involves facing issues of inclusion and exclusion in terms of IS's core intellectual domain.

This paper is focused on paradigm, identity and pluralism, but rather than "drawing lines in the sand" to define what IS is (and is not), it examines how such boundaries are formed. It then identifies defining characteristics of IS and uses them as areas to build consensus. Most importantly, it differs from previous work in that IS is defined as a profession within the societal status hierarchy. Thus, the critical issues of socialization and training of students and the practice component of IS are explicitly discussed as important elements of the discipline's identity. In this regard, it is argued that the organizational metaphor underlying some prior work is misplaced and IS is most profitably viewed and analyzed as a profession.

IS AS A PROFESSION

The issue of establishing an identity for IS has been framed in terms of institutional theory (cf., Aldrich, 1999) or sociotechnical systems theory (Alter, 2003). Benbasat and Zmud (2003) introduce their argument for shaping an identity for IS with the heading of "The Need for Establishing an Organizational Identity for IS" and go on to argue that IS scholars are a "community of nascent entrepreneurs attempting to create a new population...within an organizational field populated by other scholarly disciplines or populations." (p. 184) Similarly, Atler (2003), while considering the status of IS in academia, does not go beyond the organizational metaphor to analyze how disciplines in academia gain and lose status.

As such, both of these papers address two important issues related to the identity of IS, boundaries and legitimacy, using an organizational metaphor as a framework. Benbasat & Zmud (2003) go on to develop an IT artifact and an associated nomological network to address the issue of legitimacy which, in turn, is used to shape an identity for IS. Not surprisingly, these ideas have generated considerable debate with views ranging from general agreement, to agreement that boundaries are needed but not where Benbasat & Zmud set them, to support for pluralism and its purported benefits (Agrawal & Lucas, 2005).

It should be noted that although Benbasat & Zmud (2003) have sparked considerable debate within IS, it is a mistake to suggest that this debate is restricted to their ideas and proposals. Indeed, the broader issue of the degree to which IS should embrace pluralism is an ongoing debate with a strong case being made for seeking novelty, innovation and new theory (cf., Dunfer, 2003; El Sawy, 2003; Meyers, 2003) raising the issue of where IS's boundaries should be set.

Establishing boundaries is a critical issue for IS and a different approach to determining the domain of IS is presented here. To continue, although there is no question that Benbasat & Zmud (2003) have written an important paper, we believe that the theory on which it is based has been misapplied; that is, there is a specification error such that theory developed for organizations is being misapplied to a profession. This misspecification is serious because professions and organizations are different entities that operate differently within societies. More to the point, the critical issues of legitimacy and boundaries that Benbasat & Zmud (2003) insightfully raise with respect to IS operate differently for professions so that different concepts are needed to understand how occupations establish boundaries and gain legitimacy.

It is argued here that IS is not an organization and that IS scholars are not a community of nascent entrepreneurs. Rather, the position is taken that IS is a profession that operates within the societal status hierarchy as such. Thus, we argue that the concepts developed by Aldrich (1999) that Benbasat & Zmud (2003) use to understand the development of IS as a discipline are not relevant because they do not generalize to the societal level of analysis and because occupations are qualitatively different from organizations.

Status Hierarchies and Boundaries

Theory and research in the area of occupational sociology is grounded in the notion that all work related tasks within society are distributed across a hierarchy of occupations that compete for status and resources (Caplow, 1954). Occupations are populated by members who gain entry into the occupation, who form some level of identification with the occupational group, and who are subject to occupational norms and standards of behavior. As such, being a member of an occupation provides a social identity that carries specific expectations. A growing body of ethnographic research has demonstrated that occupationally determined norms codify the true work of the occupation and members are expected to uphold them (cf., Van Maanen & Barely, 1984).

Professions, in turn, are a distinct occupational form characterized by unique, highly specialized knowledge, high barriers to entry, formal socialization and training, and strong normative control of the behavior of members (Abbott, 1988). Professions compete with other occupations and professions within society to advance their goals and to preserve the legitimacy of the profession and its practice.

These objectives are accomplished by:

- Legitimizing and restricting the domain of the profession by formal socialization and training that includes specialized education, degrees and certification, and where appropriate, licensure.
 - Application of specialized knowledge, language and techniques that are known only to members of the profession and that mystify outsiders.
 - Strong norms for professional practice that define the true work of the profession and that are enforced by members of the profession.

- Professional organizations and lobbying groups that advance the goals of the profession and influence regulatory bodies to act in ways that are beneficial to the profession.

Comparison of Professional and Organizational Models

Professional and organizational models are contrasted in Table 1.

Factor	Professional Model	Organizational Model
Level of Analysis	Societal	Organizational/Group
Control of Members	Informal (by peers)	Formal (by hierarchy)
Structure	Decentralized/Democratic	Centralized/Participatory
Identification	Value-Based	Instrumental
Status Hierarchy	External (Across Professions)	Internal (Across Units and Jobs)

Table 1. Comparison of Professional and Organizational Models

As indicated in the table, occupations and professions compete for resources at the societal level and attachment to the occupation/profession is value-based. Using the organizational model, therefore, leads to misspecification of the processes by which occupational groups interact within society, by which members enter a profession, and by which membership shapes their behavior. Each of these factors is critical to developing an identity for IS, and are most accurately understood using concepts from occupational theory.

Academic Disciplines, Paradigms and Pluralism

Casting IS as a profession does not mitigate the fact that it also operates as an academic discipline. That is, much like medicine and engineering, the domain of IS includes specialized education within universities. IS faculty, therefore, serve as socialization agents who help define professional practice, pass on specialized knowledge and techniques, and communicate norms for appropriate professional behavior (cf., Hughes, 1958). The success of these efforts, in turn, determines the value of IS in the hierarchy of professions based on the perceived skills and knowledge of IS practitioners.

Specialized knowledge is generated by research. A comparatively large body of research has addressed the issue of consensus and conformity in academic disciplines using the concept of paradigm development. Pfeffer (1993) provides an excellent summary of this work and defines a high level of paradigm development as "agreement that certain methods, certain sequences and programs of study and certain research questions will advance training and knowledge in the given field." (p. 600). Outcomes of high paradigm development include: more autonomy in governance of academic departments, greater levels of funded research, stronger connections between productivity and pay, and greater departmental power within the university (Pfeffer, 1993).

Pluralism represents the polar opposite of high levels of paradigm development. It is characterized by heterogeneity of methods, theoretical frameworks, and concepts, by a desire for novelty in theory, and constant search for new ideas. The consequences of pluralistic disciplines are also seen as the opposite of those driven by paradigmatic research and include lower status, power and resources both within the university, the larger academic community, and society.

WHERE DOES IS STAND?

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BUILDING ON LATENT CONSENSUS: IS IDENTITY, EDUCATION AND PROFESSIONAL PRACTICE

Professions develop and maintain status in society by controlling and legitimizing the activities that sit at the core of the profession's image both among its members and in society at large (Hughes, 1958). This objective is accomplished with formalized training programs that instill an identity into those who complete them and that set the basis for distinguishing between insiders and outsiders (Geer, Hughes, Strauss, & Becker, 1961). Although there are academic and professional groups associated with IS, their influence lags that of highly developed professions such as law and medicine and that of hybridized academic disciplines with a strong practice component such as psychology. This state of affairs is attributable to the relatively low level of paradigm development within IS, and while the IS community has been warned about the allure of paradigms (Robey, 2003), the consequences of the current degree of pluralism in IS must also be considered.

Indeed, empirical studies of professions (Abbott, 1988) and of the status of academic units in academia (Pfeffer, 1993) have consistently indicated that those with higher levels of paradigm development fare better than do those with lower levels. Put simply, the consensus characteristic of an accepted paradigm clarifies the role of practitioners, the intellectual domain of the profession, and the value of academic units within universities.

IS has not fared well in these areas. To begin with, degree programs using the term "information systems" can be found in schools of business, schools of information science, schools of information and library science, and schools of computing. Further, although there are recommended curriculum standards for IS degree programs, enforcement mechanisms are comparatively weak. Compare this situation to the field of business. The AACSB accredits universities and as a result monitors all business related courses and degree programs offered by a given institution. If a degree program outside of the business unit offers a certain number of credits in business, it is subject to AACSB standards and review, and the determination of what is to be reviewed is made by the AACSB and not by the institution.

This level of control is critical to the advancement of a profession within the academic community and in society. It is required to define and protect a discipline's knowledge domain and to educate outsiders about a profession's value (Abbott, 1988). As a result of its fragmented state, IS has had difficulty protecting its domain against related programs such as information technology. More generally, pluralism has hindered lobbying and related influence attempts. Thus, despite forecasts for good long-term job growth in MIS (Occupational Outlook Handbook, 2006), IS is seen by the general public as a discipline that prepares graduates for jobs that are moving offshore.

As such, an important component of building a strong identity for IS revolves around the education and socialization component of the field. The latent consensus with respect to outcome variables seems to be a good starting point for this process. Table 2 presents a hypothetical example of how this might work in practice.

Outcome Variables	IS Domain Areas	Related Areas
Firm Performance	ERP Systems CRM Systems Business Intelligence Systems	Strategic Management Financial Analysis e-Marketing Economics
Systems Performance (and Implementation)	Systems Analysis & Design Database Design & Management Data Security IS Project Management	Software Engineering Telecommunications & Networks Operations Management
Human Performance	Decision Support Systems Executive Information Systems Computer Mediated Communication e-learning and e-training	Artificial Intelligence Cognitive Psychology Library & Information Science Simulations & Games

Table 2. Using Latent Consensus to Define the IS Knowledge Domain for Education

Table 2 is neither prescriptive nor inclusive. Rather, it is meant to demonstrate how consensus in certain areas can be used to drive consensus in others. It is not meant to suggest that relationships between outcome variables and IS domain areas are isomorphic. Nonetheless, if the IS community accepts the outcome variables, through time and negotiation consensus can be built with respect to the domain areas for socialization and education which, in turn, should lead to clear boundaries and associated curricula for academic programs. Further, the value of IS to society and the skill base of IS professionals (e.g., graduates of IS degree programs) should be clear.

Negotiation, however, is not solely internal. The third column of Table 2 signifies that any domain that IS defines is subject to challenge. Put simply, IS is part of a negotiated order that is subject to revision from outside forces, again demonstrating the shortcomings of using an organizational metaphor to frame an identity for IS. In this regard, an organization defines its mission and domain as part of a strategic management process that is not subject to outside influence and its future is determined by market forces. In contrast, professions compete for resources and intellectual territory through a process of alliances and conflicts that are ongoing (Abbott, 1988). A weak identity hampers every aspect of this process.

IS IDENTITY, IS SCHOLARS AND RESEARCH

The low level of paradigm development in IS is even more obvious with respect to research. If the process of building consensus for greater paradigm development is viewed as an ordered sequence beginning with agreement about methods, then theory, and ending with consensus about the most important research questions for the future (cf. Pfeffer, 1993), IS fares relatively well on the first issue and considerably less well on the other two. That is, anything beyond consensus over methods leads to concerns about one school of thought trying to take over the field.

Benbasat & Zmud (2003) address this issue head-on by defining the intellectual domain of IS with an IT artifact and an associated nomological network. The response to their ideas has been strong and varied, and as expected, it is concerned mostly with where the "lines in the sand" have been drawn. This is unfortunate because the most serious problems lie not with the boundaries that Benbasat & Zmud (2003) have attempted to establish, but rather with the framework that they have used to establish them.

Because their conceptual scheme is based on an IT artifact and its associated nomological network, Benbasat & Zmud (2003) accept that IS scholars can work outside of IS's proscribed domain areas provided that they do not publish such work in IS journals. As such, their approach mirrors the conceptual scheme on which it is based (cf., Chronbach & Meehl, 1955) so that errors of inclusion are recast as falling outside of the domain of a theoretical model; that is, the full consequences of errors of inclusion are minimized.

More specifically, control mechanisms in professions operate to sanction and ultimately exclude members who operate outside of the proscribed domain and/or who use methods or techniques do not constitute proper professional practice (Van Maanen & Barley, 1984). Errors of inclusion, thus, undermine the identity of IS both to both outsiders and insiders because boundaries between related disciplines become blurred and as does the proper work of an IS scholar (cf., Abbott, 1988). Thus, a critical element of a meaningful IS identity is to ensure that IS scholars are performing the correct and proscribed work of the profession. Put simply, IS researchers cannot assume the proscribed role in some instances and then conduct studies that are not consistent with it in others. A scholar is either a member of the IS profession and signifies so by performing the proscribed role or he or she is not.

How, then, does a profession advance to the point where this is possible? Occupational theory casts this as a social process based partly on agency and partly on shared values and meaning (Abbott, 1988). Using this idea as a starting point, it appears that the IS discipline is much further away from developing an identity for its knowledge generation activities than it is for its knowledge dissemination activities. The current debate in IS casts the problem of defining a research domain for the field as an intellectual endeavor when, in fact, it is a psycho-sociological process with strong political underpinnings. One element of this process, agency, appears to be ineffective in that many IS scholars have openly celebrated the benefits of pluralism (cf., Agarwal & Lucas, 2005) with little concern about its far reaching consequences which include the discipline's survival. The second element, member socialization, necessarily lags agency because IS has not advanced to the point where degree programs (through the doctorate) are standardized and the discipline remains populated by scholars trained in other areas thereby further frustrating value consensus.

For these reasons, it is not possible to identify the theories that define IS and the important future research questions for the field. Certainly a listing could be presented here, but it would serve only to spur even more factions within IS. In other words, it would serve only to make matters worse.

The fractiousness stemming from pluralism within IS is obvious and it serves to mask a far more significant issue that has little to do with resolving immediate conflicts. The debate within IS about its identity, domain, and future frames these issues as highly parameterized problems to be solved. That is, these critical issues have been intellectualized with "solutions" that are then evaluated within the context of a decision-making model.

Occupational theory suggests that this is not the case and presents a radically different view. To begin with, theory and research on the professions belies the implicit assumption of the decision-making approach that IS has sole control of its fate (cf., Abbott, 1988). Its domain is subject to challenge from other professions so that even if there was immediate consensus within IS about the field's identity and knowledge base, this would not constitute a "solution" unless related professional groups accepted the boundaries offered by IS scholars. Second, and equally importantly, framing an identity and a knowledge domain for IS is not an outcome, but rather is a process that goes beyond building temporary consensus.

One way of looking that this process is in terms of the evolution of the IS discipline. IS is comparatively less advanced than more established professions such as medicine or older, hybrid disciplines such as psychology. Further, this process is staged so that building consensus about curricula and degree programs, while not directly related to moving toward paradigmatically driven research, it is an important step in achieving this objective. The outcome, more standardized socialization of IS practitioners and IS scholars, is another important step that opens up the opportunity to establish boundaries and to begin to define errors of inclusion and exclusion.

Figure 1 offers a summary of how IS might evolve. It is not intended as a "roadmap," but rather is meant to frame the challenges that lie ahead for IS and for IS scholars. This process has been discussed throughout the paper and need not be repeated here. It is noteworthy, however, that theories of occupations and professions present a very different perspective for the future of IS than do theories of organizations.

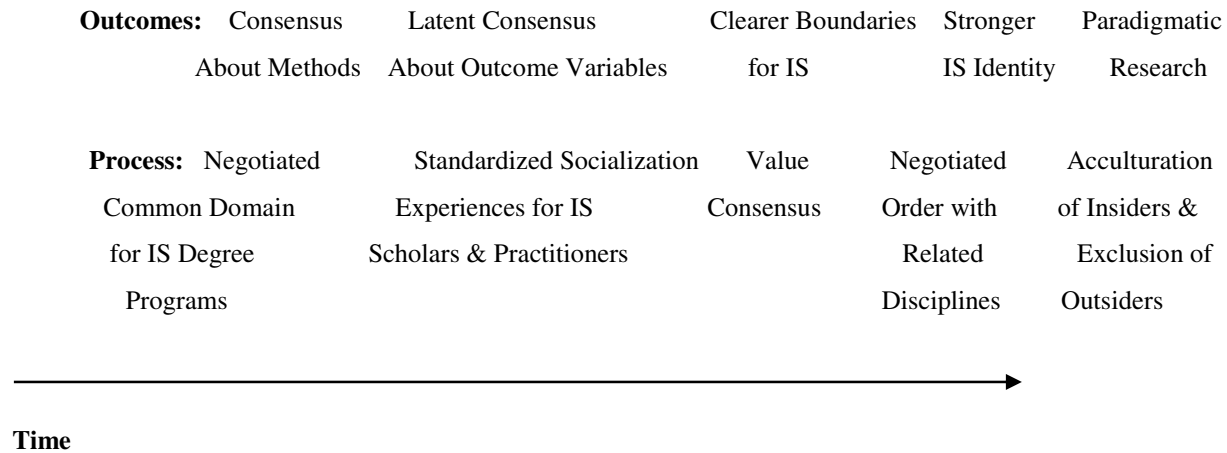


Figure 1. A Model of the Evolution of IS

The current levels of pluralism within IS actively and significantly frustrate the evolution of the profession which is why many IS scholars feel aimless. This problem, however, is neither insurmountable nor intractable. The views presented here derived from occupational theory and theories of professions suggest that there is no "quick fix" and the issues involved are fundamentally human (psychological and sociological) and not intellectual. Thus, it must be remembered that the boundaries of the discipline, wherever they might fall, affect hearts and souls as much as they do thoughts and actions.

CONCLUSION

The diversity characteristic of IS is typically cast as either an asset or a liability (or a bit of both) depending on one's point of view. Another way of viewing it is as either a property or as an outcome. Treating pluralism as an outcome suggests that it is something to be managed while viewing it as a property suggests that it is something to be understood. This paper takes the latter view and suggests that it is necessary to have a sufficient level of consensus to control professional socialization and to establish parameters for IS scholars if the field is to advance.

The views here are not intended to be prescriptive, but rather are meant to offer a different perspective on a critical issue. This paper is a small part of a much larger conversation that is interesting and engaging, and that bodes well for IS. While the future of technology related professions is difficult to predict, it is clear that it does not belong to the complacent.

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