Journal of the Association for Information Systems

IS Research Perspective

Research Directions in Information Systems: Toward an Institutional Ecology *

Neil C. Ramiller

School of Business Administration Portland State University neilr@sba.pdx.edu

E. Burton Swanson

Anderson School of Management University of California, Los Angeles burt.swanson@anderson.ucla.edu

Ping Wang College of Information Studies University of Maryland, College Park pwang@umd.edu

Abstract

This essay identifies three characteristic problems in how the Information Systems field sets its research directions. First is the propensity of our field to create research agendas modeled after the transitory infatuations that industry has with certain popular topics in IT-related innovation. The second problem is our field's inclination to develop insular sub-communities that consume resources on behalf of research programs that are of limited theoretical and practical interest. A third problem is noted from time to time by our partners in industry: We sometimes neglect topics that are of practical interest to them. This paper argues that these seemingly diverse phenomena can be brought under a common umbrella by examining how the shaping of research agendas depends on forces in our field's larger institutional milieu. Specifically, we suggest that the field's research directions constitute responses to institutionally constituted market forces that arise both within academia and in the larger economy and society. Furthermore, we propose that the substance of the discourse associated with any particular research stream is dictated by the workings of these forces, in ways our community has yet to fully understand. We make four proposals for reflexive inquiry that we believe will advance this understanding and ultimately help to foster research that better serves both theory and practice, while being less subject to the whims of industry fashion.

Keywords: Information systems research, research agenda; ecology of markets; institutional history; boundary ethnography; comparative discourse analysis; deconstruction; reflexive inquiry

* Rudy Hirschheim was the accepting Senior Editor. Frank Land, Ray Henry, and Evgeny Kaganer were the reviewers. This paper was submitted on January 25, 2006 and went through three revisions. An earlier version of this paper was prepared for, and presented at the Gordon B. Davis Research Symposium, Minneapolis, May 13-14, 2005.

Volume 9, Issue 1, Article 1, pp. 1-22, January 2008

Volume 9 • Issue1 • Article 1

Research Directions in Information Systems: Toward an Institutional Ecology

1. Introduction

The announcement of the May 2005 symposium honoring the career of Gordon B. Davis called for forward-looking contributions that could help in defining the future research directions for the Information Systems field. More specifically, the call for papers asked two questions: "What phenomena <u>are likely</u> to dominate the intellectual space of the IS academic discipline?" and "What body of knowledge <u>should</u> the discipline continue to develop in order to strengthen and maintain its role as a business discipline?" (emphases added).¹

In our view, both accurately forecasting the field's future and making practicable proposals for its future course demand a better understanding of how the field's research agendas actually <u>get</u> decided. In this regard, we note Frank Land's broadcast message to ISWorld (March 26, 2004) in response to the appearance of the symposium's call for papers. In that message, Land suggests that all is not well when it comes to how we, as a collective, set our research directions:

We note that the IS community is very good at scrambling aboard the latest bandwagon, as often engaging in the hype rather than being properly critical. The list of bandwagons which the IS community has adopted is long. Yesterday it was BPR, then Knowledge Management, ERP and perhaps the current fad is mobile computing. Each bandwagon spawns conferencs [sic], journals and new texts. Much of the work is revealing and helps to broaden the understanding of students and practitioners. But too much is shallow and engages in rhetoric rather than analysis.

Land's critique points to the need for identifying substantive IT research topics that hold genuinely enduring interest. It also suggests that our community should explore ways to draw deeper and more lasting conclusions when we do attend to the technological "current events" of the day. However, in this paper we develop a third, less obvious implication. We argue that our community should also regard *the manner in which our research directions get determined* as a subject matter crucial to the field's "intellectual space." Here, an important part of the "body of knowledge" that our community should develop is a reflexive understanding of the formative connections between the discipline's research agendas and the larger institutional milieu in which it is embedded. This, we believe, is a prerequisite to addressing both of the symposium's questions. That is, it is required both for making sound predictions about which way our field is <u>likely</u> to move, and for determining *to what degree* and *in what ways* it may be realistic for IS community members to <u>shape</u> the field's direction.

What we are proposing, while in keeping with our field's long tradition of self-reflection, is largely new. We are not offering commentary on the development of specific IT topics (e.g., Melville et al. 2004), a meta-analysis of broader currents (e.g., Banker and Kauffman 2004), or an argument about the proper orientation and constitution of the field (e.g. Benbasat and Zmud 2003, Orlikowski and Iacono 2001). Instead, we call here for systematic investigation of the dynamic relationship between the community's own research discourses and larger discourses in the economy and society. At the same time, our essay does join these other types of commentary as a contribution to the field's meta-discourse on research directions. In this regard, we recall Bryant's paraphrase of Bauman (1992) (Bryant 2004, p. 4):

Only a discipline flawed as a discourse has to offer an apology, feels the need to justify its right to existence... Concern with self-justification has been, since its beginnings, a conspicuous feature of Information Systems discourse.

The community discussion on research directions to which we hope to contribute here might superficially appear to offer just more of the same fretful, existential conversation. However, we

¹ A good starting point for engaging these questions has been provided by Davis himself (Davis 2000), in whose honor the symposium was named and organized.

believe that this particular meta-discourse can make a substantial contribution toward greater clarity and strength in the discipline and, hence, to diminish the insecurity that Bryant rightly observes dogs our field.

In this paper we outline a program of reflexive inquiry that the field might pursue in this area. The paper turns on two notions. First, we argue that how our field sets its research directions can be understood as a response to institutionally constituted market forces that arise both within academia and in the larger economy and society.² Second, we propose that the actual substance of the discourse associated with any particular research stream is dictated by the workings of these forces, in ways our community has yet to fully understand. We offer four proposals for doing reflexive research to advance such understanding. Our larger aim is that this reflexive work will, through its conduct and findings, help to foster research that is simultaneously of greater practical value (whether immediate or long-term) and less subject to the whims of industry fashion.

2. Markets for Research and their Formative Institutional Contexts

It is commonplace in discussions of research that scholars must "find a market" for the work they produce. This, of course, employs the term *market* rather broadly and, to a degree, metaphorically. A research paper is not sold or transacted in the everyday sense, with its value literally settled by a price mechanism. Nevertheless, a scholar's cumulative research production "pays off" for him/her more or less in proportion to the value that others find in it. The researcher, then, is rewarded in such currency as professional recognition and esteem, enhanced standing with colleagues at his/her university, offers of more attractive jobs at other universities, better prospects for grants and chairs, new research opportunities and, beyond academia, opportunities for lucrative consulting. The fact that the rewards for research are rather diffuse, with links between specific research products and specific payoffs usually difficult or impossible to pinpoint, still does not diminish the market character of the enterprise.

Consider, too, the competition that exists among scholars' research products. Papers clearly compete in the marketplaces represented by our premier conferences and quality journals. In such contexts the valuations set by peer review and editorial selection determine submissions' prospects for winning "shelf space."

For IS research there are, broadly speaking, two categories of markets. *External markets*, composed of businesses, government, and other interests in the general society, evaluate and utilize research products for their practical value. *Internal markets*, consisting of disciplinary sub-communities that "consume" research of a particular topical thrust (e.g., mobile computing, knowledge management, technology acceptance model (TAM)), evaluate research products for their knowledge contributions and their usefulness as building blocks for further research.³ The interests of these two markets are not the same, and so sometimes a research product may be highly valued by both markets, sometimes only by one, and sometimes (sadly) by neither. In short, being valued highly by one market does not necessarily imply being valued highly by the other.

 ² Another interesting area of inquiry is the effect of institutional forces on <u>practitioners</u>' discourses (Phillips et al. 2004, Swanson and Ramiller 1997, 2004). This topic is beyond the scope of the present essay.
³ Similarly, it has been argued that the center of the IS academic field can be characterized as a "market of ideas,"

³ Similarly, it has been argued that the center of the IS academic field can be characterized as a "market of ideas," around which dynamic and diverse research subcommittees coalesce (King and Lyytinen 2005, Lyytinen and King 2004). Arguably at the boundary between external and internal markets is the educational enterprise that prepares professionals for practice. On the one hand, practice makes demands on this enterprise for content of unquestioned relevance, and often takes a direct hand in education, organizing its own offerings. On the other hand, researchers with broader educational responsibilities evaluate the worthiness of their products for incorporation into teaching materials for which they are responsible or have an interest, as with textbooks. The role of education in the ecology of markets described in the present paper clearly deserves more attention than we can give it here.

3. Three Characteristic Problems

3.1 Bandwagon Following

Although the internal and external markets are not the same, Professor Land's remarks point to the fact that the two markets are not entirely independent of one another. He alludes specifically to the dependence of internal markets on external markets. This dependence reflects, in part, the pressure on scholars in an applied field such as ours to be *relevant*. Land notes further how, for our field, relevance is often equated with being "current." This pressure for currency leads to the first of three characteristic problems in the way in which we set our research directions. This is the problem of scholars jumping on industry bandwagons.

The phenomenon of bandwagons reflects the more general fact that what is current is a perpetually moving target. When we academics follow external markets too closely, we run the hazard, despite our best scientific intentions, of falling prey to the fickleness and irrationality that has been widely observed in the larger socio-economic milieu. This can affect not only what we choose to study, but the ways in which we interpret what we see.

Individual scholars can find themselves pulled on to bandwagons, notwithstanding the fact that their main focus remains on producing for an internal academic market. For example, these days doctoral students may perceive the need to do something involving "agility," "social networking," or "services orientation" in their work if they hope to fare well in a tight job market in which faculty on recruiting committees are all abuzz about industry's current interest in these topics. External markets thus interpenetrate internal markets, even as scholars setting their research agendas respond in the first order to the rewards built into the latter. In scholars' collective response, then, we witness the cumulative enrollment of the research community as a whole in the larger fashions of industry.

3.2. Insularity

The second problem we want to call attention to arises, paradoxically, in the degree of <u>in</u>dependence that the academic discourse enjoys. Although internal markets are subject to influence from the business community and the larger society, their on-going constitution also depends upon rules, structures, and political processes proper to academia itself. These institutional factors (Callon 1998, Fligstein 2001) are such that, <u>despite</u> the fact that ours is an applied discipline, path-dependent processes can arise in which certain research streams emerge, evolve, and grow to consume resources in significant disregard for practical application. By resources, we refer to such things as researchers' attention, project funding, space in top journals, and university appointments.

Broadly, this is more a good thing than a bad thing, as the academic community in our view bears a responsibility to invest its resources in developing knowledge for the long-term social good, more than for the short-term industrial payoff. This suggests that considerable patience should be given to research, however seemingly arcane, which holds promise over the longer term. The difficulty is that some research streams may persist for long periods even in the face of mounting suspicions that they have become, both academically and practically speaking, dead-ends, their persistence nonetheless ensured by their adherents' dogged pursuit of studies with relentlessly diminishing returns. This typically happens where a robust and aggressive sub-community becomes established around a research topic and perpetuates itself through sympathetic reviewing, preferential hiring, shepherding of doctoral students, favor in funding, and the like.

This reflects a different and seemingly paradoxical dysfunction, when contrasted with the fad-chasing to which Land calls our attention. In this case, the problem is abetted to a degree by <u>dis</u>connection between internal and external markets (Hirschheim and Klein 2003), and the resulting absence of the kind of selective pressure that external markets might otherwise impose on the choice of research topics. Pointing fingers is contentious, and it is beside our purpose in the current essay to target a particular research discourse for debate. Accordingly, simply to provide a potential example, we note that some of our colleagues appear to be asking whether the bell might now be tolling for TAM

research (Journal of the Association for Information Systems Special Issue 2007).

3.3. Neglect of Practical Topics

The final problem is one that is noted from time to time by our partners in industry, including information systems executives, business managers, and IT practitioners. And this is that the IS academic community appears to ignore or simply overlook certain topics of interest and importance to these parties, typically ones that lack the flash and sparkle of today's "next big thing." At the same time, an executive recently told one of the authors that what he expects of us is precisely the forecast of tomorrow's "next big thing," suggesting that technological futures may be one of our field's neglected topics. In any case, many readers will likely have heard, in conversations with industry representatives, criticisms alluding to neglect.⁴ In a similar vein, there have been some calls within the IS academic community to look more proactively to industry for research projects to pursue (e.g., Benabsat and Zmud 1999; Lee 1999). However, most of the discussion on relevance has been focused elsewhere, and more preoccupied with how to make the research that we are already doing more appealing to practitioners.⁵

4. Toward an Ecology of Markets

4.1. Ecological Structure

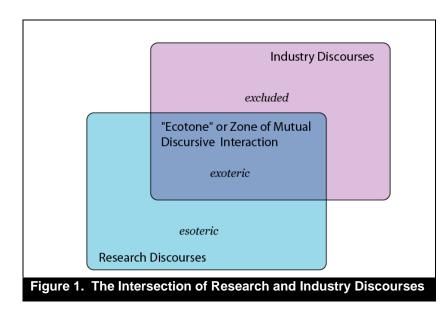
We have raised here a seeming paradox: Our community can be observed setting research agendas that cater slavishly to industry fashions, but also building insular and "clubby" research programs of questionable larger value. To this we can add the problem that we sometimes miss altogether certain industry concerns that might in fact constitute legitimate subjects for research. The apparent disconnects among these problems, however, are more apparent than real. The fact that we can observe all three problems arises from the institutional structure that underlies our discipline's research. We offer Figure 1 as a simple aid in visualizing the issues, which turn on variations in the *relationship* between internal and external knowledge markets. It depicts the situation as a case of two partially overlapping discourses, one practiced by academics and the other by members of industry. The area of overlap, then, represents where the discourses interpenetrate and can affect one another.

We propose that reflexive investigation of the problems in the field's research directions proceed from what we will call an *ecology of markets* perspective, one that takes into account the distinctions and interactions among discourses.⁶ With a particular research stream as a point of departure – technology acceptance, knowledge management, service-oriented computing, and so on – we recommend that reflexive inquiry trace the stream's development as a complex *knowledge market*, the constitution of which is, and has been, subject to shaping by *institutional forces*. As noted, in many (but not all) cases these institutional forces include ones both *external* to our academic community (business, government, educational systems, and society more generally) and *internal* to the community (i.e., the rules, structures, and political processes proper to IS academia itself). These

6 Here we heed one reviewer's advice to clarify that ours is not the "ecology" of population ecology (e.g., Hannan and Freeman 1977), but a concept rooted in neo-institutional theory (e.g., DiMaggio and Powell 1983). For further elaboration on the theoretical distinction between an institutionally-informed ecology and population ecology as applied to organization studies, see Astley (1985).

⁴ We informally confirmed our personal observations with senior colleagues in the field (Eph McLean and Bob Zmud, specifically). They observed with us that in some cases executives are generally disinterested in what academics choose to research; in other cases, executives point to academic neglect of important problems, but agree little about what these problems are. For a rare effort from the academic side to systematically identify instances of such neglect, see Szajna (1994); this work also observes that even where "IS researchers have been focusing on important practical issues...," these issues in fact had been "critical to IS practitioners" only many years earlier. On the whole, the charge of academic neglect of practical topics presents something of a muddle. 5 One reviewer pointed to another kind of neglect, which can affect both academic and industry discourses. This concerns the substantive constitution of the discourse, that is, what is included vs. what is left out. Potentially important issues can be ignored or marginalized, depending on how the discourse evolves. In many cases, developmental shifts will also be observed over time (Swanson and Ramiller, 2004).

forces, where both are important, engage one other within the area of overlap in Figure 1 where the research stream seeks to be *exoteric*, that is, communicable to a broader audience. This contrasts with an *esoteric* research stream, which is the subject of academic discourse only, and with what we will call an *excluded* area of discourse, where research attention is missing.



We characterize the exoteric zone as an *ecotone*, borrowing a term from environmental sciences that refers to a transitional zone between two ecological communities.⁷ Using historical examples to make things a bit more tangible, we would locate among the collection of discourses in the ecotone the academic discourses on CASE (computer-aided software engineering), ERP (enterprise resource planning), and knowledge management. A given topic in this zone, while nominally shared, is nonetheless enacted and interpreted differently (Weick 1995) in the academic and industrial discourses, according to the values, goals, incentives, and schemas that each community brings to the issue. For research streams situated in the ecotone, both the interdependencies and tensions between external and internal forces will be crucial elements in the kind of reflexive inquiry we have in mind. It is within this zone that the problem of academics chasing after industry bandwagons obviously arises. However, that a topic is found within this zone does not, *per se*, imply that the academic research in question necessarily suffers this malady.

The ecotone is also of interest because of the way in which esoteric research streams, despite IS researchers having (sometimes nominal) commitments as applied scholars, fail to achieve a presence in this discursive zone. Topics sequestered in this way within "esoterica" are rightfully scrutinized for the insularity we have spoken of. Again, however, an esoteric topic is not necessarily insular, particularly if its theoretical contribution can be said to have significant implications that reach out to other research streams.

Finally, the ecotone is of significance as a boundary that raises challenges to the discovery and translation of industrial preoccupations currently in the excluded zone into topics of mutual interest between scholars and managers/practitioners. All three of the concerns we have noted call for attention to the dynamics that shape the development and fate of researchers' activities across the landscape depicted in Figure 1.

6

⁷ We note that certain styles of research, such as case research (Lee 1989) and action research (Baskerville and Myers 2004), are typically committed to being carried out and having their findings communicated in the ecotone.

4. 2. Ecological Dynamics

Origin and persistence of excluded topics. As Professor Land suggests, many topics in the IS research community's ecotone originate in the excluded zone and subsequently migrate into the ecotone, as academics begin to pay attention to topics that excite the interest of industry, as with ERP in the 1990s. Of course, for various reasons there are topics of interest to practitioners that academics do not take up. This does not necessarily constitute negligence; nonetheless, our community's lack of representation in these discourses can be problematic for the discipline, especially to the extent that such neglect gives rise to the familiar complaint that the academy is unresponsive to industry needs and priorities. This absence can be ameliorated by our colleagues who see an attractive market for engagement in consulting work.⁸ However, such activity, in our view, typically remains in the excluded zone, because expansion of the field's knowledge is not the primary intent of the work. In short, while there may be <u>academic</u> attention, this does not qualify as academic research attention. Action research is a notable exception (Baskerville and Myers 2004) because of its explicit and concerted joining of consulting and research. It is therefore properly located in the exoteric category, and may prove a useful model for the translation and, indeed, transportation of industry concerns into academic research.

Origin and persistence of the esoteric. At the opposite end (refer again to Figure 1) we have esoteric research, which by definition involves academic discourse that neither affects nor is affected by industry discourse. An argument can probably be made that even in an applied field there is room for research that deals at such a fundamental level of theoretical and/or methodological development that active and explicit reference to practical application is not required. However, we believe that much esoteric research aspires at least symbolically to some kind of interconnection or dialog with industry discourse. We witness this, for example, in the nearly ubiquitous efforts of researchers to pen "management implications" sections in their papers. That these efforts all too often struggle to articulate a convincing practical application (Robey and Markus 1998), and hence fail in the attempt to help move their larger discourses into the ecotone, has been the inspiration over many years for a great deal of collective introspection and, indeed, hand-wringing in the field (Applegate 1999; Baskerville and Myers 2004; Benbasat and Zmud 1999; Davenport and Markus, 1999; Keen 1991; Lee 1999).

Some of the trouble may arise because research streams in the esoteric zone tend to develop specialized languages that stymie communication with external markets or, indeed, with other research streams, even ones that speak to the same phenomena but use different frameworks.⁹ But we also note that the academic rewards enjoyed by members of a prospering research subcommunity will often allay the disappointment that comes from authoring weak and unpersuasive management implications sections. Accordingly, simply in light of the incentives at work, we view many esoteric research streams as intrinsically inertial and unlikely to move into the ecotone in order to seek substantive connections with motivating industry discourses. This helps give rise to the insularity we have identified here as one of the characteristic problems in how the field sets its research directions.

Movement and interaction in the ecotone. Where a research stream does occupy the ecotone, our interest needs to focus on characterizing the developmental dynamics between academic and industry discourses. Here, in trying to shed light on the potential dependency beneath the problem of bandwagon-following, we believe it is important to attend to timing and the substance of the discourses.

Relative to *timing*, we note two things. First, in principal a given academic discourse can lead or follow industry discourse. We say "in principal," because the limited empirical evidence on management scholarship suggests that the academy actually tends to follow industry (Barley et al.

⁸ We thank a reviewer for reminding us of this kind of activity, which s/he attributed to IS academics "particularly in the business school sector." We must also allow that researchers may be blind to important problems in industry for which industry itself has as yet not developed a significant discourse.

⁹ A reviewer also wisely pointed to this problem.

1988). Of course, this observation is contrary to the nostrum that science discovers while industry applies. Second, an academic discourse may be relatively sustainable, with the capacity to outlast industry's sometimes faddish attention, or it may be subject to rapid exhaustion as industry's attention to the topic wanes.

Relative to *substance*, it is useful to think about differing levels of interpenetration between academic and industry discourses, one measure of which would be the degree of cross-referencing (or borrowing) of themes, ideas, and language across the corresponding "literatures." In this regard, discourse analysts have the useful concept of *interdiscursivity*, the "shifting articulation of different discourses, genres and voices in interactions and texts" (Chouliaraki and Fairclough 1999, p. 45). An interdiscursive analysis, then, "identifies the discursive resources (genres, discourses) that are drawn upon in...(communicative) interaction and maps them onto social orders of discourse" (ibid, p. 113). Thus, where interdiscursivity is pronounced in an academic research stream, we would find within the texts constituting its on-going discourse a significant mixing or hybridization of elements drawn from the corresponding topical industry discourse (Fairclough 2003, p. 35 and p. 218).

Interdiscursivity is related to, but distinct from, another substantive dimension, which we will call *creativity*. The academic discourse may depend in a fundamental way on industry discourse for its motivating themes, topical content, and overall sense of purpose, or it may be relatively distinctive and creative. This reflects at the level of the discourse the larger process of institutional mimesis (DiMaggio and Powell 1983), which in this context would concern especially the degree to which academic researchers' views and thinking (cognition) are shaped by industry's framing of the topic in question (Scott 2000).

Figure 2 summarizes.¹⁰ Sustainability, interdiscursivity, and creativity are, naturally, matters of degree. Moreover, these aspects, along with leadership, are subject to complexity in patterning. Once one gets beyond a monolithic view of the research community and begins to think about specific research discourses and the complex research collectives that sustain them, it is easy to visualize discourses in which some participants lead industry (at least in certain respects) and others follow, some innovate and others imitate, and some have work that outlasts industry's attention span and others have work that expires along with industry's affection for the topic. Moreover, the character of the relationship between academic and industry discourses is likely to shift over time (as observed, for example, by Barley and his colleagues (Barley et al. 1988)), in ways that may tend to vary with the IT innovation in question. As a consequence, the relationship between the discourses will often be complex and shifting, qualities that coursel against its simplistic characterization.

Timing	Substance		
leadership	interdiscursivity		
sustainability	creativity		

Figure 2. Aspects of Academic Discourse in Relation to Industry Discourse in the Ecotone

We should also note that there are likely to be complicating *interdependencies* among these aspects. For example, it seems logical to conclude that the academy cannot lead industry while also being mimetic. In a similar vein, we might also suspect that it would be difficult for the academy to follow and yet be creative. However, this issue is not as clear-cut; it is conceivable that the academy might follow industry and yet do so in a manner that is marked by a significant creativity that arises from the research community's own distinctive interests and perspectives. One might also reason that creativity must be in effect for the academic discourse to be sustainable. Still, given academic

¹⁰ This brief discussion of the qualities of academic discourse focuses specifically on the academic-industry relationship. It is not intended to fully characterize academic discourse. A broader consideration of discourse qualities would include other dimensions, for example, coherence, volume, and audience size.

momentum and path dependencies, might there be surprises here too? At the same time, we note that creativity will not <u>ensure</u> sustainability, as external forces constantly conspire to redirect the attention of the academy, however creative it might be, from current topics to newer ones. Finally, where interdiscursivity is relatively substantial, we might take this as a sign that the academic discourse is heavily derivative of industry discourse and, hence, low in creativity. Alternatively, this might be evidence that the scholars participating in this area have accomplished a higher level of conversancy in issues of industry interest and have found ways to make their own unique contributions translatable into industry language.

In short, while there are abundant opportunities for armchair theorizing about the interdependencies among the aspects of leadership, sustainability, interdiscursivity, and creativity, these must be worked through in their specifics for each topic. The plots in Figure 3, which compare academic and industry discourses on a small set of IT-related innovations, are suggestive of the potential variation. In the first, we see that discourse on group decision support systems (GDSS) has been mainly an academic phenomenon.¹¹ The academic discourse on GDSS took off in 1986 and peaked in 1990, demonstrating a lifecycle that is difficult to relate to that of the tiny industry discourse on GDSS. At first glance, this suggests that GDSS remained throughout its life history within the esoteric zone of Figure 1. However, concluding so would depend on a closer analysis, which conceivably might reveal connections to practice elsewhere, for example, via the broader discourses on groupware, remote work, and so on. The second plot shows that the academic discourse on ERP remained significantly smaller than the industry discourse but continued to grow even as the industry discourse declined precipitously. During the early years represented in this plot, ERP could be said to have occupied the excluded zone of Figure 1; one suspects that industry members might have wondered at the time about the absence of academics from this area (the neglected-topic problem). The late increase in academic inquiry, against a precipitous decline in industry discourse, invites scrutiny into whether this reflects sustainability or simply publication lag. The third plot, for knowledge management, raises a similar question. In the earlier years, however, the discourses in this case suggest a higher degree of interdiscursivity, and might lead one to wonder about the possibility of academic leadership and creativity in this area.

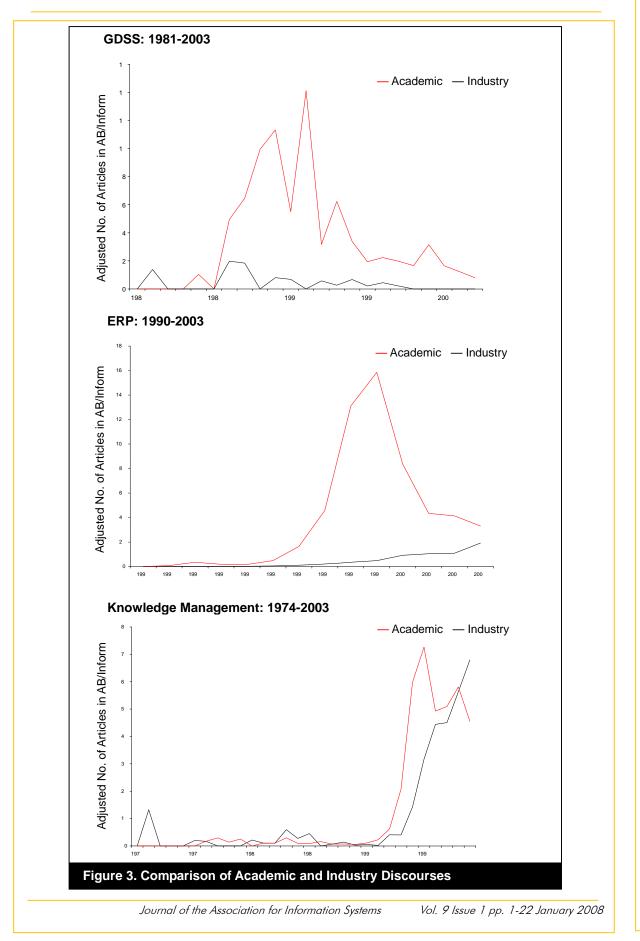
The relative volume of discourse over time for these three topics is thought-provoking. However, being but a surface expression, it raises rather than answers questions about the interaction of academic and industry discourses. Within a given domain of study, exploring this interaction in such substantive terms as leadership, sustainability, interdiscursivity, and creativity is necessary to gain a clearer understanding of the status of academic scholarship and, ultimately, its contribution to mutual discourse in the ecotone. This is a matter we will take up momentarily, but first we need to offer an additional qualification.

4.3. Discourse as Action

So far our discussion has depicted research discourse in an abstract way, almost as if what happens in discourse unfolds without the agency of human actors. However, as remarked at the beginning, the motivation for our essay is to explore the conditions under which *deliberate and concerted choices* can be made that will help shape the research directions of the field. Accordingly, we must go beyond a simple-minded functionalist view. In this regard, we note Fairclough's (2003) observation that discourse is first and foremost a form of social action, and so bringing agency into account here is quite readily done. The nut of the task is to situate agency and action within the context of the institutional forces we have invoked.

The shaping of academic discourse, we have argued here, is subject to institutional influences, and

¹¹ In the ABI/Inform Global database, articles that include the term "group decision support systems" in their titles or abstracts were counted. In ABI/Inform, an article is considered academic if "it is authored by academics for a target audience that is mainly academic, the printed format isn't usually a glossy magazine, and it is published by a recognized society with academic goals and missions." Considering the variation in the total number of articles indexed in ABI/Inform each year, we adjusted the article counts to factor out this variation, just as economists transform nominal into real currency value to eliminate the inflation effect. The same search strategy and adjustment technique were employed in deriving the other plots in Figure 3.



10

that certainly means that scholars confront having to produce competitive research products that will place well in the existing markets represented by premier conferences, "A " journals, funding sources, and the like. However, scholars are not <u>limited</u> to this kind of reactive response; there are also opportunities to *work institutionally* to shape these markets (Callon 1998, Fligstein 2001, Granovetter 1985). The fate of products within a particular research stream depends on larger efforts to create and sustain a space for that stream. Thus, research sub-communities, like organizations more broadly (Astley 1985, p. 235), "do not...fortuitously fit into predefined sets of niche constraints; rather, they opportunistically enact their own operating domains."

The traditional research products that sub-community members produce, such as articles and books, do help in such enactments: Once those researchers manage to get a foothold in publication outlets, a research stream can become to a degree self-sustaining. However, other vehicles and forums also provide important means for opening up "environmental space" (Astley 1985), among them editorial commentaries, special-topics panels, conference themes and track definitions, and the many and varied informal communications that take place on an on-going basis among colleagues in the field.

Such institution-building work (Galaskiewicz 1991), while directed at the construction of an internal academic market for the given research stream, can bring into its constitutive rhetoric persuasive arguments about current industry relevance. The larger cultural value that IS academia places on such relevance can unquestionably provide leverage to a research community seeking to pry open environmental space to occupy. Indeed, in an ironic twist, a stream's champions may even leverage industry hyperbole (Ramiller 2006, Swanson 2000) and topical fashionability (Wang and Ramiller 2004) in the cause of opening up space. The rhetoric of relevance may in some cases be largely symbolic, but in other cases the exercise of articulating the connections between emerging academic research and current industry interests can help in the establishment of a substantive ecotone for the research stream (refer again to Figure 1).

5. Four Research Proposals

We began this essay by arguing that our research community should develop a reflexive scholarship that attends to the institutional forces that shape and sustain the community's research agendas. This is necessary, we reasoned, if the discipline is to command more firmly its overall direction and manage the three problematic and contrary tendencies relating to industry bandwagons, insular sub-communities, and neglect of industry concerns. We then advanced an "ecology of markets" perspective that can be used to situate the possibilities for action in their larger institutional context.

We now propose four different kinds of studies that our community might pursue in order to understand better the status and developmental history of specific research streams, with the particular aim of identifying where and how the three characteristic problems arise. These forms of inquiry are, as we describe in detail below, institutional history, boundary ethnography, comparative discourse analysis, and deconstruction. These four approaches can be characterized along two dimensions, as Figure 4 suggests.

Expansive	Institutional history	Comparative discourse analysis			
Intensive	Boundary ethnography	Deconstruction			
	Social action	Discourse			
Figure 4. Suggested Research Approaches					

First, inquiry may be relatively *expansive*, with the intention of taking a perspective of broad social and/or temporal scope. Or, it may adopt a relatively *intensive* approach that focuses narrowly on a specific object of inquiry. Second, inquiry may focus on *social action*, as directly observed and/or

reflected in various documentary sources. Or, it may focus on the properties of *discourse* (text). Clear-cut distinctions along these two dimensions are not possible. Intensiveness vs. expansiveness is a matter of degree; and while studies of social action will inevitably require attention to discourse, studies of discourse must acknowledge that discourse is itself a form of social action. On the other hand, being clear-cut is not a virtue *per se* in this situation. Rather, the distinctions given in Figure 4 simply help us to envision the variety of possibilities for reflexive inquiry.

Also important to note is that we would not expect all of these research approaches to shed light on all three problems. Accordingly, we provide Figure 5 as an aid to the reader in following our discussion on the potential value we see in each of the types of research. As we will explain, all four approaches should be helpful in gaining perspective on the interaction between academic and industry discourses within the ecotone, and hence insight into the related problem of bandwagons. The particular value of a research strategy varies in each case around the four aspects of academic-industry interaction that we have introduced. The proposed research strategies are more selectively useful when it comes to shedding light on the problems of insularity and neglect.

	Institutional history	Boundary ethnography	Comparative discourse analysis	Deconstruction
Bandwagons o leadership o sustainability o interdiscursivity o creativity	x x (x) (x)	x x (x) (x)	x x x x x	(x) (x) x x
Insularity	x	(x)		x
Neglect	x	(x)		

Figure 5. Research Approaches and Issues Addressed

5.1. Institutional Histories

What we have in mind under the general category of *institutional history* is the historical study of the development and evolution of specific topical research communities. These communities in many cases will be exoterically focused, at least at some point during their lifespan, as suggested by the plots in Figure 3 for ERP and knowledge management. However, they need not necessarily be so; consider the plot for GDSS.

The interest here is in taking both a broad and a temporally extended view of such a research community and its work, bringing into the account such phenomena as the progressive development of the substantive issues making up the topic, the spread of interest in it among stakeholders, its appearances and impacts in forums like conferences and journals, and the influences of outside interests (e.g., industry). We are interested to learn how such research communities grow and prosper or, when entrepreneurial efforts fail, why that happens instead. A study of this kind would look to a variety of primary sources, including texts generated by the field (journal articles, conference proceedings, listserv archives, etc.), the business and trade press where this is relevant, and

retrospective interviews with leading actors from the research community. Analysis would attend to such matters as the relational structure among stakeholders (social network analysis may be helpful here), the use of publication outlets as an instrument to build normative pressure, and the discursive strategies employed by different stakeholder groups.

The management literature provides an example that is quite close to what we envision. In an historical study of the Quality Circles (QC) bandwagon, Abrahamson and Fairchild (2001) address the evolution of the QC knowledge market. From various historical sources, the authors find that the QC idea was first introduced from the technical sector to QC adopters, and thence to the consulting industry, to the business-press industry, and, finally, to the academic community. Similarly, the academic community lagged behind other stakeholders as publications on the topic grew and declined. Nevertheless, of the QC gurus identified by the authors, over half had completed a doctoral dissertation, a quarter were listed as members in the Academy of Management Membership Directory, and 22 percent were listed in the McGraw-Hill Directory of Management Faculty. Thus, despite the lag in scholarly interest, the academic community came in due course to occupy a significant share of the overall QC knowledge market.

Further models for conducting this kind of study in the information systems discipline might also come from work in neo-institutionalism (see Powell and DiMaggio (1991) for several examples) and the "new economic sociology" (e.g., see Granovetter and McGuire's study (1998) of the development of the American electricity industry).

In IS, we believe an interesting study of this type could be done around the engagement of our academic community with ERP, a topic that became highly fashionable in industry in the 1990s, while the corresponding academic discourse lagged, and yet continued to grow even after the industry discourse faded. What institutional actors on both sides came to play a role, at what points in time, in the definition of ERP as a topic worthy (and then, perhaps, no longer worthy) of discussion? Whose interests were engaged, and on what basis?

Relative to the four aspects that concern the relationship of academic discourse to industry discourse in the ecotone, we reason that institutional histories will speak most directly to leadership, by helping to identify who has been leading and who following, and how power and influence have determined who has voice, ownership, and prominence in the unfolding interaction. Institutional history should also be helpful in establishing whether and under whose auspices academic discourse survives industry discourse over the long haul (i.e., sustainability). Where interdiscursivity and creativity are concerned, institutional-historical study certainly might produce some overall impressions; however, assessing these aspects is more properly a role for the detailed analyses of texts (see the discussion of comparative discourse analysis, below).

Another revealing history might be done on the research community devoted to work on GDSS, a largely insular topic. GDSS received much of its initial impetus from externally-funded academic research centers, where the earliest GDSS technology was built and later transferred, in a limited fashion, to industry and government (Briggs and de Vreede 1997). Despite such traces of academic-industry interplay, the lack of significant development in industry discourse (refer again to Figure 3) begs closer inspection. What crucial institutional actors (journalists, professional associations, business executives, etc.) failed to rally behind this particular innovation? Why? How, at the same time, was sufficient institutional support marshaled within the academic world to obviate the practical need for a convincing and substantial move into the ecotone? How might network effects have come to matter in the case?

Neglect of topics of industry interest represents a more difficult challenge for study, when compared to bandwagons and insularity. The difficulty arises specifically from the <u>lack</u> of academic engagement: How does one study the absence of something? Nevertheless, while complete neglect may be an intractable situation for study, we believe it may be possible to carry out institutional histories of aborted attempts at creating academic discourses that shadow important industry discourses. Why, in such cases, would the champions of such programs of inquiry fail to build the

necessary networks of support within the academic community?

5.2. Boundary Ethnographies

Where the institutional-historical studies we envision would be broad in their temporal and social sweep, we believe that useful inquiry can also be conducted at a relatively micro level. For research streams in the ecotone, we are visualizing ethnographic research at the boundary where academics and industry representatives come together. Of prime interest would be well-defined phases in the history of a discourse, or even specific occasions, when the interactions are especially rich and momentous, and the parties involved are in a position to inform and shape one another's views. We have in mind here such potentially defining moments as the first conference on the topic. The ethnographer will be particularly interested in observation within the physical and virtual forums where academics and practitioners meet, including conferences and exhibitions, on-site industry-sponsored research projects, and topical events in universities' executive education programs. Asynchronous communications (broadcast, multi-cast, and dyadic) crossing the boundary of academia and industry will also be of interest, as will interviews with those involved on both sides of this divide. As for institutional history, we anticipate that boundary ethnography will most directly inform our understanding of leadership and sustainability, as visible aspects of the patterning in participation. Properly gauging the substantive interconnections across discourses, and the relative creativity of the academic side, will require closer textual analysis.

We cannot, at this time, point to any obvious illustrations of this category of research, either in information systems or in allied fields. Nevertheless, we feel this is a promising area for reflexive inquiry, in particular because it has the potential for complementing institutional histories of the type we discuss above. Such new inquiries might be retrospective, as well as contemporary. Consider, for instance, what might be learned from an ethnographic reconstruction of the first workshop on Computer-Supported Cooperative Work (CSCW), co-organized by Irene Greif of MIT and Paul Cashman of Digital Equipment Corporation in 1984 (Bannon and Hughes 1993), and the boundary-crossing interactions that constituted and flowed from this landmark event. Thus, focused ethnographic study of the constitution and effects of academic and industry interactions seems likely to inform our understanding of the larger patterns that institutional histories can reveal.

Focused ethnography of the sort we have in mind may also be helpful in contributing to our understanding of the emergence of insular research streams. In this case, however, rather than paying attention to transactions that take place across the academic-industry boundary, the interest would be in events, processes, and participant perspectives that help to make that boundary relatively impermeable. As is the case for topics that emerge in or find their way into the ecotone, we suspect that observations at early events dedicated to defining and legitimizing a subject area (e.g., the first workshop on a topic) may be especially revealing. The framing these events establish can, we suspect, play a significant role in foreclosing a move into the ecotone, whether as a consequence of intention, apathy, or oversight.

Boundary ethnography of neglected topics, like institutional history, presents the difficulty of trying to do research on something – academic engagement – that simply isn't there. Nonetheless, much as we have suggested for institutional histories, occasions may present themselves for micro-level study of failed attempts by particular individuals or groups to transport topics of industry interest into the academy.

5.3. Comparative Discourse Analysis

The two "social-action" research strategies we have proposed so far would utilize texts of various kinds¹² as sources of data for producing realistic depictions of the development and evolution of research sub-communities and their associated research streams. In this section and the next, we

¹² We construe "text" in the tradition of cultural studies to include not only written texts but also less durable expressions reflecting upon meanings, intentions, and constraints. Thus, in this sense conversations and even actions (Ricoeur 1981) observed in the course of ethnographic study would also constitute texts.

will examine how the discourses themselves might be made the subject of study.

We believe that close comparative study should be conducted of the parallel development of academic and industry discourses around various IT phenomena in the ecotone. For a given topic that has been of interest to IT researchers (e.g., ERP), comparative discourse analysis would examine in detail how language used in discussing the topic developed and changed in both academic and industry forums. Of particular concern would be the identification of markers that could help unveil leadership and flows of influence in the emergence, evolution, and extinction of themes within the topic over time. Patterns of these kinds, then, would speak to the interest (expressed in Figure 2) in the relationship between academic discourse and industry discourse. For mature discourses, analysis in this vein could potentially speak to all four aspects having to do with the challenge of bandwagons and the originality and value of academic inquiry (see Figure 5).

Barley et al. (1988) offer an exemplar for this kind of study. In an analysis of the evolving pragmatics of academic and industry language associated with the topic of organizational culture, Barley and his associates established that the academic discourse converged over time with the industry discourse. Thus, it was determined that the science in this case had followed the lead of industry, eventually conforming to it. As we noted earlier, this study helped to undermine the widely held but previously untested notion that "science discovers, and industry adopts."

Extending such a Barley-inspired analysis, study in information systems might explore the social and institutional conditions that give rise early in a research topic's life to distinctive discursive formulations across academic and industry contexts, but then lead subsequently to their convergence and *rhetorical closure* (Pinch and Bijker 1987). Such co-evolution and convergence may also lead to something like a symbiotic institutionalization of the focal concept, as may now be taking place with knowledge management (refer again to Figure 3). At this point, then, comparative discourse analysis begins to merge with the strategy for inquiry we are calling institutional history. Over time, we believe, such complementary work across IT-related topics could begin to provide the basis for building process theory concerning how institutional conditions behind research streams lead to various patterns in precedence, creativity, and sustainability in academic IT discourses.

While comparative discourse analysis has the potential to speak to all four aspects we have cited in characterizing the academic-industry interaction in the ecotone, it is inherently about comparison. In the cases of insularity and neglect, there is only one side to the discourse, and so comparative discourse analysis does not apply.

5.4. Deconstruction

Comparative discourse analysis calls for sampling texts generated by tandem and interrelated discourses over an extended period of time. In another kind of study, we visualize more narrowly focused inquiries that explore the institutional embeddedness of academic research through the analysis of individual texts. Critical discourse analysis (Fairclough 2003) and deconstruction (Norris 2002) are among the possible avenues for pursuing this kind of study. Our comments here focus primarily on deconstruction – although, as a practical matter, there are considerable similarities in the way each of these strategies approaches the analysis of text.

Deconstruction analyzes a text for its dependence "on taken-for-granted assumptions that may suppress, distort, marginalize, or exclude certain ways of thinking" (Beath and Orlikowski 1994, p. 351). The basic strategy in deconstruction, then, is to show how a document's rhetorical tactics serve to undermine its own core premises (Arrington and Francis 1989). The overall goal is to cast the text in such a light that it "no longer controls the reader's response" and accomplishes "a shift in the way the reader responds to the language used" (Kilduff 1993, p. 2). As a consequence, "the reader gains a different understanding of the text in question and is able to draw conclusions that may be strikingly at variance with those typically imposed upon the text" (Kilduff 1993, p. 3). Thus, deconstruction opens a text to multiple interpretations (Martin 1990, p. 340).

Although there is some difference in view about the proper scope of deconstructive analyses (Chiasson and Davidson 2007), some usefully hold that deconstruction may also probe how the text reflects upon the wider institutional context of its production (Beath and Orlikowski 1994, pp. 351-352):

While related to linguistic and hermeneutical interpretations..., a deconstructive analysis goes beyond the text itself in revealing how contradictions and distortions present in the text are reflections of conditions in the world... texts largely subsume assumptions, meanings, and expectations present in the contexts in which they are produced and consumed... the conditions of a text's creation and appropriation shape its form, content, and interpretation.

Accordingly (Kilduff 1993, p. 15),

The implications of a deconstructive reading are, therefore, not limited to the language of the text itself, but can be extended to the political and social context in which the text is placed.

In this expansive take on deconstruction, which addresses a text's relationship to ideological factors in its larger setting (Beath and Orlikowski 1994, Fairclough 1995), lies the potential for exploring how our research texts draw on, and depend on, wider discourses within the field and in industry. However, the intent of deconstruction is not merely to debunk, as is sometimes supposed (Kilduff 1993, p. 29). To the contrary, by liberating us from the enchantment that the rhetorical devices of the text cast over us, we arrive as readers on the threshold of more lucid <u>re</u>-constructions that draw on the suppressed and marginalized elements that deconstruction reveals (Boje 2001, citing Derrida 1999).

For inspiration we can consider Beath and Orlikowski's (1994) analysis of James Martin's book on information engineering. While their study does not address an academic work as such, the care with which it was carried out recommends it as a point of departure for studies of the type we have in mind. In the meantime, studies by management scholars in other areas, such as Arrington and Francis' (1989) deconstruction of an article by Michael Jensen, and Kilduff's (1993) deconstruction of March and Simon's *Organizations*, can serve as exemplars of the application of this approach to scholarly products.

We point by way of example to the rich possibilities for deconstruction of recent academic texts in the ecommerce arena. We specifically recommend the selection of texts published in prominent scholarly outlets at or around the zenith of the dot-com craze that reach conclusions appearing to echo industry's infamously inflated expectations. Deconstructive analyses of such texts, then, would explore how their rhetorical tactics and theoretical assumptions led to their enrollment in the larger currents of nonacademic belief. In this manner, deconstruction can illuminate situations where academic work, despite the conventional veneer of cool and impartial scientific reasoning, can become captive to larger ideological movements.

We expect deconstruction to be most helpful as a means of stripping away the posturing of academic texts toward independent investigation and exposing their dependency on industry discourse (refer again to Figure 5). Critical attention to interdiscursivity and creativity in this fashion will speak indirectly to issues of leadership and sustainability. Deconstruction may also prove illuminating in the analysis of texts from insular research streams. Here, we see promise specifically for unmasking the marginalization reflected in the superficial and decontextualized *pro forma* formulation of research implications for managers and practitioners.

6. Discussion

In this essay we have considered how the research directions of the information systems discipline get set in ways that are sometimes problematic. Three specific difficulties were noted, including the field's: (1) propensity to create research agendas modeled after the transitory infatuations that industry has with certain popular topics; (2) inclination to develop insular sub-communities that

consume resources for research programs that are of limited theoretical and practical interest; and (3) occasional neglect of topics that are of practical interest to industry. Despite the seemingly contrary nature of these problems, all three can be situated under a common perspective, as we have attempted to show here. The trick, we believe, is to consider the nature of the connections or, in some cases, the disconnects between academic discourse and industry discourse, as these are both shaped by, and help to shape, researchers' engagements with internal and external markets for scholarly work.

We have offered four proposals for reflexive inquiry that we believe will advance our field's collective understanding of the conditions that tend to foster these problems. Institutional history and comparative discourse analysis can provide perspective on the broader evolution in research streams, including insight into patterns of authority and influence, both between the discourse communities and within academic discourse itself. Deconstruction and boundary ethnography can get us closer, then, to the dependencies and dynamics as they play out in particular texts and contexts. Slicing things another way, institutional history and boundary ethnography can help to illuminate process in action, while comparative discourse analysis and deconstruction can expose the structure of belief and phenomenological reality as manifested within text.

Our effort to outline some strategies for reflexive research¹³ reflects our position that determining what leads to the formation of faddish research agendas, or disconnects between external and internal markets, is largely an empirical task. And we anticipate – and this is simply by pondering what we know informally about the histories of such topics as ERP, knowledge management, GDSS, and TAM – that investigations along these lines would reveal a good deal of variety in the origins, paths, and fates of research streams.¹⁴ But what can we hope to gain, practically speaking, from studying IT topics in this fashion? Before answering this question, we acknowledge some limitations to our analysis and suggestions.

First, we remind the reader that we have sought here to identify certain types of empirical research that might be usefully conducted; we would subsequently rely on the findings of actual research on particular streams to inform our community with regard to its research agenda. We argue that a modest investment in such research is worthwhile, although it offers no guarantees that its conduct and findings in any specific case will lead to actions that help bridge the academic/industry divide. There exists, in fact, a certain risk that the reflexive inquiry we recommend will lead to some researchers fretting more about their own positions in the broader scheme of things than focusing on the important questions of the field. We must also allow that the findings from such research might come up largely empty. Still, with these caveats, we remain convinced that the suggested reflexive research can provide new perspectives and aid in removing some blinders with which we as scholars have too often worked.

How so, then? To begin with, forewarned is forearmed. Understanding the positioning of a topic of interest, whether in the excluded, esoteric, or exoteric zone, can help the individual scholar anticipate some of the potential hazards that might arise in pursuing research on that topic. In short, our proposed reflexive research can serve to provide a kind of "consciousness-raising." The forces at work in shaping research directions being, indeed, *institutional* implies that they are, to a considerable degree, taken-for-granted and even invisible. Methods of inquiry that can pull these forces into the light of day potentially reduce the hold they have over us.

At the same time, for a topic originating with industry interests, the challenge goes beyond simply

 $^{^{13}}_{\cdots}$ The strategies we have suggested by no means exhaust the possibilities for reflexive research.

¹⁴ Our essay is informed by our peculiar perspective as North American-based researchers. As one reviewer rightly pointed out, institutional factors will differ in other contexts. In particular, governments may play a stronger role. For instance, in the U.K., the Research Assessment Exercise (RAE) serves to shape research agendas. In the European Union more broadly, research paths are often established by funding initiatives that bring research institutes and industrial partners together across former borders. And so it is important not to assume that a single story can be told about the course and fate of a given research topic. Nonetheless, such variation also serves to highlight the potential in an institutional-history research strategy.

freeing up one's mind in order to write original and genuinely insightful papers. It also raises the considerable difficulties involved in creating an internal market for such research products. For an exoteric topic the challenge is, if not to lead industry, then certainly to offer something creative and original compared to what industry already appears to know (or believe); however, this comes with the associated concern to achieve an interdiscursivity that supports the transfer of perspective and knowledge across the academic/industry divide.

In the case of exoteric topics, the research we propose has, we believe, considerable promise for helping to bridge this divide. It aims to engage the researcher in practice and discourse beyond academia, as exemplified in particular by our suggestion for boundary ethnographies. Beyond the insights that emerge from individual studies, we believe that the direct engagement of academic researchers with the world of the practitioner, whether through a social action or a discourse perspective, should be helpful to fostering understanding on both sides, especially to the extent that the researcher finds creative ways to bring the practitioner into the research process itself, for example, as a collaborator, informant/participant, sponsor, or member of an advisory board. Where exoteric topics are concerned, then, we are reminded that practitioners have direct stakes in the outcomes of our reflexive inquiries.

While reflexive studies can in this fashion help to guide the personal research commitments of individual scholars toward more fruitful relationships with practice, they can also contribute to the collective meta-discourse on the field's directions. (Consider, again, such forums as the Gordon B. Davis Symposium.) Where esoteric research streams are concerned, deconstruction may be especially helpful in identifying insular programs, and institutional history in surfacing and informing open debate on the continuing investment of our community's resources in those topics. (For example, consider how institutional history might amplify the recent collection of reflections on TAM in the Journal of the Association for Information Systems Special Issue 2007.) At the same time, we acknowledge that the incentives for taking on such research may be rather weak, as it is likely to be risky and controversial; it will certainly require the support of the editorial leadership of important journals if it is to have a future in publication. This said, we believe selective research on insularities in the field merits our collective attention.

Sorting out insular research from the larger category of research that is esoteric and yet of theoretical value is one thing.¹⁵ However, given that we are applied scientists, our work ought to occur mostly within the exoteric zone. How we are to measure ourselves in regard to application ought therefore to be an important preoccupation. As we suggested at the outset (with Professor Land's inspiration), the goal in our conduct of exoteric research should be to become more responsive to issues of practical interest while being less subject to the whims of industry fashion. Here, reflexive analyses of the types we have outlined can help make our community more alert to the demands involved in shaping research programs that are relevant and timely, and yet independent, original, and of distinctive value. This balancing act has to do both with the tenor of our work within the ecotone, and with the quality and creativity of our efforts to translate topics across the boundary from the excluded zone.¹⁶ And it has to do with having a clear view of the conditions, both in industry and in the academic community, that are constantly working to legitimize and even hype certain topics at the expense of others. Social analyses, of the type suggested by our proposals for institutional history and boundary ethnography, can aid in gaining this clarity about the networks of forces that sometimes work against our better collective interests - particularly where trendy and potentially faddish industry topics are concerned. And text-based analyses, of the type suggested by our proposals for comparative discourse analysis and deconstruction, can support our efforts to vigilantly monitor our work, in order to sort out the authentic, original, and even critical contributions from the "me too" groupthink. This responsibility for vigilance is one that falls to us not only as authors of research articles, but also as reviewers and

¹⁵ A reviewer invited us to consider how this very essay would fit within its own analytical framework. We would regard this as a contribution to the meta-discourse we just referenced, which is esoteric but - being of interest across a broad set of academic constituencies within the field – not insular. ¹⁶ We use "translate" here both in the sense of moving something and in the sense of finding equivalent expression

in different languages.

editors, conference organizers and track chairs, and participants in the field more broadly.

In conclusion, the central challenge within the ecotone to accomplish *relevance with independence* may require, as we have just noted, making choices in research that run counter to prevailing forces. This may call in turn for proactive institution-building work and, indeed, what may even be regarded as political action (e.g., penning critiques, staging panels, establishing conference tracks, gaining seats on editorial boards). In this regard, the perspective fostered by institutional- and ethnographic-based reflection on the course of past and present research topics should aid in raising the sophistication of our efforts. But the standard of *relevance*, in particular, also demands effective communication across discourses. This has to do with acknowledging and expressly mastering academic discourse as a form of social practice having potential reach beyond the academy's confines. This not only entails a greater commitment to and investment in appropriate inter-discursive channels (such as *MISQ Executive*). It also demands the kind of closer attention to and care with language that experience in such forms of inquiry as comparative discourse analysis and deconstruction can help to foster.

Raising the level of academic discourse in this way holds forth not only the hope of more firmly setting our own headings when facing the winds and whims of industry fads and fashions, but it also promises to enhance our helpfulness to our partners in industry as they carry on their own struggle with the realities and illusions of change.

References

- Abrahamson, E., Fairchild, G. 2001. Knowledge industries and idea entrepreneurs: New dimensions of innovative products, services, and organizations. C. B. Schoonhoven, E. Romanelli, eds. *The Entrepreneurship Dynamic: Origins of Entrepreneurship and the Evolution of Industries*. Stanford University Press, Stanford, CA, 147-177.
- Applegate, L.M. 1999. Rigor and relevance in MIS research careers on the line. *MIS Quarterly* **23**(1) 17-18.
- Arrington, C. E., Francis, J. R. 1989. Letting the chat out of the bag: Deconstruction, privilege and accounting research. *Accounting, Organizations and Society* **14**(1/2) 1-28.
- Astley, W. G. 1985. The two ecologies: Population and community perspectives on organizational evolution. *Administrative Science Quarterly* **30**(2) 224-241.
- Banker, R. D., Kauffman, R. J. 2004. The evolution of research on Information Systems: A fiftieth-year survey of the literature. *Management Science* **50**(3) 281-298.
- Bannon, L. J., Hughes, J. A. 1993. The context of CSCW. K. Schmidt, ed. *Report of COST-14* "CoTech" Working Group 4 (1991-1992). 9-36.
- Barley, S. R., Meyer, G. W., Gash, D. C. 1988. Cultures of culture: Academics, practitioners and the pragmatics of normative control. *Administrative Science Quarterly* **33**(1) 24-60.

Baskerville, R., and Myers, M. D. 2004. Special issue on action research in information systems: Making IS research relevant to practice – Foreword. *MIS Quarterly* **28**(3) 329-336.

Bauman, Z. 1992. Intimations of Postmodernity. Routledge, London.

- Beath, C. M., and Orlikowski, W. J. 1994. The contradictory structure of systems development methodologies: Deconstructing the IS-user relationship in Information Engineering. *Information Systems Research* **5**(4) 350-377.
- Benbasat, I., and Zmud, R.W. 1999. Empirical research in information systems: The practice of relevance. *MIS Quarterly* 23(1) 3-16.
- Benbasat, I., Zmud, R. W. 2003. The identify crisis within the IS discipline: Defining and communicating the discipline's core properties. *MIS Quarterly* **27**(2) 183-194.
- Boje, D. M. 2001. Narrative Methods for Organizational and Communication Research. Sage, Thousand Oaks, CA.
- Briggs, R. O., de Vreede, G.-J. 1997. Meetings of the future: Enhancing group collaboration with Group Support Systems. *Creativity and Innovation Management* **6**(2) 106-116.
- Bryant, A. 2004. Information systems: A discipline in search of a community; or vice-versa? *Prima Vera* Working Paper 2004-03, Universiteit van Amsterdam, Amsterdam.
- Callon, M. 1998. Introduction: The embeddedness of economic markets in economics. M. Callon, ed.

The Laws of the Markets. Blackwell, Oxford, UK, 1-57.
Chiasson, M., and Davidson, E. Texts as maps: Deconstruction as an approach to exploring IS
practice, Proceedings of the 13 th Americas Conference on Information Systems, 2007.
Chouliaraki, L., and Fairclough, N., <i>Discourse in Late Modernity: Rethinking Critical Discourse Analysis</i> , Edinburgh University Press, Edinburgh, 1999.
Davenport, T.H., and Markus, M.L. 1999. Rigor vs. relevance revisited: Response to Benbasat and Zmud. <i>MIS Quarterly</i> 23(1) 19-23.
Davis, G. B. 2000. Information Systems conceptual foundations: Looking backward and forward. R.
Baskerville, J. Stage, J. I. DeGross, eds. Organizational and Social Perspectives on Information Technology. Kluwer Academic Publishers, Boston, 61-82.
Derrida, J. 1999. Hospitality, justice, and responsibility: A dialogue with Jacques Derrida. R. Kearney,
M. Dooley, eds. Questioning Ethics: Contemporary Debates in Philosophy. Routledge,
London/New York, 65-83.
DiMaggio, P. J., Powell, W. W. 1983. The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. <i>American Sociological Review</i> 48 (2) 147-160.
Fairclough, N. 1995. Critical Discourse Analysis: The Critical Study of Language. Pearson Education, Harlow, UK.
Fairclough, N. 2003. Analysing Discourse: Textual Analysis for Social Research. Routledge, London.
Fligstein, N. 2001. The Architecture of Markets. Princeton University Press, Princeton, NJ.
Galaskiewicz, J. 1991. Making corporate actors accountable: Institution-building in Minneapolis-St.
Paul. W.W. Powell, P. J. DiMaggio, eds., <i>The New Institutionalism in Organizational Analysis</i> . University of Chicago Press, Chicago, London, 293-336.
Granovetter, M., McGuire, P. 1998. The making of an industry: Electricity in the United States. M.
Callon, ed., The Laws of the Markets. Blackwell, Oxford, UK, 147-173.
Granovetter, M. S. 1985. Economic action and social structure: The problem of embeddedness. American Journal of Sociology 91(3) 481-510.
Hannan, M.T., and Freeman, J. 1977. The population ecology of organizations. <i>Journal of American</i>
Sociology 82 929-964.
Hirschheim, R., Klein, H. K. 2003. Crisis in the IS field? A critical reflection on the state of the
discipline. Journal of the Association for Information Systems 4(5) 237-293.
Journal of the Association for Information Systems Special Issue 2007. Quo Vadis TAM – Issues and
Reflections on Technology Acceptance Research 8(4) 203-286.
Keen, P.G.W. 1991. Relevance and rigor in information systems research: Improving quality,
confidence, cohesion and impact. HE. Nissen, H.K. Klein, and R. Hirschheim, eds.,
Information Systems Research: Contemporary Approaches and Emergent Traditions, Elsevier
Science Publishers B.V., North-Holland, 27-49. Kilduff, M. 1993. Deconstructing organizations. <i>Academy of Management Review</i> 18 (1) 13-31.
King, J., Lyytinen, K. 2005. The market of ideas as the center of the IS field. Paper presented at the
Gordon B. Davis Research Symposium, Minneapolis, MN.
Lee. A. S. 1989. A scientific methodology for MIS case studies. <i>MIS Quarterly</i> 13 (1) 33-50.

Lee, A.S. 1999. Rigor and relevance in MIS research: Beyond the approach of positivism alone. *MIS Quarterly* **23**(1) 29-33.

Lyytinen, K., King, J. L. 2004. Nothing at the center?: Academic legitimacy in the Information Systems field. *Journal of the Association for Information Systems* **5**(6) 220-246.

Martin, J. 1990. Deconstructing organizational taboos: The suppression of gender conflict in organizations. *Organization Science* **1**(4) 339-359.

Melville, N., Kraemer, K., Gurbaxani, V. 2004. Information technology and organizational performance: An integrative model of IT business value. *MIS Quarterly* **28**(2) 283-322.

Norris, C. 2002. Deconstruction: Theory and Practice. 3rd ed. Routledge, London, New York.

Orlikowski, W. J., Iacono, C. S. 2001. Research commentary: Desperately seeking the "IT "in IT research —A call to theorizing the IT artifact. *Information Systems Research* **12**(2) 121-134.

Phillips, N., Lawrence, T. B., Hardy, C. 2004. Discourse and institutions. Academy of Management Review 29(4) 635–652.

Pinch, T. J., and Bijker, W.E. 1987. The social construction of facts and artifacts: Or how the sociology of science and the sociology of technology might benefit each other. W. E. Bijker, T. P. Hughes, T. J. Pinch, eds. *The Social Construction of Technological Systems*. MIT Press,

Journal of the Association for Information Systems

Cambridge, MA, 17-50.

Powell, W. W., DiMaggio, P. J. 1991. *The New Institutionalism in Organizational Analysis*. University of Chicago Press, Chicago, London.

Ramiller, N. C. 2006. "Hype! Toward a theory of exaggeration in information technology innovation," Academy of Management 2006 Best Papers Proceedings.

Ricoeur, P. 1981. The model of the text: Meaningful action considered as text. J. B. Thompson, ed. *Paul Ricoeur: Hermeneutics and the Human Sciences.* Cambridge University Press, Cambridge, 197-221.

Robey, D., and Markus, M.L. 1998. Beyond rigor and relevance: Producing consumable research about information systems. *Information Resources Management Journal* **11**(1) 7-15.

Scott, W.R. 2000. Institutions and Organizations, 2nd edition, Sage, Thousand Oaks, CA.

Szajna, B. 1994. How much is information systems research addressing key practitioner concerns? ACM SIGMIS Data Base 25(2) 49-59.

Swanson, E. B. 2000. Information Systems as buzz. M. Chung, ed. *Proceedings of the Sixth Americas Conference on Information Systems*, Long Beach, CA, 923-925.

Swanson, E. B., Ramiller, N. C. 1997. The organizing vision in information systems innovation. Organization Science 8(5) 458-474.

Swanson, E. B., Ramiller, N. C. 2004. Innovating mindfully with information technology. *MIS Quarterly* **28**(4) 553-583.

Wang, P., Ramiller, N. C. 2004. Community learning in information technology fashion. R. Agarwal, L. Kirsch, J. I. DeGross, eds. Proceedings of the Twenty-Fifth International Conference on Information Systems (ICIS), Washington, DC, 11-24.

Weick, K. E. 1995. Sensemaking in Organizations. Sage, Thousand Oaks, CA.

21

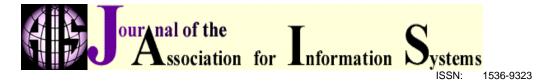
About the Authors

Neil Ramiller is the Ahlbrandt Professor in the Management of Innovation & Technology at Portland State University's School of Business Administration. Dr. Ramiller holds a Ph.D. from UCLA's Anderson School of Management. His primary research activities address the management of information-technology innovations, with a particular focus on the role that rhetoric, narrative, and discourse play in shaping innovation processes within organizations and across interorganizational fields. He is also engaged in research on the micro-politics of system design, and the social construction of information technology scholarship. Dr. Ramiller has presented his work at a variety of national and international conferences, and published articles in a number of journals, including *MIS Quarterly, Information & Organization, Information Technology & People, Organization Science, Journal of Management Information Systems, Communications of the AIS, and Information Systems Research.*

E. Burton Swanson is a Fellow of the Association for Information Systems and Professor at the Anderson School, UCLA, where he also serves as Co-Director of the Information Systems Research Program, and Associate Dean and Director of the School's Doctoral Program. Professor Swanson received his Ph.D. degree in Business Administration from the University of California, Berkeley. Earlier he worked with IBM, primarily in application system development. He has held visiting positions in Germany, Belgium, and England. Professor Swanson was the founding Editor-in-Chief of the journal, Information Systems Research, 1987-92. He was also a co-founder of the International Conference on Information Systems (ICIS), in 1980. He later served on the founding committee for the Association for Information Systems (AIS), 1993-94. Professor Swanson's research examines the life cycles of systems in organizations, addressing issues of innovation, implementation, utilization, and maintenance. He has authored more than ninety publications. His most recent work addresses organizing visions for innovating with IT.

Ping Wang is an Assistant Professor at the College of Information Studies, the University of Maryland at College Park. His research addresses how and why organizations innovate with new information technologies (IT). Specifically, he studies what makes IT innovations popular and what impact popular innovations have on organizations adopting and implementing them. Dr. Wang's research to apply computational linguistics to the studies of IT innovations is sponsored by the National Science Foundation. His papers have appeared in the *Journal of Information Technology, Information and Organization*, proceedings of the *International Conference on Information Systems*, and Best Paper proceedings of the Academy of Management Annual Meeting. Dr. Wang received his Ph.D. from UCLA 's Anderson School of Management.

Copyright © 2008, by the Association for Information Systems. Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and full citation on the first page. Copyright for components of this work owned by others than the Association for Information Systems must be honored. Abstracting with credit is permitted. To copy otherwise, to republish, to post on servers for commercial use, or to redistribute to lists requires prior specific permission and/or fee. Request permission to publish from: AIS Administrative Office, P.O. Box 2712 Atlanta, GA, 30301-2712 Attn: Reprints, or via e-mail from ais@gsu.edu.



Editor Kalle Lyytinen Case Western Reserve University, USA

	Senior E	ditors	
Izak Benbasat	University of British Columbia, Canada	Robert Fichman	Boston College, USA
Varun Grover	Clemson University, USA	Rudy Hirschheim	Louisiana State University, USA
Juhani livari	University of Oulu, Finland	Robert Kauffman	University of Minnesota, USA
Frank Land	London School of Economics, UK	Jeffrey Parsons	Memorial University of Newfoundland, Canada
Suzanne Rivard	Ecole des Hautes Etudes Commerciales, Canada	Bernard C.Y. Tan	National University of Singapore, Singapore
Yair Wand	University of British Columbia, Canada		
	Editorial	Board	4
Steve Alter	University of San Francisco, USA	Michael Barrett	University of Cambridge, UK
Cynthia Beath	University of Texas at Austin, USA	Anandhi S. Bharadwaj	Emory University, USA
Francois Bodart	University of Namur, Belgium	Marie-Claude Boudreau	University of Georgia, USA
Susan A. Brown	University of Arizona, USA	Tung Bui	University of Hawaii, USA
Dave Chatteriee	University of Georgia, USA	Patrick Y.K. Chau	University of Hong Kong, China
Wynne Chin	University of Houston, USA	Ellen Christiaanse	University of Amsterdam, Nederland
Mary J. Culnan	Bentley College, USA	Jan Damsgaard	Copenhagen Business School,
		ball Damogaala	Denmark
Samer Faraj	University of Maryland, College Park, USA	Chris Forman	Carnegie Mellon University, USA
Guy G. Gable	Queensland University of Technology, Australia	Dennis Galletta	University of Pittsburg, USA
Hitotora Higashikuni	Tokyo University of Science, Japan	Kai Lung Hui	National University of Singapore, Singapore
Bill Kettinger	University of South Carolina, USA	Rajiv Kohli	College of William and Mary, USA
Chidambaram Laku	University of Oklahoma, USA	Ho Geun Lee	Yonsei University, Korea
Jae-Nam Lee	Korea University	Kai H. Lim	City University of Hong Kong, Hong Kong
Mats Lundeberg	Stockholm School of Economics, Sweden	Ann Majchrzak	University of Southern California, USA
Ji-Ye Mao	Remnin University, China	Anne Massey	Indiana University, USA
Emmanuel Monod	Dauphine University, France	Eric Monteiro	Norwegian University of Science and Technology, Norway
Mike Newman	University of Manchester, UK	Jonathan Palmer	College of William and Mary, USA
Paul Palou	University of California, Riverside, USA	Yves Pigneur	HEC, Lausanne, Switzerland
Dewan Rajiv	University of Rochester, USA	Sudha Ram	University of Arizona, USA
Balasubramaniam Ramesh	Georgia State University, USA	Timo Saarinen	Helsinki School of Economics, Finland
Rajiv Sabherwal	University of Missouri, St. Louis, USA	Raghu Santanam	Arizona State University, USA
Susan Scott	The London School of Economics and Political Science, UK	Olivia Sheng	University of Utah, USA
Carsten Sorensen	The London School of Economics and Political Science, UK	Ananth Srinivasan	University of Auckland, New Zealand
Katherine Stewart	University of Maryland, USA	Mani Subramani	University of Minnesota, USA
Dov Te'eni	Tel Aviv University, Israel	Viswanath Venkatesh	University of Arkansas, USA
Richard T. Watson	University of Georgia, USA	Bruce Weber	London Business School, UK
Richard Welke	Georgia State University, USA	George Westerman	Massachusetts Institute of Technology, USA
Youngjin Yoo	Temple University, USA	Kevin Zhu	University of California at Irvine, USA
	Adminis		
J. Peter Tinsley	AIS, Executive Director	Association for Information	on Systems, USA
Reagan Ramsower	Publisher	Baylor University	