

# Research Commentary: Rethinking “Diversity” in Information Systems Research

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Three types of diversity have been prominent in the Information Systems discipline for over a decade: (a) diversity in the problems addressed; (b) diversity in the theoretical foundations and reference disciplines used to account for IS phenomena; and (c) diversity in the methods used to collect, analyze, and interpret data. History has played a major part in encouraging IS researchers to use diversity as a means of countering criticisms of their discipline and increasing their research rigor and productivity. In particular, frequent recourse to reference disciplines has underpinned much of the research that has been undertaken since the early 1980s. There are now signs, however, that the level of diversity that currently exists in IS research may be problematic. In this paper, we consider some of the benefits and costs of allowing diversity to reign in the IS discipline. We also propose a structure that we hope will facilitate discourse on the benefits and costs of diversity and on the role that diversity should now play in the IS discipline.

(*Diversity, IS Research, History, Reference Disciplines, Paradigms, Ethics*)

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Rhetoric is the master-word . . . and my main point is simply that like it or not we live in a rhetorical world

Van Maanen, 1995b, p. 687

## 1. Introduction

Diversity in research has been both the reality and the accepted norm by many in the Information Systems (IS) discipline for over a decade. By diversity, we mean:

1. diversity in the *problems* that we address within the discipline;
2. diversity in the *theoretical foundations* and *reference disciplines* that guide our research;
3. diversity in the *methods* that we use to collect, analyze, and interpret data.

In this paper we challenge this status quo, however, and consider the following question: *Is diversity beneficial or harmful for the long-term viability of IS as a discipline?* As we discuss in the next section, a few historical events have strongly influenced the pluralistic state of affairs

that typifies IS today. Nonetheless, we believe it is important for us to once again reflect on the effect these events have had. In particular, we need to rethink whether the discipline can continue to exist as the loose confederation of different interest areas that these events have evoked. If we conclude to the contrary, what kind of adjustments will then be necessary? To assist in launching this collective discussion, therefore, we will explore the effects of diversity on the current state of the IS discipline. Moreover, we will consider whether diversity can be sustained for the long run if the IS discipline is to survive and prosper.

## 2. Reasons for Diversity: An Historical Perspective

In the early days of IS as an academic discipline, John Dearden of the Harvard Business School published an article in the *Harvard Business Review* that characterized

management information systems (MIS) as a conceptual entity "embedded in a mish mash of fuzzy thinking and incomprehensible jargon" (1972, p. 90). The title of the article, "MIS is a Mirage," left little to the imagination as to Dearden's views on MIS. He referred to a report published in *Business Week*, which discussed the MIS programs that had recently been established at Wharton, MIT, and Minnesota. Dearden concluded that MIS specialists trained in such programs would have "little impact on most of the information supplied to management, particularly at upper levels" (1972, p. 91).

Dearden's critique was denounced by MIS practitioners and academics alike. Nonetheless, this kind of hostile criticism from a prominent individual in a widely read business periodical did not bode well for the future of the discipline. Its legitimacy had been seriously challenged. A ground swell of scepticism arose within academe about the discipline that threatened to undermine its already-fragile beginnings. In this light, pressures arose on MIS academics to prove to their colleagues in other disciplines that their contributions and their discipline were valuable.

To exacerbate matters, during the 1970s many MIS academics experienced problems in their career advancement. Promotions and tenure committees discounted the strong student demand that existed for MIS courses and the strong industry demand that existed for MIS graduates. Instead they focused on the low research productivity that was typical of many MIS academics. The discipline's credibility clearly would remain in tatters as long as its scholarship continued to be meager. Consequently, the need to build a research infrastructure became a priority in MIS academe.

A sea of change took place with two important events that occurred in the latter part of the 1970s. First, the initial major research journal in IS, the *MIS Quarterly*, published its inaugural issue in 1977. The journal provided a focal point for researchers who were interested in publishing IS research. Unlike many other publication venues, it had an editor (Gary Dickson) and an editorial board who were sympathetic to rather than indifferent to or averse to IS research. Moreover, authors could be reasonably confident that their papers would be read by colleagues who were supportive of rather than ambivalent to or hostile to their interests. The jour-

nal adumbrated a turning point in the politics of promotion and tenure decisions.

Soon after, a second key event took place: in December 1980, the first International Conference on Information Systems (ICIS) was held. The major objective of ICIS's founders was to establish a forum for showcasing and disseminating exemplars of good IS research. They perceived this objective would be accomplished in two ways: first through focusing on and celebrating high-quality IS research; and second, through establishing a doctoral consortium designed to influence the training of future IS researchers and ultimately the quality of IS research.

In our view, the first ICIS conference had a lasting impact on the IS discipline. We consider its singular outcome to be the reification of *reference disciplines* (as they came to be called) in providing the foundations for IS research. Perhaps this outcome was inevitable. Many of the conference's founders were trained originally in other disciplines. Their interests, therefore, had a substantial effect on the direction of the first ICIS meeting. For example, they commissioned a number of papers that had titles such as "MIS and the Behavioral Sciences," "Economics and MIS," and "Contributions of the Management Sciences to the Evolution of MIS." Each paper attempted to show the current and potential contributions that these reference disciplines could make to MIS.

Moreover, in his presentation at the conference, Keen (1980) pointed out that these reference disciplines were more mature than MIS (which was the "new kid on the block"). As such, they could be used by IS researchers to obtain models of good research. He also noted (p. 10) that "MIS is a fusion of behavioral, technical and managerial issues." In this light, he concluded no *one* reference discipline existed. He argued, therefore, that IS researchers could borrow from and learn from the theoretical foundations, formal methods, and exemplars of good research in multiple reference disciplines.

Keen's arguments were compelling. There seemed little reason to reinvent the wheel. If good tools existed already that could be adapted to IS research, why not use them? Moreover, if we lacked *legitimacy* as a discipline, why not use reference disciplines to show our colleagues that our methods and standards were no different from theirs? The quickest way to acceptance and

stability seemed to be compliance with the culture and research norms of reference disciplines.

The first ICIS conference shaped the agenda of North-American IS research for the next decade. During the 1980s, the IS discipline's focus shifted from discussing *what* to study (that is, questions about the content of topics and courses considered within the domain of the IS discipline) to *how* to study it. IS literature increasingly emphasized approaches to undertaking research, including selection of appropriate designs, measurement issues, statistical analysis, and epistemology. For example, the *MIS Quarterly* published articles on case research methods, the validity and reliability of measures, the importance of power in statistical tests, and process tracing methods. Several workshops on IS research were also held in North America during this time. They included the Harvard Business School's 75th Anniversary Research Colloquium in 1984 (McFarlan 1984) and three other colloquia sponsored by the Harvard Business School in the late 1980s: the first on qualitative research (Cash and Lawrence 1989); the second on experimental research (Benbasat 1989); and the third on survey research (Kraemer 1991).

In parallel with these activities, discourse in marked contrast to that taking place in North America was occurring among European IS academics. The two meetings that perhaps best characterized the European view of IS research during this period were held in Manchester in 1984 (Mumford et al. 1985) and Copenhagen in 1990 (Nissen et al. 1991). The latter occurred just prior to the 1990 Copenhagen ICIS conference.

The gist of the European view was that North American research was based mainly on an orthodox, positivistic traditions, that it made exclusive use of "objective" empirical research approaches, and that it advocated one universal scientific method. Many European academics denounced this view of IS research. Instead, they advocated greater pluralism, more diversity, greater use of methods that allow researchers scope for interpretation, and adoption of theoretical perspectives that are not founded on a rational and mechanistic view of the world. Researchers espousing these views have been characterized by Landry and Banville (1992) as the *knights of change*. The knights sought to discredit the perceived hegemony of the orthodox model, meaning the North American research model.

### 3. Current State of IS Research

What is the state of diversity, today, as a feature of research in the IS discipline? In our view, it can be characterized in four ways. First, relative to the 1980s, we believe even greater diversity exists. The discipline is now more pluralistic and accommodating of diverse research problems, research methods, theoretical foundations, and paradigms. We have surely learned political correctness in our discourses about acceptable research activities.

For example, North Americans and Europeans are no longer *two solitudes* crying lonely rhetoric about who has more legitimacy. Instead, many avenues are now available to facilitate dialogue between the two groups. For instance, the ICIS doctoral consortium has about half its students and faculty from outside North America. As well, about one-third of presentations at ICIS now are by non-North American academics. Major IS journals, such as the *MIS Quarterly* and *Information Systems Research*, also are more open to various ways of studying IS phenomena, including qualitative, interpretive, and case research methods. Furthermore, many new European and North American journals welcome papers that describe research which has employed interpretive approaches or, at the other extreme, formal, mathematical approaches. In short, there are now many publication outlets for those doing good research, irrespective of the epistemological foundations that underlie their work.

Second, the *quality* of the diversity has increased. Whatever their theoretical and methodological allegiances, nowadays researchers require a high level of expertise to be able to undertake work that ultimately leads to publication in the major IS journals. This outcome is a consequence of the focus we had in the 1980s on the procedures we must adopt to produce high-quality research. For example, in the *positivistic* tradition, it is now difficult to publish papers in top journals unless the measures used have high levels of validity and reliability. Moreover, in the past we might have assessed validity and reliability using factor analytical techniques. Nowadays, however, we might be asked to use structural equation modeling techniques and to explain why we chose to use PLS instead of LISREL.

Similarly, the game has lifted for academics using qualitative, intensive, interpretive methods to study IS phenomena. For instance, their papers must manifest

the deep knowledge required to make informed choices among research approaches like ethnography, hermeneutics, phenomenology, action research, and critical theory. Moreover, having chosen their approach, researchers must show their understanding of the appropriate genre required to articulate their procedures and their findings. While these approaches often allow researchers greater degrees of freedom in terms of describing their research outcomes, nonetheless the methodological and reporting standards they impose are still exacting.

Third, in our view the degree of reliance we have on reference disciplines, which we believe was motivated in large part by the first ICIS, is even stronger today. In a recent paper, Swanson and Ramiller (1993) examined the themes and reference disciplines underlying articles submitted to *Information Systems Research* between 1987 and 1992. They found that IS researchers still borrow from reference disciplines *more than* they contribute to the core literature of reference disciplines. The reference disciplines they identified were the same as those mentioned in the first ICIS conference—namely:

- *computer science*, which is the reference discipline for research undertaken on *engineering and design*,
- *management science* and *cognitive science*, which are the reference disciplines for research undertaken on *decision processes*,
- *organizational science*, which is the reference discipline for research undertaken on *social processes*,
- *economics*, which is the reference discipline for research undertaken on *economic efficiency and business processes*.

This reliance on reference disciplines appears set to continue unabated for some time yet. For example, Keen (1991), who coined the term at the first ICIS meeting, still believes that reference disciplines are the major foundations for IS research. Similarly, Lee (1991) admonishes us to think beyond reference disciplines that have positivistic roots and to employ others like architecture that tease out critical-social perspectives in our research. For both Keen and Lee, diversity is an implicit, dominant theme in their conceptions of the nature of IS research.

Fourth, we believe there is growing intolerance of research where rigor rather than relevance spawns diversity. Throughout the 1980s and early 1990s, for example,

a number of papers were published where minor, sometimes subtle issues of methodology were the focus of the work. Presumably these papers were published because improving research methods in the IS discipline was deemed to be a laudable goal. The outcome was diversity of a kind—one in which variations in methodology and analysis were primary and variations in problems and theories were ancillary.

Many IS researchers now take a jaundiced view, however, when they encounter papers that emphasize rigor over relevance. Recent editorial decisions at the *MIS Quarterly*, for example, now mean that papers will not be reviewed if their primary objective is to achieve, through the application of sophisticated methods, yet another minor improvement in some instrument that has already undergone multiple tests and enjoyed widespread use. Given limited resources, the editors believe that contributions to substantive problems and theory in the IS discipline are to be valued more than contributions to some arcane aspect of research methodology or statistical analysis.

#### 4. Some Potential Consequences of Diversity

In the introduction to our paper, recall we identified three forms of diversity that underlie past and current IS research: (a) diversity of problems; (b) diversity of theories; and (c) diversity of research methods. It would be useful if we could consider the implications of diversity in each of these areas independently. For example, as idealists we might argue that the types of theories we formulate and the types of problems we address should not be influenced by the research methods we use. The way we make sense of the world and the problems we choose to address, however, most likely are influenced by our experience with and affinity with different research methods. Research methods shape the language we use to describe the world, and language shapes how we think about the world. Similarly, the theories we use and the research problems we address are not independent. In this regard, long ago Kuhn (1970) pointed out that the problems and phenomena that command our attention are inextricably linked to the theories/paradigms we use to understand

the world. In short, the forms of diversity in each of these three areas are unlikely to be independent.

Nonetheless, for the sake of our discourse, the focus in the remainder of our discussion primarily will be *theoretical diversity*. Perhaps in our naivete, we believe that theories are the fundamental factor that shape the course of a discipline. Surely research methods should be subsidiary to the theory/concepts we are seeking to articulate. Moreover, we agree with Kuhn that we have difficulty seeing problems and phenomena in the world to research except through the lenses of the theories we employ. In this section, therefore, we wish to explore the following question:

*As IS researchers, should we continue to rely so much on reference disciplines to provide the theoretical foundations for our discipline?*

If the weight of authority is any guide, the answer to this question must be affirmative. As we pointed out in the previous section, many senior members of the discipline expound the virtues of reliance on reference disciplines. Indeed, some seem to brook no alternative to a reference-discipline regime for research in the IS discipline. They have sought fervently to inculcate this reliance into the IS research culture.

In a paper presented at the 1983 ICIS Doctoral Consortium, however, one of us has argued that our reliance on reference disciplines will prove to be a fundamental strategic blunder—one that will lead ultimately to the demise and disintegration of the IS discipline if we are not careful (Weber 1987). The argument is that disciplines attain a relatively stable place and identity among other disciplines only when (a) they have developed at least one powerful, general theory (paradigm), and (b) the theory (paradigm) is widely accepted as their own and *not* the property of some other discipline. Reliance on reference disciplines provides a short-term and relatively easy salve to the problems associated with having to increase publication output and methodological rigor. There are serious downsides, however, to the reference-discipline regime. It allows members of the IS discipline to abrogate responsibility for the hard task of identifying and building theories about those phenomena that make the discipline distinct. Moreover, it legitimizes the scramble for publications wrought by applying yet another reference-discipline theory to account

for some phenomena that are nominally called IS phenomena. In short, the argument is that the diversity which ensues under a reference-discipline regime distracts members of the discipline from the main game—namely, identifying whether there is a core to the discipline that gives it identity and, if so, articulating that core.

Should we care about IS attaining disciplinary status? We are worried about the current state of IS as described by some of our most senior colleagues, though we are sure whether they share our level of concern. For example, Keen (1991) uses the term *self-defined community* to describe IS. He comments (p. 27), "there is nothing unique to information systems research, in terms of either topics, theory or methodology, and there are many researchers who study the same topics as the information systems research community and in the same way but do not themselves as members of it." Similarly, King (1993, p. 293) calls IS an *intellectual convocation* of individuals from many fields who continue to pledge allegiance to those fields. He comments that many papers published in IS journals "could as easily and appropriately have been published in journals" belonging to other disciplines.

Our view, on the other hand, is that attaining disciplinary status is important because it manifests that we have reached some level of agreement about the theories (and therefore the associated phenomena) that characterize the IS domain. Potentially the costs are high if we fail to achieve consensus. In this regard, the distinguished organizational scientist, Jeffrey Pfeffer (1993, 1995), has argued that lack of paradigmatic development and the ensuing consensus that arises within a discipline undermine outcomes like funding levels, publication productivity, and political influence. His focus was organizational science, but his comments surely apply to IS. Nonetheless, he comments (1993, p. 617): "disagreement in theoretical approaches and even methodology will not prove detrimental as long as there is some agreement about what the fundamental questions or issues are and as long as there are some agreed upon ways of resolving theoretical and methodological disputes. At the moment neither condition holds."

Do Pfeffer's two conditions hold in IS? We doubt they do. In an effort to identify the fundamental questions in IS, for example, some of our colleagues have sought to

rely on so-called critical issues papers that report the opinions of IS practitioners on the major problems that confront them. This approach has received mixed support, however. Still another option that has been proposed is for the editors of the *MIS Quarterly* to come up with their list of important topics. This idea fizzled out quickly, however, when there was not much interest in such a scheme among the editors. In any event, recall that Kuhn (1970) has argued problems and phenomena in a discipline are perceived to be important because they are suggested by our theories. We might expect lack of agreement on fundamental issues and problems, therefore, if we do not have our own theories and we are driven instead by theories borrowed from other disciplines.

As to ways of resolving theoretical and methodological disputes, again, we see little consensus. For a start, theoretical disputes in IS are almost nonexistent, which again is to be expected when we rely on reference disciplines as the source of our theories. The likely place for theoretical disputes will be the reference disciplines themselves. In IS, the focus, instead, has been on methodological disputes—for example, positivism versus interpretivism. Given the level of generality at which these methodological disputes occur, however, we doubt they can be resolved in any agreed-upon way. In any event, for some IS researchers, disputes about methodology are a straw man. They entertain and distract a discipline when it lacks substantive theory to debate. Furthermore, to quote Keen (1991, p. 42), "methodology is a choice not a tyranny." Again, methodology is not the main game.

Where does this situation leave us? According to Pfeffer (1993, p. 618), "Without a recommitment to a set of fundamental questions—perhaps pursued in a multitude of ways—and without working through a set of processes or rules to resolve theoretical disputes and debates, the field of organizational studies will remain ripe for either a *hostile takeover* from *within* or *from outside*. In either case, much of what is distinctive, and much of the pluralism that is so valued, will be *irretrievably lost*" (our emphasis).

The same is true for IS. In other words, in IS we may enjoy diversity and breadth in our theories, reference disciplines, and methodologies. For some of our colleagues, these are the reasons they joined this field. Ac-

ording to Pfeffer, however, what we value and enjoy most may lead to our downfall! If theories keep proliferating, each with its own measures, terms, concepts, and research paradigms, at some point in time there will be nothing holding the IS discipline together.

Consistent with Pfeffer's predictions, there are some initial signs of breakup from *within*. For example, a number of our colleagues interested in the economics of IS (WISE), information technology issues (WITS), and diffusion of information technology (DIGIT) have been running their own conferences just prior to or just after ICIS. They argue, *inter alia*, that the main conference does not provide them with sufficient "air time," that the topics covered are too diffuse, and that their research will not be understood by many "mainstream" participants.

As another example, some of our colleagues have commented that they feel *Information Systems Research*, which is widely regarded as one of the leading journals in the discipline, no longer provides a balanced forum for the diversity of research covered within the discipline. Depending on the source of these comments, the journal has become too behavioral or too analytical, or too positivistic or too interpretive. Ironically, one factor that seems to have motivated these comments is John King's efforts, as editor, to assist readers by occasionally grouping similar articles into one issue of the journal. Selective attention on these particular issues seems to have fanned insecurities about the status of various types of research within the discipline.

Still another example is the departure of some of our senior colleagues to other disciplines or at least their growing affinity with other disciplines. Their names increasingly appear on papers in journals, on editorial boards, and on conference committees associated with other disciplines. For some, their departmental allegiance has also changed. In at least a few cases, their actions appear motivated by their disillusionment with the diffuse state of IS research and the discipline's failure to articulate a core that gives it identity and coherence.

There are also signs of breakup as a result of "hostile" activities from *outside* the discipline. For example, we know of several schools where colleagues in other disciplines have indicated their readiness to step in and teach courses that we consider to be in our pedagogic

domain. Furthermore, many topics we consider to be within our research domain have already become the focus of other disciplines. In addition, several schools have established new faculties (for example, Michigan and Berkeley) that have teaching and research responsibilities usually assigned to information system academics. These faculties have been given more visibility and resources than the faculties we usually place within the IS discipline.

We recognize, of course, that theoretical diversity also has an upside. In this regard, we briefly canvass some of the benefits in the next section. In the companion paper to this paper, also, Robey (1996) eloquently points out the positive outcomes that diversity has produced in the IS discipline.

## 5. Structuring Discourse on Diversity

We hope that it is apparent from our prior arguments that we consider the debate over the value of diversity in the IS discipline to be fundamental to our future progress (or lack thereof). In this penultimate section of our paper, therefore, we wish to propose a structure that we hope will facilitate discourse about whether diversity should be embraced or eschewed by the IS discipline. It is based upon the following questions:

1. What are the nature of and boundaries of the IS discipline?
2. What criteria should we use to evaluate its progress?
3. What factors facilitate and inhibit its progress?
4. Which facilitative or inhibitory factors can be manipulated to enhance the rate of progress?
5. How should these factors be manipulated?

In the subsections below, we briefly address each of these questions. Our goal is to illustrate the kinds of issues that we believe need to be considered under each question rather than to be definitive.

### 5.1. Nature and Boundaries of the IS Discipline

When we engage in discourse about the impact of diversity on progress in the IS discipline, we need to have a reasonable level of consensus about the nature of the discipline and its boundaries. For example, depending on whether we characterize the discipline as a self-defined community (Keen 1991), or an intellectual con-

vocation (King 1993) or a field (Whitley 1984), we are likely to focus on different phenomena and different indicators of progress. Similarly, we need to agree on whether our focus is cognitive phenomena or social phenomena (or both) associated with the production of knowledge about information systems (Banville and Landry 1989).

We also need to have a reasonable level of consensus about the boundaries of the phenomena we choose to characterize the IS discipline. For example, depending upon whether we see engineering-like phenomena or organization-like phenomena within the discipline, our perceptions of progress in the discipline may vary. Moreover, even if we agree on the overall boundaries, from time to time we might focus on subsets of phenomena within the discipline. Again, it is likely that we will have to agree on the boundaries of these subsets.

In short, if we are to have fruitful discourse on the benefits or costs of diversity, we will have to agree on the unit of analysis. Different *groups* of protagonists might disagree on the unit of analysis. Within a group, however, reasonable consensus must exist as a basis for a meaningful interchange of ideas among its members.

### 5.2. Criteria to Evaluate Disciplinary Progress

Part of our discourse must focus on trying to reach consensus about the performance indicators we will use to evaluate progress in the IS discipline. Already we have evidence that obtaining such consensus may be problematic. For example, Pfeffer (1993, p. 602) lists a number of outcomes that he sees as manifesting disciplinary progress, such as the level of resource allocations to the discipline, the connection between productivity and pay, and the time to publication for research. In an acerbic exchange with Pfeffer, however, Van Maanen (1995a, 1995b) indicates forcefully that he is not enamored with these outcomes. Instead, he sees indeterminacy and the quality of rhetoric in a discipline as markers of progress. Moreover, for Van Maanen, diversity is not something to be manipulated (constrained or embellished), but a goal to be achieved. He associates it with intellectual freedom and growth. In a similar vein, Banville and Landry (1989) and Robey (1996) perceive diversity and freedom in the IS discipline to be desirable goals. Indeed, Banville and Landry (1989) resist the idea of seeing one way of acquiring knowledge as being more desirable than others.

If we engage in discourse, therefore, on the value of diversity in the IS discipline, is it a *goal* to be achieved or a *factor* to be manipulated to achieve other goals? Moreover, what are these other goals? Our arguments will be at cross-purposes unless we can agree on the outcomes we are trying to achieve. We must make these outcomes overt rather than leave them as covert factors that thereby obfuscate the debate.

### 5.3. Factors That Facilitate or Inhibit Disciplinary Progress

Having chosen a set of indicators that we believe will manifest progress in the IS discipline, we must then try to determine those factors that facilitate or inhibit progress. In essence, we must adopt an existing theory or build a new theory of disciplinary progress and then try to determine the place of diversity within this theory.

Again, we will be faced with competing ideas. For example, Kuhn (1970) argues that the level of paradigm development within a discipline is the primary determinant of progress. From a Kuhnian perspective, therefore, diversity will be an anathema to progress in some phases of a discipline's evolution (Pfeffer 1993). Banville and Landry (1989) and Landry and Banville (1992) argue, however, that adoption of a monistic Kuhnian perspective is an inappropriate way to consider progress in the IS discipline. Instead, using Whitley's (1984, pp. 154–164) typology of intellectual fields, they classify the IS discipline as a "fragmented adhocracy"—one where diversity will be commonplace. According to Whitley's (1984) model, three factors primarily affect the way in which a discipline evolves: (a) functional dependence—the level of technical and procedural coherence with a discipline; (b) strategic dependence—the level of political interdependence among members of a discipline; and (c) strategic task uncertainty—the level of theoretical and conceptual coherence within a discipline. In Whitley's model, however, disciplinary evolution should not be equated with progress. Indeed, Banville and Landry (1989, p. 56) are emphatic in their view that classification using Whitley's typology is value free. Others, of course, might not be so sanguine.

### 5.4. Manipulable Facilitative or Inhibitory Factors

Once we have a model of the factors that facilitate or inhibit progress in a discipline, we can then determine which, if any, of these factors are manipulable. At least

for some of us, our goal will be to raise levels of the facilitative factors and to lower levels of the inhibitory factors. Again, we must determine the place of diversity in our model. If we deem diversity to be a goal (a desired *outcome* in the IS discipline), our objective will be to identify those factors we can manipulate to promote diversity. If, instead, we deem diversity to be a factor that affects other desired outcomes, our objective will be to see if and how we can manipulate diversity to better achieve these yet-to-be-specified outcomes.

Anecdotal evidence indicates we are likely to have difficulties in gaining consensus on those factors that are controllable and those factors that are uncontrollable in striving to achieve our desired goal of progress in the IS discipline. For example, in organizational science, Pfeffer (1993, 1995) believes that manipulation of certain structural and political factors will promote consensus in the discipline, which in turn will facilitate paradigmatic development and disciplinary progress. Van Maanen (1995a, 1995b), on the other hand, will have none of Pfeffer's arguments. As we discuss briefly below, some of Van Maanen's concerns about Pfeffer's contentions relate to ethical issues. Others, however, reflect his view that progress will be achieved in the organizational science discipline through the quality of the rhetoric of its members rather than enforced consensus—in other words, a member's ability to convince their colleagues of the validity of their arguments via the characteristics of the texts they write and the words they speak.

In the IS discipline, Banville and Landry (1989) also appear to doubt whether many factors can be manipulated to hasten progress in a discipline. They consider Whitley's (1984, pp. 220–238) contextual factors that lead to disciplines evolving in particular ways: (a) the "degree of reputational autonomy from competing intellectual organizations and the wider social structure in setting standards"; (b) the "degree of concentration of control over access to the means of knowledge production and validation"; and (c) the "structure of reputational audiences." They comment (p. 58): ". . . any transformation in these (contextual factors) may influence a field's status. But the mechanisms that produce these transformations are subtle. No individual member of our field can impose changes on these contextual factors and the resulting characteristics for MIS." Like Van

Maanen, they see rhetoric as important in the evolution of a discipline. For example, they provide prescriptions for IS researchers who advocate "methodological pluralism" to heighten the impact of their arguments (Landry and Banville 1992).

### 5.5. Altering Manipulable Factors

If we believe it is possible to manipulate factors to promote faster progress in a discipline, several issues arise. First, manipulation of some factors may be more effective than others. Because evoking disciplinary change is likely to be costly, identifying the most cost-effective factors to manipulate is therefore an important task. It would be useful if we could agree on the locus for our efforts to effect change.

Second, we must consider the social aspects of change. Recall, we highlighted above that disciplines have both a cognitive side and a social side. For some, the social side is more complex and more important than the technical side. As IS researchers, we are well familiar with the difficulties that arise when seeking to bring about social change in organizations. Because of their sometimes heterogeneous, fragmented nature, disciplines are perhaps the most difficult kind of organization in which to effect social change. When substantive change occurs within a discipline, Kuhn (1970) argues that some members of a discipline are incapable of making the transitions required. They become marginalized, and eventually they are read out of the literature. In a similar vein, Banville and Landry (1989, p. 58) argue a field is "perpetually created by the community of its owners and cannot be deliberately changed without the convergent actions of a large segment of its members."

Third, complex ethical issues abound when attempts are made to manipulate disciplines to effect change. Van Maanen's (1995b, p. 689) outrage at Pfeffer's (1993) recommendations for enforced consensus to promote disciplinary progress in part reflects ethical concerns: "In simple moral terms, the idea that we should somehow look toward paradigmatic consensus for our salvation is wrong. Even if such a world were possible . . . , it would be a most uncomfortable place to reside. It would be a world with little emancipatory possibilities, a world with even tighter restrictions on who can be published, promoted, fired, celebrated, reviled than we

have now." For Van Maanen, therefore, restricting diversity via disciplinary manipulation is repugnant because it is unethical (see also Canella and Paetzold (1994), and Perrow (1994), who raise other concerns about Pfeffer's recommendations). Similarly, in the IS discipline, Robey (1996) argues that tolerance of diversity and ethics are intimately bound. In our view, however, the acceptance of diversity as good is as much an ethical decision as its rejection on the basis of undermining disciplinary progress. Whether we accept diversity or reject it, we must put in place processes to either foster it, inhibit it, or leave it alone. Like it or not, these processes manifest our ethical decisions—we cannot skirt ethical issues.

## 6. Conclusions

Our plea in this paper has been for us to *think more carefully* about the consequences of diversity for the advancement of the IS discipline. On the one hand, a positive outcome of our embracing diversity to date has been improved rigor in the conduct of our research. On the other hand, in our view diversity has now taken us to a state where (a) we have difficulty distinguishing ourselves from others who are bigger and more powerful, and (b) our intellectual contributions, at best, are deemed problematical by our colleagues in other disciplines. We run the risk, therefore, that diversity will be the miasma that spells the demise of the discipline.

Our own view is that we need both a paradigm (one or more) and diversity in the IS discipline. A paradigm will serve to provide coherence to the IS discipline and to characterize the phenomena that make it different from other disciplines. In short, it is needed to articulate the core of the discipline. Hopefully the benefits that Pfeffer (1993) articulates will then accrue. The core of the discipline is only one component, however, of the body of knowledge that one must master to be a competent member of the IS discipline. In this regard, we cannot conceive of how any one paradigm (or a small number of paradigms) could ever account for all the phenomena that are properly the concern of members of the IS discipline. The tasks of developing, implementing, operating, maintaining, and managing information systems are too multifaceted for this outcome to occur. In this light, we would be foolhardy not to

continue to rely on reference disciplines for the insights they provide in explaining and predicting the wide range of phenomena that we will surely encounter as we undertake these tasks.

If we are to make progress, therefore, we believe we should not mix up the notions of the core of the IS discipline and the body of knowledge for the IS discipline. The former must give IS its distinctive character, and if one exists it might be narrow and fairly well defined. The latter is what we need to be competent IS practitioners, and it is likely to be broad and fairly ill defined (at least at the boundaries). In this regard, like Banville and Landry (1989), Hirschheim et al. (1996, p. 4) argue in their scholarly analysis of the foundations of information systems development that "a monistic, Kuhnian view of IS research is inadequate, . . .". We agree! but only if we are trying to account for the body of knowledge that we need within the IS discipline. Whether it is inadequate in the context of trying to account for phenomena that might constitute the core of the IS discipline is another matter. Let us eschew this type of confusion. In short, we believe diversity clearly has its place, but not as an excuse for shirking the fundamental responsibility to build our own theories to account for those phenomena that differentiate our discipline from others. Controlled diversity is the game, not a free-for-all.

In any event, if we remain proponents of diversity, a major challenge we now face is to be able to *manage* diversity within our research groups, journals, and conferences. Somehow we need to provide an environment in which IS researchers anchored in different reference disciplines can work together with equanimity, respect each other, and feel that their research is valued by their colleagues. Whether we can achieve such goals, however, is a moot issue. We will need to effect social changes within the discipline that history has shown us have proved to be inordinately difficult to accomplish—for example, tolerance of competing ideologies.

If, on the other hand, we shun diversity, we must face the brunt of the vacuum that will be created in our research endeavours and the political and ethical problems that may ensue. We will have to accept responsibility for developing our own theories, and appeals to reference disciplines to legitimize our work will seem disingenuous. To the extent we try to manipulate the

social fabric of the discipline to expunge diversity from our research efforts, we may incur the wrath of colleagues who value diversity and their intellectual freedom.

Perhaps we can settle on a way forward by appealing to "objective" evidence. For example, following Pfeffer (1993) we might try to investigate empirically the impact of diversity on whatever performance indicators we choose to measure advances in the IS discipline. We suspect, however, that the nature of our discourse will be otherwise. Following Van Maanen (1995b), we conjecture that rhetoric will play a large part in whether diversity grows or declines as a feature of the IS discipline. In the end, it will depend on how well each of us can convince and cajole our colleagues about the directions we should now pursue.<sup>1</sup>

<sup>1</sup> An earlier, condensed version of this paper was presented by Izak Benbasat as a keynote address at the June 1995 Pan Pacific Conference on Information Systems (PACIS) held in Singapore and again by Izak Benbasat as the MIS Division Distinguished Speaker address at the May 1996 Administrative Sciences Association of Canada (ASAC) conference held in Montreal.

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