Editor's Comments

The primary matter explored in this issue's commentary involves descriptions of four research areas that I believe to be both understudied and, if effectively pursued, likely to result in articles that are both rigorous and relevant. I hope my comments prove useful for individuals currently trying to decide which direction(s) to move next in their research programs. The commentary concludes with a few announcements, including a large number of editorial board changes.

Suggested Research Projects

In my editorial comments for the June 1996 and September 1996 issues of the *MIS Quarterly,* I raised issue with the lack of relevancy that seems to characterize much information systems (IS) research. Here, as an impetus to those wishing to pursue a more relevant IS research direction, I describe four topics whose (rigorous) study would likely result in the production of exciting submissions to IS journals. In subsequent editorial comments, I will be suggesting other topics that I believe possess much relevance for practice, but have been overlooked by IS scholars.

Funding the evolution of the IT infrastructure

As indicated in the latest MISRC/SIM Key Issues study (June 1996 issue of *MIS Quarterly*), information technology (IT) infrastructure issues are a central concern of today's IT executives. In fact, many observers argue that evolving an effective and efficient IT infrastructure is the paramount responsibility of an organization's corporate information services group. Increasingly, however, IT executives find themselves being asked to justify prior and future IT infrastructure investments on a value-added basis—a very difficult assignment when the benefits of such investments are largely indirect, intangible, and long-term in nature.

Three issues seem particularly salient and yet amenable to study. First, what tactics can be taken to raise senior management's appreciation of the necessity (and desirability) of ongoing IT infrastructure investment? Second, what tactics could be used to evolve a firm's IT infrastructure in the face of senior managements' unwillingness to directly fund such investments? Third, how are firms coping with the rapid obsolescence of infrastructure components (desktops, servers, telecommunication channels, etc.) when it is increasingly necessary to maintain a uniform functionality across a firm's user base? All IT executives are struggling with at least one of these questions. While certainly complex, there are resolutions to these challenges. (If there were no resolutions, we would not be observing firms applying IT in support of their strategic and operational initiatives!) Missing are systematic studies that can discover the patterns and best practices associated with these resolutions.

Understanding today's software acquisition/development processes

How are new software applications being introduced into firms today? I am not sure that IS scholars (or anyone else) really know. When one reads the practitioner press, attends practitioner conferences, or listens to practitioners talk, the reality being voiced seems filled with words such as: integrated application suites, off-shore development, common global solutions, extranets and intranets, Java, six-month time windows, objects, etc. The software development paradigm has certainly evolved over the last 10 years. What is not clear is whether this evolution is settling down or accelerating!

Again, I underscore three issues. Why these three? Because they seem as good a place as any to start. First, what appears to be the dominant practices (and associated processes and roles) for acquiring/developing software today, and how do these evolving practices differ across organizational contexts such as the vendor community, multidivisional firms, global firms, "best-of-breed" firms? Second, what are the primary ways in which today's practices differ from more traditional views (which still seem to predominate within scholarly literatures) of software acquisition/development? Third, are

the intentions and expectations of the sponsors and users of acquired/developed software different today than in the past? These admittedly are not very "deep" questions. However, they are the type of questions that must be asked if we are to begin to recognize the extent to which the knowledge gained from prior scholarly research on software acquisition/development processes can be used to frame or interpret existing practices.

Understanding "market-maker" phenomena in electronic commerce

Everyone today, including IS scholars, seems enthralled with the internet and fascinated by the idea of electronic commerce. What are firms doing? When do end-consumers buy off the web? What are effective design guidelines for websites ? But, while these may be important and interesting questions, they are not the questions being asked in executive offices. Instead, senior (IS and business) executives are wondering how their firms' business environments will change as electronic commerce moves from a novelty to being the primary channel through which commerce occurs.

Electronic commerce (EC) will most surely transform the landscape of every sector of our global and national economies. However, these changes are just now beginning to unfold. What is likely to happen? What change-trajectories will be followed across distinct sectors and industries? Three research questions seem particularly useful to begin the exploration of such issues. First, what is it about certain products and services that makes them most amenable to EC-enabled logistics, marketing, and sales? Second, what are the attributes of market structures that are most amenable to EC-enabled logistics, marketing, and sales? Third, how should a firm analyze its current market arrangements, as well as its own competencies, in order to realistically project the evolution of its business environment and, hence, its strategic options within this environment? It is certain that electronic commerce will enable forward-looking firms to serve "market-maker" roles in the near future, and these market makers will change the dynamics of market forces. Not certain are the following: (1) what are the natures of these market-maker roles, (2) what types of firms are likely to develop into market makers, (3) how and when will these transformations occur, and (4) will the incumbents serving as market makers enjoy short-term or long-term advantages in the marketplace? Studies examining such issues would greatly benefit both practice and research.

Strategies for designing the new information services function

The three phenomena just described, among many others, are producing dramatic shocks within the information services function of most organizations. In response, many information services organizations are "reengineering" their work processes and "restructuring" their internal and external relationships. But, do IT executives (or IS scholars) really understand the nature of these forces influencing such transformations? Undoubtedly, some do possess keen insight into what is transpiring. Many others, however, do not.

Three interdependent research issues might be fruitful in producing a needed understanding of the nature of today's information services organization. First, what are the primary roles being served by internal information systems groups, and how do these roles vary across different organizational contexts? Who are the primary stakeholders of today's information systems groups, what is the nature of the relationship to be fabricated with each of these stakeholders, and how do both these stakeholders and these relationships vary across different contexts? Third, what are the (technical, behavioral, and managerial) skill sets most important for these roles and these stakeholder relationships? Again, some fairly basic questions. But until solid answers exist to such questions, it is unlikely that truly successful redesigns of the information services function will occur.

Conclusion

My intent in describing these four research topics is not to "commission" specific studies but rather to direct the attention of IS scholars to current phenomena that are of great interest to IT executives.

These descriptions, by design and necessity, are admittedly overly simplistic. In fact, these research topics represent very complex phenomena, caught up in sets of powerful and turbulent forces. Still, the questions raised seem, to me at least, quite "doable." I hope others agree.

Announcements

As a service for both the *Quarterly*'s authors and readers, authors of accepted manuscripts are now invited to place the final version of their articles on their local websites and to provide the *MIS Quarterly* with the URL for these articles. Pointers to these electronic versions of accepted articles will then be listed on the forthcoming articles page (http://www.misq.org/archivist/forthcoming.html) of **MISQ Central.** This link will be removed when the article is actually published in an issue of the *MIS Quarterly*.

I would also like to take the opportunity to point out to readers the article entitled "Discovery and Representation of Causal Relationships in MIS Research: A Methodological Framework" by Byungtae Lee, Anitesh Barua, and Andrew B. Whinston. This is the first of a new form, as announced in my December 1996 commentary, of *MIS Quarterly* article—the Research Essay.

An uncommonly large number of Editorial Board changes are occurring with this issue of the *Quarterly.* After many years of service (at all editorial levels), Izak Benbasat has completed his tenure as a senior editor. Izak's counsel to his fellow senior editors has been as important a contribution to the *MIS Quarterly* as his editorial deliberations and decisions. Izak, thank you very much for your leadership and support. As might be expected, replacing an individual like Izak is a huge challenge. The *Quarterly* has taken the easy way out and appointed two new senior editors: Kalle Lyytinen (University of Jyvaskyla, currently visiting at Georgia State University) and Ron Weber (University of Queensland). Both Kalle and Ron have proven themselves invaluable as associate editors, and I look forward to working with them both in their new roles at the *Quarterly.*

A number of associate editors have left, and others have joined the Editorial Board. Dennis Adams, Cynthia Beath, Sid Huff, Julie Kendalll, David Morgan, and Peter Weill have each completed their tour of duty as associate editors. Each performed their assignments at a consistently high level of performance. The senior editors and I thank each of you very much for your many contributions to the *Quarterly!* With six associate editors leaving the Editorial Board and two becoming senior editors, eight new associate editors have been added. These are: Wynne Chin (University of Calgary), Fred Davis (University of Maryland), Mark Keil (Georgia State University), Tridas Mukhopadhyay (Carnegie Mellon University), Leyland Pitt (University of Wales), Arun Rai (Southern Illinois University at Carbondale), Tapio Reponen (Turku School of Economics and Public Administration) and Jane Webster (University of Waterloo). Welcome to each of you! Finally, three associate editors were offered reappointments to the Editorial Board: Sal March (University of Minnesota), Peter Todd (Queen's University) and Richard Watson (University of Georgia). Thanks for your continuing support!

—**Bob Zmud**
Editor-In-Chief