Introduction to Special Issue on IS Curricula and Pedagogy

This special issue of MISQ draws attention to educational topics that have become increasingly important to both IS practitioners and academics.

IS practitioners have two educational missions. The first involves training end users and the second, training IS staff, IS departments in organizations often bear the responsibility for training end users on new or modified application systems, on the new tasks associated with those systems, and on the changing roles of users within the organization. Often this education has to be fitted into busy workdays and needs to be just-in-time and of immediate applicability to the worker. The second educational mission for IS practitioners is to keep up with rapid changes in technology and the rapidly changing vision for how technology can be used to restructure organizations and markets. For example, there is a need in many organizations to move IS professional staff from developing and maintaining legacy systems to the world of distributed client-server systems and, more recently, to the emerging world of electronic commerce. Educating IS staff often ranks high on lists of issues most important to CIOs.

Educational issues are even more important to academics. First, we have an obligation to our students and their future employers to teach effectively and to deliver an appropriate curriculum. Second, as the competition between business schools intensifies, teaching and curriculum issues are receiving more emphasis, and teaching performance is becoming a more important input to faculty salary and promotion decisions.

Because IS is a relatively new academic discipline, the need to deliver courses that are highly perceived by students and our academic peers is even more intense. We will not thrive as a discipline unless we do a good job in the classroom. For example, a number of deans and senior faculty from other disciplines are concerned by the content of the IS MBA core course, the faddish changes in its content, and the uneven performance of the course in student-teacher evaluations. As a result, some schools have either abandoned the IS requirement in the core altogether, reduced the size of the course, or made it part of a menu of options. This has occurred despite the obvious and pressing need for managers who understand how technology can be used to restructure organizations and help them compete effectively.

There is, therefore, a pressing need for both IS practitioners and academics to understand the basics of effective teaching and to develop educational programs that fit the needs of their constituencies. This is especially true because the tools of our own profession—computers and communication networks promise to revolutionize the business of education. The education industry, along with the healthcare industry, has been burdened by escalating costs and massive inefficiencies. In the future, economic necessity will drive down costs and increase the relative importance of non-traditional modes of teaching. IS practitioners and academics can, and should, play a leadership role in guiding our organizations toward effective use of technologies such as multi-media, video conferencing, and the World Wide Web in the educational process.

Unfortunately, few academics have had any formal education in teaching beyond the teaching effectiveness seminars that are provided by our schools. It is important for us to understand the educational concepts and theories that have been developed over the years by learning theorists and others in the education field. A major new thrust in IS research should be to try to understand and adapt these theories in the light of the new educational technologies. The first two articles in the special issue address this topic.

The remainder of the issue is devoted to topics of curriculum content. Several factors make content a difficult issue for IS academics. The first factor is the rapid progress in technology that drives changes in the job skills required of our students and in our perceptions of how IT is transforming organizations, markets, and society as a whole. In some topic areas, the rate of change is such that last year's, or even last semester's, lecture cannot be repeated again. The second factor that leads to difficulty in designing IS courses and curricula is the great variance in computer and information literacy among students. As computers become more pervasive in schools and homes, we can hope for a more uniform distribution of basic computing skills in our incoming student body. However, most of us are still wrestling with the problem of how to get students with little or no knowledge of basic technology to appreciate the conceptual and managerial issues concerning its potential for transforming organizations. The third factor is the newness of the information systems field as an area of academic study. We have not yet formed a coherent framework for what we teach. We miss a Samuelson textbook as in economics or a Horngren as in accounting—a text that defines lasting concepts that everyone agrees should be mastered by all students. Perhaps the rapid pace of change and the ever-changing possibilities for the pace of change in IT will preclude the development of a compelling academic paradigm in the near future. In the meantime, we must struggle to separate important and lasting principles from the chaos of technical change and management fashion. The last four papers provide a research perspective on the problem of developing IS curricula.

I hope that this special issue contributes to both the theory and practice of good teaching and good educational content in the information systems field. More importantly, I hope that this collection of excellent articles in one of the most prestigious journals in our field will encourage future growth in research by IS academics on issues of pedagogy and curriculum.

Acknowledgements

Many people have contributed their ideas and time to the development of this special issue over the last two years. The idea for a special issue on education in a major IS research journal (like the birth of the new AIS professional society) traces its origins to a meeting called by Paul Gray at the ICIS Conference in Dallas in December, 1993. An ad hoc committee consisting of Maryam Alavi, Daniel Couger, Gordon Davis, James Emery, Jeffrey Hoffer, Omar El Sawy, Seev Newmann, and myself was formed to consider what could be done to further the cause of IS education. The IS'95 undergraduate curriculum (see article in this issue) and this special issue of *MISQ* are the major outcomes of the work of this committee. (IS'95 evolved into a much larger effort involving a number of other people working under Dan Couger's leadership.)

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Most importantly, a special message of appreciation is due to the authors who submitted articles for this special issue. The time and effort involved in producing these papers was evident in their quality. This made the task of selecting the papers that were to appear very difficult.

Finally, I want to thank the administrative staff at the Stern School, and especially Pat Kong, for so cheerfully and efficiently handling the additional work involved in producing this special issue.

> -Edward A. Stohr **New York University** Special Editor