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Recognizing the Relevance of IS Research and Broadening the Appeal and Applicability of Future Publications

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RECOGNIZING THE RELEVANCE OF IS RESEARCH AND BROADENING THE APPEAL AND APPLICABILITY OF FUTURE PUBLICATIONS

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ABSTRACT

Highly applicable research is done not only by some IS faculty members, but also by software firms, consulting firms, and other organizations whose products and services depend on IS research they perform. The applicability of IS research done by academics is evident in the concepts and explanations in many textbooks. There should be little surprise, however, that practitioners who expect readability and direct applicability have little patience for IS publications shaped by the concerns and expectations of academia. It might be possible to broaden the acceptance and relevance of IS research publications by distributing them in both a short version designed to demonstrate relevance and a long version designed to demonstrate rigor and provide supporting details.

I. INTRODUCTION

I would like to contribute a few comments to the research relevance debate based on my background as a professor, practitioner, researcher, and textbook author. The comments cover four topics:

1. IS faculty members do not have a monopoly on IS research

2. IS research obviously has had an impact by informing practice and teaching

3. Like customers of any product, practitioners (and many IS faculty members) should be expected to avoid journals directed toward a different audience

4. There is a way to make academic research more relevant (on average) and academic journals more approachable.

II. IS FACULTY MEMBERS DO NOT HAVE A MONOPOLY ON IS RESEARCH

Some of the comments previously contributed to the research relevance debate seem to imply that IS faculty members somehow have a monopoly on IS research. In other words, if it's IS research, then an IS faculty member must have done it and if an IS faculty member did it, then it is probably IS research. (And further, since many IS faculty members do research that is not immediately useful, it follows that IS research in general is not useful or "relevant").

A personal example shows why I don't accept this line of argument. During the 1980s I was with the manufacturing software firm Consilium, which was partly or directly responsible for creating the concept "manufacturing execution system" and demonstrating the most of what were then considered "manufacturing systems" actually were directed at purchasing and inventory control rather than at improving shop floor manufacturing (much as current sales force automation systems do comparatively little to automate sales activities). Our efforts in working with our customers to develop better product concepts and operational features were not very dissimilar from the efforts by academic researchers at the University of Arizona and elsewhere to develop the ideas and features of group support systems.

The implication is that IS faculty members do not have a monopoly on IS research. This research has been and will be carried out by all of the following, many of whom are paid directly by industry to do their research and produce "relevant" results.

- software firms, which work with their customers to develop new concepts and create operational features that make those concepts real

- consulting firms, which compile and conceptualize their experience and knowledge related to best practices, analytical methods, success factors, etc.

- research institutes and think tanks (e.g., SRI, RAND, Xerox PARC, Bell Labs, IBM Research), which do a combination of fundamental and applied research, sometimes under contract for firms or governments.

- business intelligence firms, which do research about current IT market conditions, technological trends, customer acceptance of various current features and benefits, etc.

- researchers associated with other disciplines whose work is related to IS even though it may be centered in, for example, organizational behavior, human factors, economics, marketing, or computer science.

The fact that some of the research from these other sources is initially published or only published in industry newsletters, general management journals, etc. does not make it invalid and does not reduce its applicability to either IS research or practice.

III. IS RESEARCH OBVIOUSLY HAS HAD AN IMPACT BY INFORMING PRACTICE AND TEACHING

Although it is easy to think of particularly arcane journal articles that have no real world impact, past research certainly contributed to the current understanding of information systems. This understanding is conveyed to undergraduate and graduate students who presumably go into the world and apply at least some of it. This understanding also influences the way consulting firms work with their clients and the way business people learn about IS-related topics in business periodicals.

As the author of an information systems textbook I face the following question with each new edition: Does the material in the previous edition best explain what I currently think students (and instructors) need to understand to be able to apply information system concepts in their future academic work and in the real world? Here are some of the examples of research that that is cited directly or that greatly influenced ideas and examples in the new edition coming out this summer:

- Mintzberg - how managers use information

- Simon - steps in decision making

- Tversky, Kahneman, Slovic, et al - common flaws in decision making

- Markus - different views of user resistance

- Hammer and Champy - reengineering examples

- Standish Group - failure rates of information systems

- Ives and Olsen - different levels of user involvement

- Neumann - information system risks

- Mason – PAPA (privacy, accuracy, property, access) framework for ethical issues

- Sviokla - how the implementation process affects success

- Brown and Vessey - NIBCO big bang ERP implementation

- Broadbent and Weill - business maxims and IT maxims

- Chen - entity-relationship diagrams

- Ives and Learmonth - customer involvement cycle

- Davenport and Prusak - knowledge management

The list could go on and on. Some observers might complain that some of the work cited is not real research because the original source was not in an "A" journal. For purposes of writing a textbook that presumably influences understanding and practice I do not find that objection convincing. My job as a textbook author is to explain the ideas in the clearest manner possible using any concepts and examples that make the material understandable by someone who wants to learn it.

While many of the concepts in the textbook are directly related to or at least derived from published research, it is also worth noting that most of the examples in each new version of the textbook are as current as possible and therefore come from news and business periodicals. This only makes sense. Whether or not a concept that still applies today was initially formulated 30 years ago, illustrating it with a current example involving today's high profile firms such as Dell, eBay, Schwab, DoubleClick, or Napster is preferable because current real world examples help readers appreciate the importance and applicability of the concepts.

IV. LIKE CUSTOMERS OF ANY PRODUCT, MOST PRACTITIONERS (AND MANY IS FACULTY MEMBERS) SHOULD BE EXPECTED TO AVOID JOURNALS DIRECTED TOWARD A DIFFERENT AUDIENCE

The most basic concepts in marketing involve identifying the customer and producing something that the customer actually wants. Open your favorite academic journal (*MISQ, ISR, CAIS*, etc.) and ask who the customer is. Open your favorite business periodical (*Business Week, Fortune, Harvard Business Review*) and ask the same question. Open your favorite newspaper (*Wall Street Journal, New York Times*, etc.) and ask the same question. It should be no surprise that business professionals with scarce time and great need to remain current generally prefer to read periodicals whose content and style are directed toward them rather than toward the research community and peer review committees. While there are certainly exceptions, it almost seems unreasonable for practitioners to want to read academic articles whose style and content is directed toward a different audience.

I am not particularly concerned that practitioners don't read *MISQ* or *ISR* very much because these journals are not directed toward them. I am frankly much more concerned with how difficult and often painful it is for an academic to read an academic journal. Articles in what are generally

viewed as the "best" academic journals sometimes seem designed to be a difficult read due to:

- lifeless writing style
- pretentious language
- unnecessary use of unfamiliar jargon
- numerous references to articles and books most readers are unfamiliar with and can't obtain easily
- extensive reliance on statistical analysis that is uninteresting and unconvincing to most practitioners and many academics

V. THERE IS A WAY TO MAKE ACADEMIC RESEARCH MORE RELEVANT (ON AVERAGE) AND ACADEMIC JOURNALS MORE APPROACHABLE.

The following is an excerpt from a letter I wrote in 1999 to the participants in a published discussion of relevance and rigor in *MIS Quarterly*, March 1999. Currently *MIS Quarterly* publishes both complete articles and one-page "executive overviews." The following suggests that *MIS Quarterly* (and possibly other journals) should achieve greater relevance without losing rigor by publishing each article in both a short version designed to demonstrate relevance and a long version designed to demonstrate rigor and provide supporting details.

* "The March 1999 issue of *MISQ* contained a valuable discussion of relevance and rigor. To follow up on this I would like to propose changes in *MISQ*'s product that might do two things:

* lead to a better average combination of rigor and relevance in the articles it publishes, both in terms of the topics and in terms of publishing them on a more timely basis (as suggested by Davenport and Markus, p. 20)

* give greater weight to relevance in the refereeing process, thereby advancing MISQ's other product, "constructive feedback to authors of the manuscripts it does not publish." (Allen Lee, Editor's Comments, p. vi.)

"MISQ is not obligated to publish articles today in the same form it used 20 years ago. It might be more able to foster both rigor and relevance by requiring that each article be submitted in two parts.

"1. The first part is a five-page overview that emphasizes what the author believes should be interesting to most readers of *MISQ*. This focuses primarily on relevance and results rather than on academic precedents or methodological nuances. It should have no references or few references, and especially not references like "It is hard to make systems work effectively." (Machiavelli, 1518; Gingrich, 1995). It should present only the data tables that provide the greatest insight into the situation. Its conclusions should focus on applicability to real world concerns.

"2. The second part of the article is similar to the complete article that would be published today.

"If an article is accepted, the first part goes into the paper publication and the second part becomes accessible through an MISQ Web site. The entire article is blessed as a refereed publication but it now has a larger audience. The main points are genuinely accessible to casual readers who want to keep up with the field while the entire article is available for PhD candidates who want to study the references and research details. Furthermore, limiting the articles in the paper publication to five pages means that many more articles can be published and that the articles can be more timely because they don't have to wait as long to arrive at the head of the publication queue. The average time from initial submission to publication should be less than one year in a fast moving field. Moving in the direction recommended here should support a goal of achieving much faster time to publication within several years.

"The two parts of an article are rigorous in different ways. The first part is rigorous in terms of its argument about what the question is, what the conclusions are, and why this matters. In Benbasat and Zmud's terms (p. 12), it is "clear, simple, and concise." If the first part is unconvincing there is little reason to invest time in trying to read the second part. The second part is rigorous about intellectual precedents, theories, research methodology, data collection, data analysis, possible threats to validity of the work, etc. The requirement that the authors submit both parts should help the authors write articles that are more relevant because one part of their submissions will focus mainly on relevance."

ABOUT THE AUTHOR

Steven Alter is Professor of Information Systems at the University of San Francisco. He holds a B.S. in mathematics and Ph.D. in management science from MIT. He extended his 1975 Ph.D. thesis into one of the first books on decision support systems. After teaching at the University of Southern California he served for eight years as co-founder and Vice President of Consilium, a manufacturing software firm that went public in 1989 and was acquired by Applied Materials in 1998. His many roles at Consilium included starting departments for customer service, training, documentation, technical support, and product management. Upon returning to academia, he wrote an information systems textbook whose fourth edition will be published in the summer of 2001 with a new title, *Information Systems: Foundation of E-business*. His articles have appeared in *Harvard Business Review, Sloan Management Review, MIS Quarterly, Interfaces, Communications of the ACM, Communications of AIS, Futures, The Futurist,* and many conference transactions.

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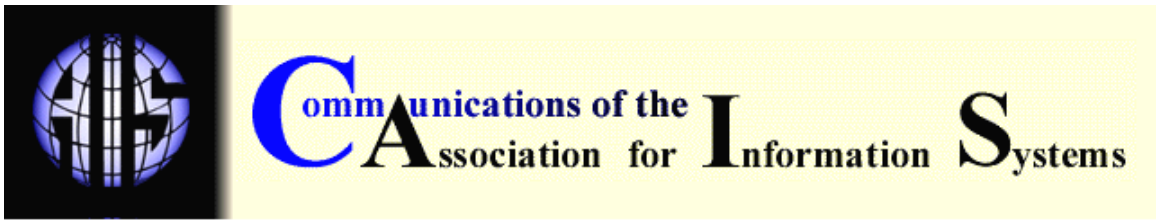

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