The Relevance of Information Systems Research: Informing the IS Practitioner Community; Informing Ourselves

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Abstract

Discussion of the relevance of Information Systems research to the practitioner community began in the 1990s. Though the issue has faded from top-tier journals, the problem remains. This article provides the first comprehensive consideration of the major papers relating to IS research relevance. It also recognizes that the problem of relevance is not one that is likely to be solved at the global IS level, or even the university level. Rather, the relevance of IS research ultimately will be determined by each individual researcher. To facilitate individual researchers' progress in moving toward greater relevance, this research provides a concise plan of specific actions that are within the control of each individual IS researcher. These actions involve both how researchers attempt to inform the practitioner community about their work, and how researchers inform themselves about the concerns of practitioners. Several specific actions for improving the relevance of individual research are detailed.

Keywords: rigor, relevance, research, practitioner, academic, journal, research agenda, information systems

Introduction

The discipline of information systems (IS) is relatively young when compared to other bodies of inquiry. The institutionalized use of computers in the 1960s for transaction processing and reporting ("Information Systems," 2003), and the infusion of technology for enhancing productivity and competitive advantage in the 1970s (Bhattacherjee, 2001) created the need for an IS academic community. Academic research requires rigor; the applied nature of IS research requires relevance. Robey and Markus (1998) write, "… the symbols of rigor: copious references, formal notation, detailed statistical analyses and theoretical abstractions…the symbols of relevance: simple graphs, 2x2 typologies, "bulleted" summaries, and punchy anecdotes." can be contradictory pressures for IS researchers. Lack of relevance in IS research was first noted by Peter Keen at the 1990 IFIP conference at Copenhagen (as cited in Bhattacherjee, 2001). The issue was popularized again in the late 1990s when the Winter 1998 issue of *Information Resources Management Journal* published two articles and *MIS Quarterly* devoted a significant portion of the March 1999 issue to the topic. A special volume on relevance was printed by the *Communications of the Association for Information Systems* in 2001. It was predicted by Paul Gray (2001) that this would not be

the last discussion on the issue. He was correct. Informing Science published a special series titled *Informing Each Other* in 2003 focusing on the gap between research and practice (Fitzgerald, 2003).

Considering the Relevance of IS Research

Beginning the Discussion (1998)

Robey and Markus (1998) first detailed the problems IS researchers face while attempting to serve two masters: standards of the academy and the practitioner audience. The standards of the academy are the benchmarks for which tenure and promotion dossiers are evaluated. The highly-valued qualities of an extensive literature review, references to peer-reviewed journal articles, sophisticated statistical analyses and model-building are of little value to the practitioner if practical and timely advice are not included and communicated in an appealing style of writing. The constant and rapid changes in technology accelerate the need to produce practical research on emerging technologies. Robey and Markus outline four strategies to satisfy both consumers of information. The first two strategies outline support and methodology; the last two address communication methods. The first strategy is to cultivate practitioner sponsorship for IS research by academics. This funding ensures that the practitioner's research needs are met by scientifically-trained investigators. The Advanced Practices Council (APC) of the Society for Information Management (SIM) offers funding for projects that APC members identify as their highest priority for leveraging IT for competitive advantage. (http://www.simnet.org/Content/NavigationMenu/Advanced_Practices_Council/Overview10/Overview.htm). University research centers that are supported by private contributions can focus on specific interests of that organization or agency. The second strategy is to adopt new research models. Traditional IS research methodology follows the social sciences practices however research models used by policy studies and education are appropriate for IS research. Applied theory, evaluation research and policy research simultaneously support both rigor and relevance. The ability to communicate results of the research should appeal to both audiences. The third strategy is producing consumable research reports that have four key characteristics: an appealing style that is clear and simple; a story line that connects the reader to the problem and provides a solution; an evidential base that is described and explained in a simple but credible manner; and support from useful and usable logic and theory that focus on things that can be controlled. The fourth strategy is academic support for nontraditional research outlets. "…we value these sources … more than we value our own papers in leading academic journals." (Robey & Markus, 1998, p. 8).

Senn (1998), writing in the same issue of *Information Resources Management Journal*, independently reports that the research conducted by IS scholars is not valued by a large number of the practitioner community. While he echoes the previously stated strategies of forming alliances with practitioners and focusing on communicating the research findings through multiple versions of research reports dependent on the audience, Senn also suggests researchers focus on important practitioner issues. He cites SIM's APC and the annual report, *Critical Issues of Information Systems Management*, produced by Computer Science Corporation (last published in 2001) as primary sources of CIO management and critical technology issues. Research that confirms prior assumptions and beliefs has limited, if any value to the practitioner. IS academic researchers must select methods of research that generate theories, ideas and hypothesis that produce objective findings. Lastly, Senn recommends establishing a personal or institutional research program focusing on a general area of investigation. Using multiple methods that examine those previously identified important issues can identify the underlying theory or the probable impact if no theory is identified.

The Discussion Continues (1999-2001)

The March 1999 issue of *MIS Quarterly* included an opinion piece on rigor and relevance in MIS research with commentary by other noted IS researchers. Benbasat and Zmud (1999) begin their investigation with a definition of relevance. The most "relevant" topic to practitioners is that which is implementable and pragmatic. An article's relevance lies in the ability to exploit an opportunity or resolve a problem. According to Benbasat and Zmud, rigor is no longer an issue for academic IS research. In the effort to compete with other business school disciplines, the quality of IS research is comparable to those disciplines, and cumulative traditions are beginning to develop in a number of theoretical streams that comprise the IS discipline. Eight recommendations are given for increasing the relevance of IS academic research. The first three recommendations concern research topic. Similar to Senn, topics should be chosen with careful attention to areas of interest to senior practitioners. In addition to "key issues" surveys, these topics can be culled through academic/practitioner discussions of key research areas, academics attending practitioner conferences and developing personal relationships with individual practitioners. Due to the publication cycle for academic journals, Benbasat and Zmud recommend focusing on fundamental issues that are likely to be important in three years. The next four recommendations are directed toward an article's purpose. IS researchers should focus on likely outcomes of the research that might be utilized by practitioners; produce cumulative, theory-based, context-rich bodies of research that provide usability; and develop frames of reference that practitioners can grasp and apply to their organization. The last two recommendations are similar to Robey and Markus' communication strategies. An article should be written in a clear, simple and concise manner that provides accessibility for all potential readers. Editorial review boards of the leading IS journals are encouraged to publish articles that are characterized by both rigor and relevance. Davenport and Markus (1999) refute four recommendations of Benbasat and Zmud. Since the IS discipline has an applied nature, better role models to emulate are those with clinical practices, e.g. medical and law. Practitioner publications should be valued by the IS academic community and IS journals should be more practitioner accessible. IS academic researchers should integrate consultants' key success factor, rapid production of research, with academic rigor. Senior practitioners are not the only valued consumer of IS research; undergraduate students are prospective practitioners and graduate students are current practitioners and at some point will be the senior practitioners. Lee (1999) concurs with Davenport and Markus and strengthens their statement that IS research should emulate research in medicine and law by noting that medicine and law are not natural sciences, but professions. The goal of research in the professions is effectiveness in actions. He recommends that IS research should be conducted in the inquiry methods of both the natural sciences (theory-driven) and the manner of the professions (practice-driven).

Watson, Taylor, Higgins, Kadlec and Meeks (1999) interviewed 17 leaders in the IS academic field in October – November 1998, prior to the *MIS Quarterly* publication discussed above. All agreed that IS research had become more rigorous. However, the appropriate balance between rigor and relevance of IS research was addressed without consensus. Primary audience (academics vs. practitioners), research issues (temporal vs. longer-lasting value), and journals (academic vs. trade) had proponents on either side.

Westfall (1999) concludes that IS has a window of opportunity to proactively take action in the issue of relevance as it relates to research topics, journal policies and procedures, and institutional (tenure and promotion) considerations. Three stakeholders are defined: relevance to students, relevance to practitioners, and stature within the academic community. Research topics contrary to commercial interests, unsolved problems, and issues economically unattractive to commercial researchers are three scenarios that provide a positive impact on the defined stakeholders. Journals need to speed up cycle times, increase electronic access to their content, involve practitioners in reviews and revise norms for style and tone positively impact all stakeholders.

The *Communications of the Association for Information Systems* (CAIS) devoted a special volume to the issue of relevance in March 2001. It is interesting to note that there was no mention of rigor in this special issue volume. There was consensus that practitioners do not read published work in leading IS journals. Reasons included the previously stated abstractness of the research and the quality of writing. Also included was the observation that there is a lack of practical experience of faculty (Gray, 2001). Unique to this publication was the inclusion of a practitioner's position paper. Glass (2001) argued that IS research cannot be both rigorous and relevant. "Rigorous experimental research demands a highly controlled, limited-scope environment. But for research to be useful to the world of practice, it should be conducted in an environment as close to that real world as possible. And the real world is hardly highly controlled and of limited scope." Most articles written by academic researchers in this special issue agree that this dichotomy exists and that it should continue to exist. Dennis (2001) acknowledged two distinct constituencies that must be served by IS research with very dissimilar expectations: knowledge exploration for academics and knowledge exploitation for practitioners. Knowledge exploration is to change the future, not assist the present and knowledge exploitation should be left to the professional schools, i.e. computer science and engineering. Bhattacherjee (2001) focused his evaluation of relevance on the needs and concerns of the stakeholder. Using the expectations of business professionals to evaluate relevance in basic (academic) research which may not deliver any tangible business value for several years or decades would be problematic just as academics would have difficultly in accurately judging the relevance of practitioner-oriented projects. SIM's APC is an attempt to bridge the expectations. Khazanchi and Munkvold (2001) expanded on the definition of stakeholder to include practitioners, scholars, educators, users, politicians, economists, citizens, society, nation and global. The potential value of the research and the character of relevance can vary considerably within each of these groups. The transient nature of the time frame for relevance was discussed and how the rapid change and advancement in technology may compress that time frame.

And the Discussion Continues (2003)

The special series "Informing Each Other" issued by *Informing Science* is introduced by Fitzgerald (2003) with the premise "… that practice has often preceded theory in the IS field." The Sage missile-defense system and the SABRE airline reservation system are cited as examples of sophisticated systems that exceeded the maturity of the theory at the time. Also stated is his belief that more research is needed in real context. Söderström and Nordström (2003) propose the development of a "regional IS knowledge network" to make researchers more aware of practice and practitioners more aware of IS academic research. They suggest a research and development cooperative effort between academics and companies within a specific geographic region. This consortium will focus on concrete projects that synthesize existing knowledge and experiences, disseminate information through seminars, workshops and conferences to both members and nonmembers of the consortium, and culminate in action. Moody (2003) and Lang (2003) focus on the failure of traditional dissemination channels and communication breakdown of IS research. Jordens et al. and Phillips (as cited in Moody, 2003) claim that "For research to make a practical difference, research results must be readily available to practitioners, and must be actively used and implemented in everyday practice." Moody substantiates these claims through two case studies and the use of the World Wide Web to provide systematic reviews, on-line literature searching tools, posting or practitioner-developed "knowledge products", and using listservers. Lang argues that communication problems between academics and practitioners have three critical aspects. (1) A lack of a suitable communication channel. (2) The style and form of academic writing presents a language barrier. (3) Few academics have adequate real-world experience while practitioners are capable of devising solutions to IS problems independent of academic input. To solve these problems, Lang recommends actions to provide incentive for academics to consider IS practitio-

ners as consumers of university-based research. Professional experience and competency in technical skills should be considered during the evaluation process as well as instructors who blend applied teaching methods with academic theory. Additional recommendations echo previous suggestions: more recognition should be given to publications in peer-reviewed books and practitioner-based outlets; researchers should consider electronically publishing their work in practitioner-friendly forms such as reports, briefs and white papers; a more fluid and open writing style should be used; and IS researchers should consider spending more time within industrial contexts.

Actions for a Relevant IS Research Agenda

As the prior discussion has shown, there have been dozens of suggestions for how we might improve the relevance of IS research to the practitioner community. When actual action items are sifted from the more general rhetoric, five major areas for potential action emerge. These five areas and the relationships among them are depicted in Figure 1. As this figure shows, a researcher might employ activities in Table 1 to improve the relevance of their research topics and Table 2 to improve the relevance of their methodology. They might then select actions in Table 3 to improve dissemination of their research results to the practitioner community. Further, the actions listed in Table 4 might be used to build closer relationships with, and a greater understanding of practitioners. Closer relationships between researcher and practitioner may also define better topics and methodology. Finally, the actions in Table 5 might be used by universities to encourage more relevant research through the faculty evaluation program. Clearly all of these actions would not be employed by any one group of researchers or any one university; however, taken as a whole, they provide the first attempt at comprehensively identifying those potential actions that could be taken to improve the relevance of IS research.

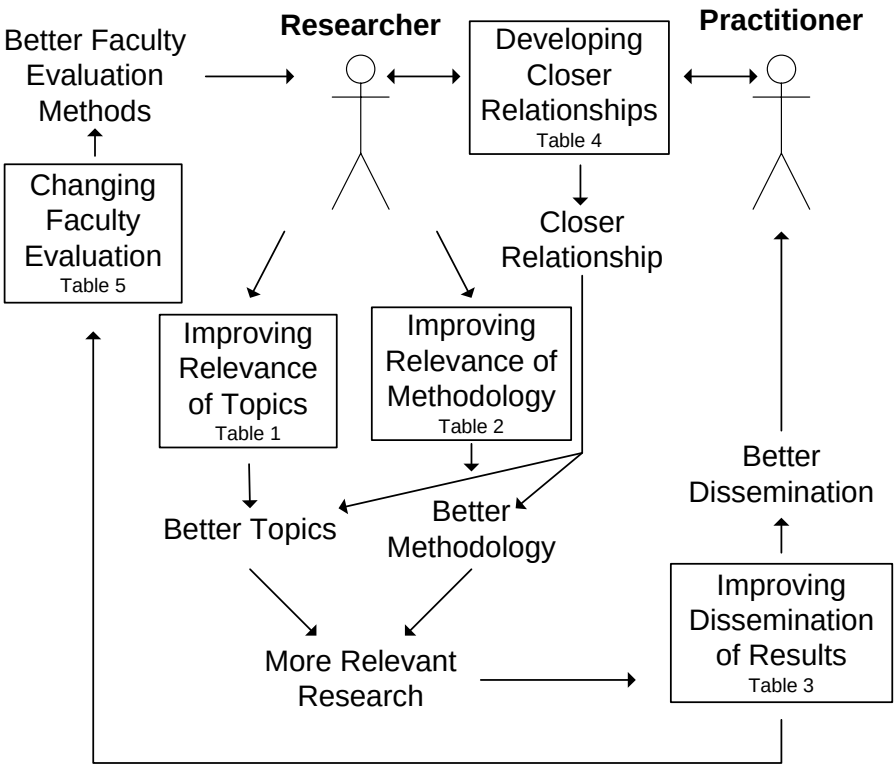

Figure 1: Actions for a relevant research agenda

Those ideas that have been suggested for improving the relevance of IS research (shown in Tables 1-5) can be viewed in both macro and micro terms. At the macro level, one can consider

what might be done by universities and the broader IS research community as a whole. At the micro level, one can consider what an individual IS researcher might do to improve the relevance of his or her research.

Table 1. Actions for improving relevance of research topics

Look to practice to identify research topics	Benbasat & Zmud (1999)
Insure topic is related to future interests of key stakeholders	Benbasat & Zmud (1999)
Focus on likely outcomes, not inputs	Benbasat & Zmud (1999)
Develop frames of reference useful to the practitioner	Benbasat & Zmud (1999)
Produce cumulative, theory-based, context-rich bodies of research	Benbasat & Zmud (1999)
Consider issues contrary to commercial interests or economically unattractive to commercial researchers	Westfall (1999)
Consider unsolved problems	Westfall (1999)
Target practical research that is consumable by undergraduate and graduate students	Davenport & Markus (1999)
Include practice-driven activities in research	Lee (1999)
Develop closer relationships with practitioners	See Table 4.

Table 2. Actions for improving the relevance of research methodology

Adopt new research models	Robey & Markus (1998)
Consider methods that produce objective findings rather than ones that merely confirm prior assumptions and beliefs	Senn (1998)
Utilize high-tech laboratories	Watson & Huber (2000)

Table 3. Actions for improving research relevance through improved dissemination of results

Produce consumable research report	Robey & Markus (1998)
Create a system for distribution or research results to IT professionals who do not peruse the journals (Webzines, ISWorld)	Senn (1998)
Support nontraditional research outlets	Robey & Markus (1998)
Communicate outputs of research in such a way that it might be utilized by practitioners	Benbasat & Zmud (1999)
Insure that research articles are clear, simple and concise manner	Benbasat & Zmud (1999)
Support journals that publish manuscripts balancing rigor and relevance	Benbasat & Zmud (1999)
Support practitioners' outlets in addition to making academic journals more practitioner accessible	Davenport & Markus (1999)

Modify the traditional journal review process: • Eliminate blind reviews • Place reviewer names, editor names, and review iteration times on published manuscripts • Maintain a public web archive of manuscripts under review • Maintain a public web archive of rejected manuscripts	Weber (1999)
Modify the traditional journal review process by reducing review cycle time Revise norms for style and tone	Westfall (1999)
Increase electronic access to journal contents	Westfall (1999)
Reward publishing in practitioner-oriented outlets	Westfall (1999)
Place summary pages of research on the Web	Ho (2000)
Allow downloading of Web reports of research	Ho (2000)
Conduct publicity campaigns	Ho (2000)
Initiate the MISQ Executive	Lee (2000)
Leverage the World Wide Web to improve dissemination of results • Systematic literature review • Searching tools • Knowledge products • Listservers	Moody (2003)
Increase recognition for publications in peer-reviewed books and practitioner-oriented outlets	Lang (2003)

Table 4. Actions for developing closer relationships with practitioners

Cultivate practitioner sponsorship	Robey & Markus (1998)
Form alliances with practitioners	Senn (1998)
Involve practitioners in program issues	Westfall (1999)
Keep abreast of issues most important to CIOs	Senn (1998)
Organize student internships	Watson & Huber (2000)
Initiate student projects	Watson & Huber (2000)
Facilitate company sponsored courses	Watson & Huber (2000)
Offer specialized masters degrees	Watson & Huber (2000)
Offer training programs	Watson & Huber (2000)
Cooperate on secondary school programs	Watson & Huber (2000)
Actively use advisory boards	Watson & Huber (2000)
Offer symposiums with the business community	Watson & Huber (2000)
Initiate executive roundtables	Watson & Huber (2000)
Sponsor executive in residence programs	Watson & Huber (2000)
Support faculty internships	Watson & Huber (2000)
Support new business ventures	Watson & Huber (2000)
Initiate externally funded research centers	Watson & Huber (2000)
Support faculty sabbaticals and internships in corporations	Khazanchi & Munkvold (2001)
Encourage faculty to consult	Khazanchi & Munkvold (2001)
Revise doctoral program requirements to include business experience	Khazanchi & Munkvold (2001)

Form partnerships with professional and discipline-based organizations	Khazanchi & Munkvold (2001)
Spend more time within industrial contexts • sabbatical leave or career breaks within industry • associate or part-time academic posts • campus industrial parks • attend practitioner conferences • scheduling "practitioner days" at academic conferences • developing part-time professional education programs	Lang (2003)
Initiate a regional knowledge network	Soderstrom & Nordstrom (2003)

Table 5. Actions to encourage research relevance through the faculty evaluation process

Include technical competence in faculty evaluation criteria	Westfall (1999)
Modify existing faculty appraisal schemes to give greater weight to professional experience and competence in technical skills	Lang (2003)
Encourage and reward applied teaching methods that demonstrate the practical utility of academic theories	Lang (2003)
Increase recognition for publications in peer-reviewed books and practitioner-oriented outlets	Lang (2003)

Macro Level: The Broader IS Community

At the macro level, suggestions have been made that universities might begin recognizing publication in practitioner journals for promotion and tenure processes (Davenport & Markus, 1999; Lang, 2003; Robey & Markus, 1998; Westfall, 1999); however, there has been little movement in this direction. Even when practitioner publications are recognized as valuable, they are frequently given relatively little weight. For example, Louisiana State University's journal rankings for tenure and promotion includes the footnote, "Although premier professional publications can be a desirable part of one's publications portfolio because of their broad circulation and the visibility they have with the practitioner community, for promotion and tenure purposes, scholarly academic publications in the "Premier", "A" and "B" categories (especially in the researcher's major field) should make up the majority of the portfolio." (http://www.isworld.org/csaunders/lsu.htm). No practitioner outlets are listed on University of Texas at San Antonio (http://www.isworld.org/csaunders/utsa.htm). However, the University of Oklahoma has included *MISQ Executive* and *Sloan Management Review* on the target list of outlets (http://www.isworld.org/csaunders/ou.htm) and Mississippi State University includes both *Harvard Business Review* and *Sloan Management Review* on the A-journal list (http://www.isworld.org/csaunders/msu.htm). Although Web-based journals provide one way of reaching out to practitioners, purely Web-based journals were not included on any of these lists.

One way in which the relevance of IS research might be enhanced is by improving its currency. To the extent that the Web has facilitated the manuscript submission and review process, some improvement in relevance has likely been realized. However, there is no data to indicate that such improvement has been significant.

Micro Level: The Individual IS Researcher

While there is little hope of major movement toward relevance at the macro level, the picture is much more positive at the micro level. As the prior discussion has shown, individual researchers

have realistic options for increasing the relevance of their work by developing the practitioner relationship, viewing research topics, methods and results from the practitioner perspective, and considering multiple outlets, both academic and practitioner, for publication.

There are a variety of steps that the typical IS researcher can take to initiate meaningful relationships with practitioners. (1) A researcher can attend practitioner conferences in the researcher's area of interest (Benbasat & Zmud, 1999; Lang, 2003). For example, if the researcher's focus area is project management, they might attend a Project Management Institute Global Congress or a Cutter Consortium Summit. (2) A researcher might organize a roundtable discussion with local industry technology leaders to identify and isolate key research areas (Benbasat & Zmud, 1999; Watson & Huber, 2000). A successful format might include partnering with the school or college's alumni association, or appropriate student organizations. (3) A researcher might include "live" projects in his or her coursework that relate directly to his or her research interests (Watson & Huber, 2000). Many universities have external or corporate outreach programs that can assist the researcher in finding an appropriate project and organization. (4) A researcher might facilitate company-sponsored courses. A faculty member at the University of Georgia organizes a course for a coalition of companies to teach legacy programming (Watson & Huber, 2000). (5) An IS researcher can adopt action research methodologies such as Soft Systems Methodology (Checkland, 1999). According to Baskerville (1999), "… the adoption of action research methodologies produces highly relevant research results because it is grounded in practical action, aimed at solving an immediate problem situation while carefully informing theory." Action research is guided by common goals of both researcher and organization where gained knowledge can be immediately applied to the social-organizational problem.

Once a researcher has established a relationship with external practitioners, then the work of building a long term, and hopefully more personal, relationship begins (Benbasat & Zmud, 1999). To facilitate a more in-depth relationship, a researcher might consider using sabbaticals, internships within corporations, and consulting (Khazanchi & Munkvold, 2001; Lang, 2003; Watson & Huber, 2000). Although funds are limited and such grants are highly competitive, the researcher also might consider applying for funding through either a professional organization or a major corporation (Robey & Markus, 1999). The Society for Information Management's Advanced Practices Council supports applied research in areas that have practical application to the successful management and use of information technology to achieve business objectives (http://www.simnet.org/Content/NavigationMenu/Advanced_Practices_Council/Overview10/Overview.htm). Microsoft's External Research and Programs provides grants for pervasive computing, digital inclusion, technical solutions and computational sciences (http://www.microsoft.com/education/university_relations.mspx).

Increased relationships with the active business IT community will not completely resolve the problem of insuring relevant IS research. For research to become more relevant, informing must be a two-way street. Just as practitioners must learn from researchers, researchers must also be willing to seek practitioner perspectives on research topics and methods. One way to do this is to regularly read what the business community reads about IT (Senn, 1998; Davenport & Markus, 1999). Regularly scanning sites such as http://www.CIO.com, http://www.informationweek.com, and http://www.computerworld.com can provide current and sustainable topics of interest. Another way for the researcher to focus on relevant business issues involves forming a university-based center or institute, perhaps seeking corporate sponsorship (Robey & Markus, 1998; Senn, 1999). Institutes such as FedEx Institute of Technology at the University of Memphis (http://fedex.memphis.edu/), Commercial Human Computer Interface Research Laboratories at the University of Maryland (http://www.otal.umd.edu/guse/university.html#sect4), Vanderbilt University's Sloan Center for Internet Retailing (http://elab.vanderbilt.edu/) help to bring researchers closer to business interests at the same time as they help disseminate research to the

practitioner community. Since practitioners do not actively follow research journals (Benbasat & Zmud, 1999), one way to better inform practitioners of results without forgoing the prestige of academic journals is to submit each research result separately for two audiences: academic and practitioner, with a style appropriate for each distinct reader (Benbasat & Zmud, 1999; Robey & Markus, 1998; Westfall, 1999). When presenting research to practitioners, models must be practical; findings must be implementable and pragmatic (Benbasat & Zmud, 1999; Senn, 1998).

Figure 2 details specific actions that individual researchers can take to make their research more relevant. Some of these actions will increase the researchers' knowledge and appreciation of practitioner problems. Such actions involve a flow of information primarily from practitioners to researchers. Other actions involve an opposite information flow, from researchers to practitioners, as researchers make their research more available and more user-friendly for practitioners. Ultimately, if IS research is to be relevant as a whole, then individual researchers must take the initiative in first establishing relationships with practitioners and then building upon those relationships to become ever closer to the practitioner community.

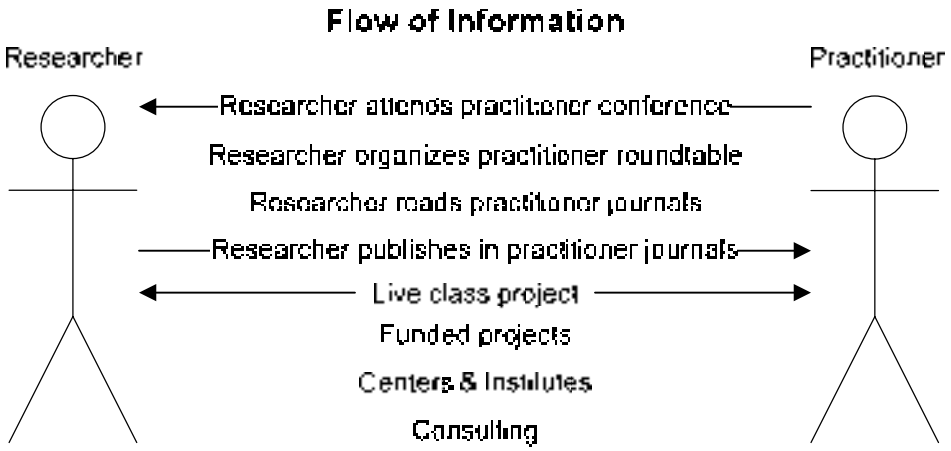

Figure 2: Flow of Information

Conclusion

Though the issue of IS research relevance has faded from top-tier journals, the problem has not been resolved. This article provides the first comprehensive digest of major papers relating to IS research rigor and relevance. It also recognizes that the problem of relevance is not one that is likely to be solved at the global level, no matter how distinguished the discussants or how glorious the plans. Rather, the relevance of IS research ultimately will be determined by each individual researcher. To facilitate individual researchers' progress in moving toward ever greater relevance, this research provides a concise plan of specific actions that are within the control of each individual IS researcher. In the end, the relevance of each research piece will be determined largely by the extent of its researchers' willingness to seek out practitioner viewpoints, formulate research problems that are meaningful to practitioners and implementable, and promote their own research in formats and terms that the IS practitioner community can recognize and appreciate. Our fate, it seems, is in our own hands.

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Biographies

Theresa Steinbach began the Ph.D. program at DePaul CTI in January 2000, having received her M.S. in Information Systems in June 1999. She also holds an M.B.A. in Quantitative Economics and a B.A. in Mathematics from DePaul University. Prior to teaching full-time for DePaul CTI, Terry owned her own consulting firm that specialized in maximizing technology for business growth and profits. Her client base included representatives from the banking and nursing home industries, accounting firms, mortgage bankers, park districts and other municipal entities, as well as small and mid-size retail businesses.

Linda V. Knight is Associate Dean of DePaul University's School of Computer Science, Telecommunications, and Information Systems. She is also Director of DePaul CTI's Center for the Strategic Application of Emerging Technologies (SAET), a CTI research group that explores leveraging new and emerging technology within organizations. She teaches and conducts research in the area of Information Technology strategy, development, and implementation. An Associate Editor of the Information Resources Management Journal, she also is Editor-in-Chief of the Journal of IT Education, as well as Past President and Fellow of the Society for the Advancement of Information Systems, an affiliate of MBAA International. She is a member of the Editorial Advisory Board of the Journal of Cases on Information Technology (JCIT), and is also a member of the Information Resources Management Association Executive Council. She serves on MBAA International's Executive Board. An entrepreneur and IT consultant, she has held industry positions in IT management and quality assurance management. In addition to a Ph.D. in computer science from DePaul CTI, she holds a B.A. in mathematics and an MBA, both from Dominican University.