

## **Panel: Research Collaboration between IS Research and Industry: Can it work?**

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### **Abstract**

*This panel discusses the panellists' experiences of collaborative research with industry; benefits and potential barriers involved in conducting IS research in collaboration with industry, and the potential solutions to these barriers; ways of getting organisations interested in participating in collaborative research projects; and some working principles for conducting collaborative research in a way which is beneficial for both IS research and industry.*

### **Keywords**

## PANEL OVERVIEW

This session will explore some of the benefits and pitfalls involved in conducting IS research in collaboration with industry, and suggest how it might be conducted in a way which is mutually beneficial for both parties.

## THE IDEAL WORLD: WHAT SHOULD HAPPEN

In an applied discipline, research should be relevant to the needs of practice and research outputs should ultimately lead to improved practices. The way this *should* happen is illustrated in Figure 1.

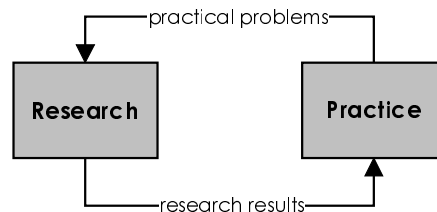


Figure 1: What Should Happen

There are two key flows of knowledge that need to occur for this to work:

- From practice to research: research activity should be driven by practical problems. This ensures that research is *relevant* to the needs of practice.
- From research to practice: research results should be disseminated and applied in practice. This ensures that research leads to improved practices (*impact*)<sup>§</sup>.

## REALITY: WHAT ACTUALLY HAPPENS

Currently, there is a major "disconnect" between research and practice in the Information Systems field (Figure 2). IS researchers and IS practitioners form independent communities, with little knowledge transfer between them. Each group has their own conferences, their own journals with little cross-membership between the two groups. Both the generation of ideas and the dissemination and use of those ideas occurs largely within each community.

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<sup>§</sup> This issue is addressed by the Evidence Based Information Systems panel (also part of this conference).

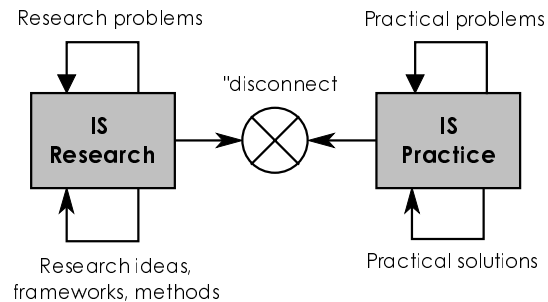


Figure 2: What Actually Happens

As a result:

- IS Research is not driven by practical problems but “demand” from publication outlets (academic journals and conferences). Most IS research publications are not read by practitioners, so demand tends *not* to be driven by the needs of practice but interests of other researchers.
- The results of academic research are often theoretical and have no immediate practical application, so is of little interest to practitioners.
- When practitioners have a problem to solve, they are much more likely to go to consultancy companies or vendors than to IS researchers.

## BENEFITS OF COLLABORATIVE RESEARCH

One of the potential solutions to this “disconnect” that exists between IS research and practice is the concept of collaborative research between universities and industry. Research programmes such as the SPIRT (Strategic Partnerships with Industry in Research and Training) scheme recently introduced by the Australian government are designed to encourage such collaboration and improve the practical relevance of research.

Such collaboration has potential benefits for both researchers and practitioners:

- For practitioners, it enables the development of new ideas and technologies at a relatively low cost. It also enables them to get independent and unbiased answers to particular questions (as opposed to advice from consultants and vendors).
- For researchers, it has the potential to improve both the practical relevance of research and increases the likelihood that the results will be used in practice (impact). It also provides an alternative source of funding for research (as opposed to dwindling government research funding).

## BARRIERS TO COLLABORATIVE RESEARCH

Unfortunately, there are some major barriers to effective research between universities and industry in the IS field:

- There is a tension between the objectives of IS researchers and commercial organisations. Researchers are primarily interested in the development of new knowledge, while organisations are interested in practical outcomes (e.g. producing a saleable product).
- The timeframes required by industry to see some practical results are considerably less than those required by most funding schemes (usually about 4 years for SPIRT grants) and the time required to produce valid research results. Organisations are of-

ten happier to rely on anecdotal evidence or expert opinion provided by consultants than to wait for a more definitive answer which could be provided by research.

- Commercial organisations are generally not interested in funding research which has theoretical outcomes but no immediate practical application.
- The IT industry tends to be driven by fads and fashions—for example, the current one is e-commerce. Chasing industry research funding may lead to a kind of “fad surfing” in IS research, which will come at the expense of substance and establishing a cumulative tradition.

There is a clear danger that if we move to a situation where research is primarily driven by the needs of practice, research may become narrowly focused and opportunistic, and fail to address some long term theoretical issues which are fundamental in any discipline.

## PANEL OBJECTIVES

The members of the panel will:

- Describe their own experiences of collaborative research with industry (both positive and negative)
- Discuss the benefits of collaborative research with industry
- Discuss potential barriers to successful collaborative research with industry and how they might be overcome
- Suggest ways of getting organisations interested in participating in collaborative research projects
- Suggest some working principles for conducting collaborative research in a way which is beneficial for both parties

## THE PANEL

**Daniel Moody:** Daniel Moody holds a joint position as Research Fellow in the Department of Information Systems at the University of Melbourne and Senior Consultant with Simsion Bowles & Associates, an Australian-based information systems consultancy. He is the President of the Australian Data Management Association (DAMA) and Vice-President on the DAMA International Board. Daniel has held senior IT positions in some of Australia's largest commercial organisations, and has consulted at a strategic level to a wide range of organisations both in Australia and overseas. His research interests include data modelling, data management, information resource management, data warehousing and knowledge management. He has published over 40 journal and conference papers in the IS field, and has chaired several national and international conferences.

**A/Prof. Shirley Gregor:** Shirley Gregor is Head of the School of Computing and Information systems at Central Queensland University, Rockhampton, Australia. Dr Gregor spent a number of years in the computing industry in Australia and the United Kingdom before beginning an academic career. Her current research interests include electronic commerce and the theory of interorganisational systems, explanations from intelligent systems, and information systems development. Dr Gregor heads the Electronic Commerce Research Group at Central Queensland University. She has led several large projects in e-commerce in collaboration with the beef industry and agribusiness.

**Dr. Robert Johnston:** Robert (Johnno) Johnston is a Senior Lecturer in the Department of Information at the University of Melbourne and Leader of the Electronic Commerce Research

Group. Prior to joining the University of Melbourne in 2000, Dr. Johnston was a Senior Lecturer in the School of Business Systems at Monash University. Before that, he spent 13 years in industry as a systems analyst / project leader, initially as an employee and later as a freelance consultant. In that period he designed and implemented about 25 large systems for medium sized manufacturing firms mainly in support of the MRP II concept. His research areas include the use of electronic commerce in supply chain reform, the trade-off between efficiency and flexibility operations management, Just-In-Time, and the alternatives to plan-based operations management. His research group has had many practical collaborations with industry and he has published over 40 papers in the last 5 years in conferences and journals.

**Prof. Marcus O'Connor:** Marcus O'Connor is a Professor of Information Systems at the University of New South Wales in Sydney, Australia. He is primarily interested in the role of judgment in forecasting and decision making. He is also interested in the way that people use information that they acquire in the forecasting and decision making processes. He has published in numerous journals including Management Science, International Journal of Forecasting, and Organizational Behavior & Human Decision Processes. He is an associate editor of the International Journal of Forecasting.

**Prof. Jon Patrick:** Jon Patrick holds the foundation Sybase Chair of Information Systems at the University of Sydney. He held a similar position at Massey University before coming to Sydney. He has had a diverse career holding 5 degrees covering Land Surveying, Archaeology, Computer Science and Psychology and he is a practising psychotherapist with registration in Victoria. His long term interests have been in developing natural language processing systems for a variety of applications, originally to record the activities of footballers and subsequently many sports like cricket, rugby, waterpolo and surfing. More recent research has involved a comprehensive system for analysing the methods of group psychotherapy and a non-specific highly generic system incorporating digital video.

**Prof. Mike Vitale:** Michael Vitale is a Professor in the Centre for Management of IT at the Melbourne Business School. He was formerly the Foundation Professor of Information Systems and Head of the Information Systems Department at the University of Melbourne. Prior to coming to Australia, he was a Fellow at the Ernst & Young Center for Business Innovation in Boston, USA. Dr Vitale was also an Associate Professor of Business Administration at Harvard Business School, where he wrote over 50 case studies of IT use in firms including American Hospital Supply and Frontier Airlines. His industry experience includes four years as Vice President of Technology and Corporate Services at the Prudential Insurance Company of America.

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