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## Future of Master's Level Education in Information Systems Panel Presentation

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# Future of Master's Level Education in Information Systems

## Panel Presentation

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### ABSTRACT

Panels concerning Information System (IS) education issues and curriculum recommendations are part of a rich tradition and they have been well attended at past AIS conferences. This panel hopes to continue build on this foundation by focusing on master's level programs and curricula in IS. Specifically, this panel will: 1) give the members of the audience an opportunity to review state-of-the-art practices in and innovative ideas related to master's level education in IS, 2) start to engage the IS community in the process of revising the graduate level model curriculum and 3) present a number of alternative approaches to master's level graduate programs in IS and to stimulate a discussion that will encourage the audience to consider different options for their programs.

### Keywords

Graduate model curriculum, IS education, computing education, curriculum development

### INTRODUCTION

This panel will focus on the future of master's level programs and curriculum recommendations in Information Systems, building on the foundation of the recent ACM/AIS curricula for MS degree programs in IS (MSIS 2000 and MSIS 2006; Gorgone et al. 2000; Gorgone et al. 2006). The panel will discuss the role and the importance of MS degree programs for the IS discipline, the content and structure that define these programs, and the ways in which these programs serve various stakeholders (including students, faculty, employers, universities). Despite the architectural changes introduced in MSIS 2006, many of the core elements of the IS model curriculum are still surprisingly similar to the core IS content of the first ACM recommendations presented in Nunamaker et al. (1981). This partially bears testimony to the strength of those early recommendations, but it also is a call to review the contextual changes, student demand, and employer requirements affecting master's level programs in IS and to consider a more comprehensive restructuring of our collective thinking regarding these programs.

The recent revision of the undergraduate model curriculum in IS (IS 2010; Topi et al. 2010) provides a comprehensive review of the environmental changes for IS education and a broad overview of high-level IS capabilities as a foundation for the undergraduate curriculum. In addition, the development of IS 2010 took first steps in using Web 2.0 technologies in curriculum development. Specifically, a web-based wiki tool was employed to encourage community wide participation in the curriculum revision process. The panel will briefly explore the lessons learned from the undergraduate curriculum process and review their applicability to the graduate context.

The panel will be targeted to a broad based audience consisting of IS faculty (including chairs of IS departments and MS program directors) and PhD students who are either currently involved in master's level education in IS as teachers or administrators or considering a new master's program. In addition, the panel will be of interest to IS education scholars and administrators who are evaluating IS programs in the broader institutional context.

## PANEL OBJECTIVE

The purpose of the panel is threefold: 1) to give the members of the audience an opportunity to review state-of-the-art practices in and innovative ideas related to master's level education in IS, 2) to start to engage the IS community in the process of revising the graduate level model curriculum and 3) to present a number of alternative approaches to master's level graduate programs in IS and to stimulate a discussion that will encourage the audience to consider different options for their own programs.

Disseminating best practices and reflecting on the role of master's level degree programs is very important for the conference audience and the discipline as a whole. Master's level programs are the context in which a discipline can most effectively demonstrate to its external stakeholders the true value-added it can offer, and it is essential that the IS discipline is engaged in a continuous process of understanding and improving its master's level offerings. The findings can also be very useful for individual faculty members and departments that are working to identify the best approach for their own context.

## PANEL FORMAT

The panel presentation will be consistent of four distinct segments. First, the moderator Heikki Topi will introduce the panelists and outline the agenda for the panel presentation (5 minutes). Second, select panelists will present a review of the current state-of-the-art practices and innovative ideas related to master's level education in IS. (20 minutes) Next, the panelists will address questions regarding Master's education in IS (30 minutes), each panelist focusing on the subset of the questions. The questions may include the following:

1. How Master's degrees in should IS be positioned compared to other Master's degrees in computing and in business?
2. What are the core capabilities a Master's degree in IS should provide?
3. What are industry expectations regarding the graduates of Master's degrees in Information Systems?
4. What are the key changes in the external environment affecting our thinking regarding the Master's degrees since the MSIS 2006 development process?
5. How could we work together with key industry players in developing the new master's curriculum / curricula?
6. Overall, what type of a process should we follow in revising MSIS 2006?
7. What can we learn from the IS 2010 process?
8. What is the relationship between the master's level curricula in IS and our ability to attract students to these programs?

As typical with panel presentation, the moderator will open the floor up to the audience for questions to the panel and general comments regarding IS Master educational issues (about 35 minutes).

## BIOS OF THE PANELISTS

**Brian Donnellan** is holds the Chair of Information Systems Innovation at the National University of Ireland, Maynooth ([www.nuim.ie](http://www.nuim.ie)). He is also Co-Director of the Innovation Value Institute ([www.ivi.ie](http://www.ivi.ie)). Prior to joining NUIM he was a faculty member in the Cairnes Postgraduate School of Business and Public Policy in the National University of Ireland, Galway (NUIG). His teaching and research interests lie primarily in the area of innovation systems, which encompasses innovation, new product development, sustainable ICT and information technology services management. Prior to joining NUI Galway faculty in 2004 he spent 17 years working in industry. While in industry he was responsible for the provision of information systems to support New Product Development and the implementation of Knowledge Management and Innovation systems in Analog Devices Inc., a Boston-based semiconductor design and manufacturing company. He will bring to the panel a strong cross-Atlantic industry perspective and in-depth understanding of the IT Capability Maturity Framework, a model that is being developed as a result of intensive industry/academia collaboration and that is showing interesting promise also as a foundation for curriculum work.

**Bill Schiano** is an Associate Professor of Computer Information Systems at Bentley University. His research and teaching interests include enterprise and information systems architecture, IS/IT strategy and management, and IS project management. He has extensive experience in consulting and leading executive education courses in areas related to IS management. He is currently serving as the Director of Bentley's MSIT program, which is the successor of one of the earliest master's degree programs in IS (Bentley's MSCIS was established in late 1970s). He will bring to the panel his strong

expertise as MS program director and master's level curriculum developer with leadership experience from three major revision processes of the MSCIS/MSIT program at Bentley.

**Heikki Topi** is Associate Dean of Business for Graduate and Executive Programs and Professor of Computer Information Systems at Bentley University. His teaching interests cover a range of topics including advanced systems analysis and design, systems modeling, and data management. His current research focuses on human factors and usability issues in enterprise systems, information search and data management and the effects of time availability on human-computer interaction. His research has been published in journals such as *European Journal of Information Systems*, *JASIST*, *Information Processing & Management*, *International Journal of Human-Computer Studies*, *Journal of Database Management*, *Small Group Research*, and others. He has been actively involved in national computing curriculum development and evaluation efforts (including IS 2002, CC2005 Overview Report, and as co-chair of the IS 2010 curriculum revision project). He is a member of the ACM Education Board and the Board of CSAB (formerly, the Computing Sciences Accreditation Board). He will bring to the panel his in-depth expertise in model curriculum development, broad understanding of computing education, and experience in academic administration.

**Joseph S. Valacich** is The George and Carolyn Hubman Distinguished Professor of MIS at Washington State University. His teaching interests include systems analysis and design, collaborative computing, project management, and the management of information systems. He co-chaired the task force that designed the IS 2010 Undergraduate Model Curriculum and served on the task forces designing IS '97 and 2002 as well as MSIS 2000 and 2006: The Master of Science in Information Systems Model Curriculum. He also served on the Executive Committee, funded by NSF, to define the IS Program Accreditation Standards and on the Board of Directors for CSAB (formerly, the Computing Sciences Accreditation Board), representing the Association for Information Systems (AIS). He was the general conference co-chair for the 2003 International Conference on Information Systems (ICIS) in Seattle and was the vice-chair of ICIS 1999 in Charlotte, NC. His primary research interests include technology-mediated collaboration, human-computer interaction, mobile and emerging technologies, e-business, and distance education. His main contributions to the panel will be based on his long-term and in-depth expertise as one of the key leaders in IS curriculum development and his strong links to some of the top companies in the IT industry.

**Ramesh Venkataraman** is an Associate Professor of Information Systems and Whirlpool Faculty Fellow at Indiana University's Kelley School of Business. He is also Chairman of the MS in Information Systems (MSIS) program. As Chairman of the MSIS program, he has successfully grown the program from 14 students in 2002 to more than 84 entering students in fall 2008. He has published over 25 papers in leading journals, such as *Information Systems Research*, *MIS Quarterly*, *ACM Transactions on Information Systems*, *Communications of the ACM*, *Journal of Management Information Systems*, *Information Systems* and *IEEE Expert*, in addition to edited books and publications in conference proceedings. Ramesh is also the co-author on one of the leading database books on the market, *Modern Database Management 10e*, along with Jeff Hoffer and Heikki Topi. In addition to his university teaching and research, Ramesh is actively involved in several service activities. He is an active participant in both the ISACA and the IT Service Management Forum (itSMF) communities, which forms one of the basis of expertise that he will be contributing to the panel. This will be in addition to his success as an MSIS program chair and his innovative thinking related to the Master's programs in IS.

**Ryan Wright** is an Assistant Professor at University of San Francisco. He holds a Ph.D. from Washington State University in Management Information Systems. Ryan's research interests take a behavioral approach to understanding how current technologies can be used to enable secure and efficient e-business transactions. This includes e-commerce motivations and e-commerce security. Ryan also is involved in information systems education efforts including serving on the task force designing IS 2010 Undergraduate Model Curriculum. His work is published in the *Journal of MIS*, *Communications of the AIS*, *Group Decision and Negotiation* and other peer-reviewed journals. Ryan has also presented his research at leading conferences such as the ICIS, HICSS and AMCIS. Also, Ryan has won university-wide and college-wide awards in recognition of his classroom excellence. In addition to academic achievements, Ryan's professional experience includes tenure as CTO of a successful startup, time in management at Amoco Oil (now BP Amoco), consulting projects for the US Department of Commerce and expert testimony for the Attorney General's Office of Washington State. His core contributions to the panel are based on his rich industry expertise from a variety of companies and his very significant role in the IS 2010 development process.

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