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SIGED: IAIM Conference

12-15-2011

PANEL DISCUSSION: Providing Distinctive Value Through Master's Level Programs In Information Systems.

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Recommended Citation

Topi, Heikki; Conboy, Kieran; Donnellan, Brian; and Ramesh, V., "PANEL DISCUSSION: Providing Distinctive Value Through Master's Level Programs In Information Systems." (2011). *Proceedings of the 2011 AIS SIGED: IAIM International Conference on Information Systems Education and Research*. 42.
<https://aisel.aisnet.org/siged2011/42>

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PROVIDING DISTINCTIVE VALUE THROUGH MASTER'S LEVEL PROGRAMS IN INFORMATION SYSTEMS

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Abstract:

This panel discussion will build on the conversation regarding master's level curricula in Information Systems that started at AMCIS 2010, and it contributes to the review and possible revision of MSIS 2006. It is based on the assumption that master's programs in Information Systems offer highly valuable opportunities for IS departments globally and provide significant value for students, employers, and societies alike; therefore, the discipline has an excellent justification to review master's level curriculum guidance frequently and rediscover and redefine the distinctive strengths of master's programs in Information Systems. The panelists will provide their perspectives on the curriculum review in general and three questions in specific: master's level outcome expectations, specific characteristics of master's programs in each panelist's geographic area, and the distinctive value that IS programs provide compared to other computing programs at the master's level.

Keywords: master's curriculum in IS, curriculum recommendations, IS education

I. INTRODUCTION

A panel presentation at AMCIS 2010 started a conversation within the IS community regarding the future of the master's level model curricula [Topi et al., 2010]. The ideas presented in the panel discussion were developed further in a panel report published in CAIS in Spring 2011 [Topi et al., 2011]. The purpose of this proposed panel is to follow up these earlier contributions to the conversation with a discussion that will further develop the core ideas, expand the geographic scope of the process, strengthen the understanding of the distinctive value of master's programs in IS, and update the community of the status of the process.

II. DESCRIPTION OF THE TOPIC

The master's level model curricula MSIS 2000 [Gorgone et al, 2000] and MSIS 2006 [Gorgone et al., 2006] are the only graduate curricula in the ACM/AIS/IEEE-CS developed series of computing

curriculum reports (others include undergraduate reports CE 2004, CS 2008, IS 2010, IT 2008, and SE 2004). Recently, a master's level curriculum in Software Engineering GSwE 2009 developed by a U.S. Department of Defense funded task force was adopted by ACM and IEEE-CS. Anecdotally, it is known that the master's curricula in IS have been useful for the schools as supporting material in their own curriculum development processes. IS 2006 was developed in a process that took place in 2004 and 2005, and, therefore, external changes alone create a sufficient reason to review the curriculum. In addition, recent discussions regarding the master's curriculum (such as the AMCIS 2010 panel reported at [Topi et al, 2000] and [Topi et al. 2011]) have suggested that the Information Systems community could benefit from a different positioning of the master's programs, providing further reasons to initiate a review.

This proposed panel will build on the foundation of the AMCIS 2010 panel and take that discussion further, expanding its scope geographically and including additional ideas regarding the new direction that the revision should take. The 2010 panel included three examples of successful programs (MSIS at Indiana University, MSIS at University of San Francisco, and European MSc in Business Informatics at Dublin City University), discussions related to two reference curriculum projects related to MSIS 2006 (Graduate Software Engineering Curriculum 2009 or GSwE 2009 and Master's Degree in Business Informatics in Europe), suggested a contribution to the master's level curriculum development by the IT-CMF framework, and reflections on the state of the master's programs in IS by a highly experienced faculty member who had participated in MSIS 2000 and 2006 and led a master's program in IS earlier in his career. The panel concluded that

- there are exciting opportunities in master's level education in IS as long as the curricula are well designed and industry partners are actively involved in the process,
- master's programs in IS have the potential to be very well positioned to prepare students for successful long-term careers,
- the competitive landscape is continuously changing, and it is essential that we as a discipline understand and communicate clearly what our primary strengths and the value added that we provide are compared to other types of programs (such as those at iSchools and those that follow the GSwE 2009 curriculum)
- IS should consider reaching beyond business as its domain (in the same way computer science is doing with its computing + X initiatives and iSchools are contributing with various types of programs in Informatics).

This proposed panel presentation will directly build on these outcomes of the earlier panel, first reviewing the earlier conclusions and then asking the panelists and the audience members to comment on them. In addition, this panel will focus on three more focused questions: 1) the specific outcome expectations of master's degree graduates and the ways these differ from the learning outcomes of undergraduate programs; 2) the differences between the IS master's degree concepts in different areas of the world and the common core that emerges from the comparison, and 3) further exploration of the specific distinctive value that master's programs in Information Systems can add compared to other master's programs in computing.

Increasingly many activities of businesses, governments, and non-profit organizations are driven by and dependent on intelligent use of information and information systems. Organizations of all types and sizes are in need of personnel who have a strong understanding of the opportunities that information technology creates. Those with a master's degree in Information Systems are particularly well positioned to lead information-intensive organizations and initiatives. It is our responsibility as a discipline to provide best possible guidance regarding the education that master's level students in our programs receive. The proposed panel will in a significant way contribute to the process of updating the curriculum guidance that is available for master's programs in IS.

III. STRUCTURE OF THE SESSION

The panel will start with a brief overview of the findings of the AMCIS 2010 panel on the master's curricula in IS, followed by a discussion on these findings first among both the panelists and the audience members. This introduction sets the stage for the second part of the panel in which all panelists are asked to give a brief (5-7 minute) presentation on the three focused questions specified in Section II above (master's level outcome expectations, specific characteristics of master's programs in each panelist's geographic area, and the distinctive value that IS programs provide compared to other computing programs at the master's level), each followed by a very brief (one minute) comment by another panelist. After the participant presentations, the audience members will have an opportunity to ask the participants questions and make comments in a moderated conversation. At the end, each of the panelists will have an opportunity to make concluding remarks, and the moderator will provide a summary.

IV. PANEL PARTICIPANTS

Heikki Topi is 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 is the co-author of one of the leading database management textbooks, *Modern Database Management*, with Jeff Hoffer and V. Ramesh. 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.

Kieran Conboy is an associate professor at the University of New South Wales. His research focuses on agile systems development approaches as well as agility across other disciplines. Kieran is currently involved in numerous national and international projects in this area, and has worked with many companies on their agile initiatives including Intel, Microsoft, Accenture, HP, and Fidelity Investments. Kieran has chaired related conferences including the European Conference in Information Systems (Galway 2008) the XP and Agile Development Conference (Limerick 2008) and also has chairing roles at XP2009 and XP2010. Some of his research has been published in various leading journals and conferences such as *Information Systems Research*, *the European Journal of Information Systems*, *the International Conference in Information Systems (ICIS)*, *the European Conference in Information Systems (ECIS)*, *IFIP 8.6* and the *XP200n* conference series. He is also associate editor of the *European Journal of Information Systems*. Prior to joining academia, Kieran was a management consultant with Accenture, where he worked on a variety of projects across Europe and the US. Kieran can be reached at k.conboy@unsw.edu.au.

Brian Donnellan holds the Chair of Information Systems Innovation at the National University of Ireland, Maynooth (www.nuim.ie). He is also Co-Director of the Innovation Value Institute (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.

V. Ramesh is an Associate Professor of Information Systems and Whirlpool Faculty Fellow at Indiana University's Kelley School of Business. He is also Chair of the MS in Information Systems (MSIS) program. As Chair of the MSIS program, he has successfully grown the program from 14 students in 2002 to more than 100 entering students in fall 2010. 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.

V. REFERENCES

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