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### MSIS 2016: a comprehensive update of graduate level curriculum recommendation in Information Systems

Heikki Topi  
*Bentley University*

Susan A. Brown  
*University of Arizona*

Joao Alvaro Carvalho  
*Universidade do Minho*

Brian Donnellan  
*Maynooth University*

Helena Karsten  
*Abo Akademi University*

*See next page for additional authors*

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## **MSIS 2016: a comprehensive update of graduate level curriculum recommendation in Information Systems**

### **Abstract**

The process to revise MSIS 2006, the master's level curriculum recommendation for Information Systems, is getting close to completion. In spring and summer 2016, the joint AIS/ACM task force will continue the process of soliciting comments from various stakeholders, including the academic IS community and employers. The purpose of the AMCIS panel is to give the audience an update of the status of the MSIS 2016 revision process and provide the task force with feedback regarding the draft document. A significant portion of the session will be reserved for conversation. The task force is proposing significant changes to the curriculum content and structure, including the new curriculum's focus on specifying desired graduate competencies instead of articulating courses or knowledge areas/units. Some of the changes are a reflection of the changes in the process used to revise the curriculum: MSIS 2016 will be a result of a truly global process.

### **Keywords**

recommendation, systems, update, information, comprehensive, 2016, curriculum, level, graduate, msis

### **Disciplines**

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### **Authors**

Heikki Topi, Susan A. Brown, Joao Alvaro Carvalho, Brian Donnellan, Helena Karsten, Jun Shen, Bernard C. Y Tan, and Mark F. Thouin

# MSIS 2016: A Comprehensive Update of Graduate Level Curriculum Recommendation in IS

## Panel

**Heikki Topi**  
Bentley University  
htopi@bentley.edu

**Sue Brown**  
University of Arizona  
suebrown@email.arizona.edu

**Brian Donnellan**  
Maynooth University  
brian.donnellan@nuim.ie

**Helena Karsten**  
Åbo Akademi University  
ekarsten@abo.fi

**Jun Shen**  
University of Wollongong  
jshen@uow.edu.au

**Bernard Tan**  
National University of Singapore  
btan@comp.nus.edu.sg

**Mark Thouin**  
University of Texas at Dallas  
mxt083000@utdallas.edu

## ABSTRACT

The process to revise MSIS 2006, the master's level curriculum recommendation for Information Systems, is getting close to completion. In spring and summer 2016, the joint AIS/ACM task force will continue the process of soliciting comments from various stakeholders, including the academic IS community and employers. The purpose of the AMCIS panel is to give the audience an update of the status of the MSIS 2016 revision process and provide the task force with feedback regarding the draft document. A significant portion of the session will be reserved for conversation. The task force is proposing significant changes to the curriculum content and structure, including the new curriculum's focus on specifying desired graduate competencies instead of articulating courses or knowledge areas/units. Some of the changes are a reflection of the changes in the process used to revise the curriculum: MSIS 2016 is a result of a truly global process.

## Keywords

IS curricula, IS education, MSIS, curriculum recommendations.

## PANEL OVERVIEW AND OBJECTIVE

A joint task force established by AIS and ACM has been working since January 2015 to review and revise the master's level curriculum recommendation for Information Systems, MSIS 2006 (Gorgone, Gray, Stohr, Valacich, and Wigand, 2006). This ongoing process is a culmination point for a lengthy set of steps that consisted of a broad conversation within the IS community, including panel presentations, conference papers, journal articles, and a preliminary review task force that established the need for the revision (see, e.g., Topi, Helfert, Ramesh, and Wigand, 2011 and Topi, Conboy, Donnellan, Ramesh, Van Toorn, and Wright, 2014). The task force has emphasized the importance of constant communication with the broad IS community as part of its work, and it has provided the community with frequent updates in the form of panels, other conference presentations, website ([www.msis2016.org](http://www.msis2016.org)), and messages on AISWorld.

At the time of writing, the task force is putting finishing touches into its second public deliverable, which will outline key elements of the new document in a draft form, focusing on architectural changes and a brand new articulation of the curriculum in the form of graduate competencies. The task force will collect feedback based on the draft in Spring 2016 and prepare the first complete form of the curriculum in May/June 2016. Based on the second round of feedback, the task force will revise the curriculum document in August/September 2016 for submission to the sponsoring organizations AIS and ACM in fall 2016 and, the task force hopes, final approval by ICIS 2016.

MSIS 2016 will be a comprehensive revision of MSIS 2006, including a major change to its architectural foundation. MSIS 2006 used courses as its foundational elements; MSIS 2016 will instead be based on competency areas and categories and individual graduate competencies. MSIS 2016 draws on the long-term work done around the world in defining competencies for IS professionals, including the European e-Competence Framework (e-CF) and the Skills Framework for the Information Age (SFIA) that originated from the UK but is now used around the world (although less in the U.S.). The task force has carefully considered the impact on recent technical and technology management themes (such as mobile computing, agile development, DevOps, cloud computing, virtualization, and globalization) and focused on separating those introducing true changes to required graduate competencies from those representing more transient changes. The proposed MSIS 2016 reconceptualizes systems analysis and design recognizing the impact of agile development methodologies and DevOps. It also emphasizes competencies related to ethics, impacts, and sustainability, business continuity and information assurance, and role of IS in enabling organizational innovation.

Many of the proposed changes are driven by the global nature of the revision process. The task force consists of expert members of AIS and ACM representing all AIS regions, three continents, and five countries. Even though we recognize that this does not make the group fully globally representative, it still is a significant change compared to the fully North American process that led to MSIS 2006. The task force is making a conscious effort to try and be present at all main regional IS conferences (ECIS, PACIS, and AMCIS) both in 2015 and 2016 to ensure that AIS members from all regions have an equal chance to have face-to-face contact with the task force and influence the curriculum development project that way. The proposed AMCIS panel is an important element of this feedback process.

The purpose of the proposed panel is to give AMCIS participants an opportunity to get a current update on the work of the MSIS task force, give direct feedback to a majority of the group, and, most importantly, have a conversation with its members with an opportunity to exchange questions and answers in both directions. The task force's goal is to publish the new MSIS document in 2016 and thus, AMCIS 2016 will be one of the final opportunities for the members of the IS community to communicate with the task force in person. The panelists are all members of the task force.

#### **PANEL LAYOUT AND DESIGN**

The panel will start with a brief overview of the key changes introduced to the master's level curriculum in MSIS 2016 by the moderator. After the introduction, the panel will continue with an in-depth discussion regarding the key elements of the proposed curriculum. For each element, the conversation will start with an introductory comment by one of the panelists followed by a set of questions by the moderator presented first to the panelists and then to the members of the audience. The panel session will end with an open conversation that will give all participants an opportunity to give feedback to the task force. The organizers will design the schedule so that at least half of the time will be allocated to questions and comments by the audience members.

#### **PANEL PARTICIPANTS**

##### **Sue Brown**

**Brian Donnellan** is Professor of Information Systems Innovation at Maynooth University ([www.nuim.ie](http://www.nuim.ie)), Co-Director of the Innovation Value Institute ([www.ivi.ie](http://www.ivi.ie)) and Co-Principal Investigator in the Irish Centre for Software Research ([www.lero.ie](http://www.lero.ie)). Prior to becoming an academic he spent 20 years working in the ICT industry. He is an expert evaluator and reviewer for the European Union and has been guest and associate editor of several leading IS journals.

**Eija (Helena) Karsten** is Associate Professor in Information Systems at the Åbo Akademi University in Finland. She has an MSc in Computer Science (from University of Helsinki) and a MA in Education (from University of Minnesota). She earned her PhD in 2000, supervised by Kalle Lyytinen and Matthew Jones. She has published in several top journals, including *MIS Quarterly*, *European Journal of Information Systems*, and *Information Systems Journal*. She is an associate editor of *The Information Society* and a member of the editorial board of *Information Technology and People*. During 2012-2014, she led a Finnish Ministry of Education funded project on joint curriculum development for doctoral studies involving Finland and China. In 2011, she was the Finnish representative in the team evaluating 32 information systems degree programs in 18 universities in Sweden. She is the co-chair of the ACM/AIS Task Force for revising the MSIS model curriculum.

**Jun Shen** is Associate Professor at the School of Computing and Information Technology at University of Wollongong in Wollongong, NSW of Australia, where he has been Head of Postgraduate Studies, and Chair of School Research Committee since 2014. He was awarded PhD in 2001 at Southeast University, China. He held positions at Swinburne University of Technology in Melbourne and University of South Australia in Adelaide before 2006. He is a senior member of three institutions: IEEE, ACM and ACS. He has published more than 100 papers in journals and conferences in CS/IT areas. His expertise includes Web services, Cloud computing and learning technologies including MOOC. He has been Editor, PC

Chair, Guest Editor, PC Member for numerous journals and conferences published by IEEE, ACM, Elsevier and Springer. Dr. Shen is also a current member of ACM/AIS Task Force on Curriculum MSIS 2016. Currently, Dr. Shen is area chair of IEEE SCC 2016, and associate editor of 7 journals.

**Bernard C.Y. Tan** is Vice Provost at the National University of Singapore (NUS), where he was formerly Head of the Department of Information Systems. He is Shaw Professor of Information Systems at NUS, where he has won university awards for research and for teaching. He was the 15<sup>th</sup> President of the *Association for Information Systems*. He is a Fellow of the *Association for Information Systems*. He has served on the editorial boards of *MIS Quarterly* (Senior Editor), *Journal of the AIS* (Senior Editor), *IEEE Transactions on Engineering Management* (Department Editor), *Management Science* (Associate Editor), *ACM Transactions on Management Information Systems* (Associate Editor), and *Journal of Management Information Systems* (Editorial Board Member). His research has been published in a variety of leading IS journals, including *ACM Transactions on Computer-Human Interaction*, *ACM Transactions on Information Systems*, *Communications of the ACM*, *European Journal of Information Systems*, *IEEE Transactions on Engineering Management Information Systems Research*, *Journal of Management Information Systems*, *Journal of the AIS*, *Management Science* and *MIS Quarterly*. His current research interests are social media, virtual communities, and Internet commerce.

**Mark F. Thoun** is Director of Graduate Information Systems Programs at the University of Texas at Dallas where he teaches graduate and undergraduate courses, promotes academic programs in information systems, and founded an information systems Industry Advisory Board (IAB). His research interests include the study of clinical and administrative value of information technology in healthcare settings. He holds a Ph.D. from Texas Tech University, an MBA from George Mason University and a BS in Mathematics from Virginia Tech. Prior to joining UT Dallas, he worked for 13 years in a variety of management, technical, and business development positions providing IT consulting services.

**Heikki Topi** is Professor of Computer Information Systems at Bentley University. His research interests include usability of large-scale enterprise systems, computing education, and organizing of systems development, and he is an active textbook author (including co-authorship of *Modern Database Management*, 12<sup>th</sup> edition). He has been actively involved in leadership roles in national and international computing curriculum development and evaluation efforts (including IS 2002, CC2005 Overview Report, and as co-chair of IS 2010 and the ongoing MSIS curriculum revision projects). He is a member of the ACM Education Board and the CAC/CSAB criterion committee. He is former member of CSAB Board of Directors (2009 – 2015) and TUN Executive Board (2013 – 2016). In 2015, he received the AIS Outstanding Contribution to IS Education Award.

#### **EQUIPMENT NEEDS**

The panel will need a standard computer projector.

#### **ACKNOWLEDGMENTS**

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#### **REFERENCES**

1. Gorgone, J. T., Gray, P., Stohr, E.A., Valacich, J.S., and Wigand, R.T. (2006) MSIS 2006: Model Curriculum and Guidelines for Graduate Degree Programs in Information Systems, *Communications of the AIS*, 17, 17, 1-58.
2. Topi, H., Helfert, M., Ramesh, V., and Wigand, R.T. (2011) Future of Master's Level Education in Information Systems, *Communications of the AIS*, 28, 27, 1-15.
3. Topi, H., Conboy, K., Donnellan, B., Ramesh, V., Van Toorn, C., and Wright, R. T. (2014) Moving Toward the Next Generation of Graduate Degree Programs in Information Systems, *Communications of the AIS*, 34, 35, 693-710.