- 4. Building support for a variety of national and regional curriculum models around the world
 - a. We need to design a curriculum structure that supports the required flexibility.
 - b. It is particularly important to consider the fact that in many parts of the world a master's degree includes a significant research component (such as a master's thesis).
- 5. Articulating the expected graduate competences at a more detailed level than in MSIS 2006. Some of the changes will be based on the following external phenomena:
 - a. Changes in computing technology and the environments to which it is applied
 - b. Changing balance between management and technology
 - c. Improved understanding of the general competence requirements for IS/IT professionals and the work on IT competences that has taken place around the world and particularly in Europe during the past few years.
- 6. Addressing specific concerns and opportunities related to the highly specialized MSISstyle degrees, such as those focused on analytics and security.
- 7. Articulating post-experience degree programs and analyzing the opportunities they offer separate from the primarily pre-experience MSIS degree.
- 8. Recognizing the need to address delivery channel issues, such as
 - a. The impact of on-line delivery for graduate degrees
 - b. MOOCs and other forms of ongoing just-in-time learning may require that particularly in post-experience degrees the components can be integrated into structures that can be certified as learning experiences.
 - c. What is the relationship between commercial and academic providers?

5 What is a Model Curriculum?

5.1 Continuous Improvement

Model curricula and the corresponding development process provide a number of useful and important roles to the IS community. A model curriculum development process fosters collaboration, requires careful introspection on what constitutes the core knowledge and capabilities of the discipline, and assists in understanding content and delivery innovations affecting the future direction of the discipline. In addition, the tangible artifacts associated with the completed model curriculum reflect a consensus of the IS community, provide a mechanism to communicate to relevant stakeholders the core capabilities obtained in graduate IS education, and serves as a resource for benchmarking, comparison and innovation of existing IS programs.

When viewed as a process of continuous improvement, measurement and periodic revision of the model curriculum form a feedback loop whereby the needs of the IS community are continually being met. Figure 1 illustrates the process of continuous improvement used for the development of the 2016 IS model curriculum.



Figure 1. Continuous Improvement Process for IS Graduate Curriculum Development

Each component of the continuous improvement process for graduate IS curriculum development serves an important and vital role whose details are discussed below.

5.2 Role and Importance of the Model Curriculum Development Process

Development of a model curriculum is a complex process, involving a diverse group of stakeholders, and requiring a significant amount of time and effort. One purpose of the model curriculum development process is to assess and document the current state of IS graduate education. Accordingly, this effort documented characteristics regarding a large number of IS graduate programs (see later section). Attributes regarding entrance requirements, language of instruction, duration of the program, curriculum, and specific coursework are captured. The resulting repository provides a snapshot at a moment in time of the current state of graduate IS education worldwide enabling one to uncover similarities, differences, and potential gaps. The resulting repository serves as a major input to the completed MSIS 2016 curriculum.

The model curriculum development process also involves obtaining extensive feedback from the IS community. Panel discussions have been and will be held at major IS conferences (ECIS, PACIS, and AMCIS) to obtain feedback and guidance on the model curriculum. In addition, graduate IS program administrators were surveyed to obtain their feedback and input. The needs of industry partners were also incorporated via analysis and discussion of competence frameworks that document desired workforce skills of IS graduates (such as the European e-Competence Framework, the BCS SFIA Plus, and US DOL O*Net; see section 7). To foster collaboration and provide multiple opportunities for comment and feedback, two full drafts of the proposed MSIS 2016 model curriculum will be circulated to the IS community for comments and feedback prior to final publication (in addition to this document).

The realized/planned key milestones of the MSIS 2016 revision process are as follows:

- January 2015: Task force work started
- April 2015: First face-to-face meeting took place
- June 2015: First deliverable (a statement of principles and description of context; this document) was made available for public review
- August 2015: Review and comment period for the first deliverable ends
- December 2015: Second face-to-face meeting
- Mid-January 2016: First complete draft will be made available for public review
- Mid-February 2016: The comment period for the first complete draft closes
- Late May 2016: The second complete draft made available for public review
- End of June 2016: The comment period for the second complete draft closes
- August 2016: Third face-to-face meeting
- September 2016: Submitting the finalized product to AIS and ACM for approval
- December 2016: Launch of MSIS 2016 at ICIS 2016

The model curriculum development process will be transparent, comprehensive, and inclusive providing the entire global IS community with an opportunity to contribute and provide feedback on the development process as well as the final model curriculum artifacts. Accordingly, the resulting end product should be useful, impactful and possess a high degree of stakeholder concordance.

5.3 Role and Importance of the Model Curriculum and Model Curriculum Artifacts

The model curriculum contains recommendations regarding degree specific characteristics such as expected background knowledge prior to entering a program, recommended duration of a graduate program of study, required business coursework, required IS coursework, and a list of possible elective coursework. As a foundational element, the curriculum specifies the capabilities IS graduates are expected to have upon completion of an IS program of study. In addition, the model curriculum is designed to be flexible allowing customizations to meet unique regional and market demands. Furthermore, the model curriculum includes an IS course catalog consisting of exemplars of course descriptions.

The model curriculum and corresponding artifacts serve a number of important roles, such as providing a means to communicate the content and structure of IS graduate education to a broad audience. IS faculty, administrators, students and industry partners will have access to a model graduate IS curriculum, a detailed and comprehensive description of IS courses and an extensive list of expected capabilities of IS graduates. Communicating the model curriculum will lead to new ideas for faculty teaching courses, will help program administrators better understand and plan for the resources required to effectively implement a graduate program of study, will aid students in selecting a field of study, and help industry partners better understand the capabilities of IS graduates.

The model curriculum should also foster innovation and improvement in terms of program structure, content and delivery. Academic administrators will be able to use the model as a basis for benchmarking and comparison identifying similarities, differences and gaps. An understanding of the full range of options to consider when designing a graduate program of study will lead to better, more informed decisions regarding individual IS graduate program design.

Defining the expected competences for IS graduates will be significantly expanded in this edition of the model curriculum, which will provide a number of unique benefits. Industry partners will better understand the skills and abilities of graduates, thereby more efficiently placing students in correct jobs and reducing the amount of post-hiring training required before employees become fully engaged. In addition, the competence perspective allows students to know what to expect in terms of desired outcomes providing insight into course selection and career trajectories. The competence perspective is designed to bridge the gap between the knowledge acquisition focus of a typical graduate educational program to include a skills and capabilities focus desired by industry professionals in the workplace. Improved coordination between IS programs and industry partners should lead to more efficient hiring processes and better prepared students who can immediately contribute to the success of the corporate IT function.

Figure 2 depicts the role and importance of the IS model curriculum.



Figure 2. Model Curriculum Role and Importance

6 Current Status – Review of Global IS Master's Program Practices by Region

The earlier MSIS model curricula have focused mainly on degrees in business schools in the U.S. However, the work of the preliminary review task force (Topi et al. 2013) and an increasingly strong global orientation of AIS and ACM incentivized both organizations to include a global perspective in the revision task. Therefore, the members of the task force represent all three AIS regions: Region 1, the Americas; Region 2, Europe, the Middle East, and Africa; and Region 3, Asia and the Pacific.