SIGED 2019

IS2020

UPDATING THE MODEL CURRICULUM

- IS 2020 -- time for review and revision
- IS 2010 (Topi, et al)
- IS 2002 (Gorgone, et al)
- IS’97 (Longenecker et al)
- IS’90 (Longenecker, et al)
- IS’81 (Nunamaker, et al)
- DPMA ‘86 (DPMA)
- IS’72 (Teichroew, et al)
### IS2020 Curriculum Taskforce

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PANEL AS PART OF THE IS2020 WORK

- IS2010 approved by ACM/AIS in 2009
- Exploratory committee report published in 04/2018
- IS2020 Task Force initiated in 04/2019
- First panel in AMCIS 08/2019
- First F2F meeting following AMCIS 08/2019
- We are in the very beginning stage
  - all kinds of inputs are valuable!
PANEL SCHEDULE

- Introduction
- Key principles identified by the Exploratory Taskforce guiding the IS2020 efforts
- Articulation of the current (IS2010) model curriculum - issues suggesting updates.
- Current model curriculum trends and movement towards the use of competency models.
- Changing industry expectations: adequacy of IS2010
- IS2020 project schedule and IS2020 as a living document
- Open discussion

Please feel free to ask/comment at any point!
GUIDING PRINCIPLES (EXPLORATORY TASKFORCE)

The model curriculum should:

1. represent a consensus from the IS community.
2. be designed to help IS programs produce competent and confident entry-level graduates well suited to workplace responsibilities.
3. guide but not prescribe.
4. be flexible and adaptable to most IS programs.
5. not be restricted to a specific application domain.
6. determine whether the model curriculum must have a core of content that is common to all IS programs globally.
7. not focus on specific issues related to pedagogy.
8. be coordinated and aligned with CC2020.
Seven Core Courses recommended by IS2010

1. Foundations of Information Systems
2. Data and Information Management
3. Enterprise Architecture
4. IS Project Management
5. IT Infrastructure
6. Systems Analysis and Design
7. IS Strategy, Management, and Acquisition
IS 2010 CURRICULUM GUIDELINES FOR INFORMATION SYSTEMS ACM/AIS

Website Data from 44 Information Systems Departments

1. Foundations of Information Systems (100% required)
2. Data and Information Management (91% required, 9% elective)
3. Enterprise Architecture (24% required, 12% elective, 64% not evident)
4. IS Project Management (35% required, 24% elective, 41% not evident)
5. IT Infrastructure (35% required, 24% elective, 41% not evident)
6. Systems Analysis and Design (38% required, 24% elective, 38% not evident)
7. IS Strategy, Management, and Acquisition (41% required, 18% elective, 41% not evident)
Should any of these topics be core competencies?

- Application Development (programming)
- Solution Architecture
- Data Analytics
- Human Computer Interaction/User Experience
- Cybersecurity
- Ethics and the Role of IS in Society
- Digitalization / Innovation
- Others?
PREVIOUS APPROACHES

- IS curricula (IS 2002, IS 2010, MSIS 2000, and MSIS 2006) have been represented mainly through courses: Core and Electives
  - For each course learning objectives and topics are defined
  - Emphasis on a course-specific view
    - IS 2010: Specified program-level graduate capabilities at a high level of abstraction, but no mapping to the course level

Source: MSIS 2016: Global Competency Model for Graduate Degree Programs in Information Systems
LEARNING OUTCOMES AND COMPETENCIES

- What is a Learning Outcome (LO)?
  - “relate to the knowledge, skills, and behaviours that students acquire as they progress through the program” (ABET)
  - Example: Acquire system requirements specification skills

- What is a Competency (CE)?
  - *What an individual is able to* *DO* *on completing a course* (Ilse Baumgartner and Venky Shankararaman. 2013)
  - **CC2020**
    - Competencies = Knowledge (K) + Skills (S) + Dispositions (D)
    - Competency Leaf Framework (Frezza et al., 2018) In the context of a competency, a disposition helps to order knowledge and skill in context; to connect the ability (knowledge and skill) with the follow-through of the appropriate behavior.
COMPETENCIES

- Competency = Knowledge + Skill + Dispositions

- Knowledge - a fact/idea that enables satisfactory performance of relevant tasks

- Skill - a degree of mastery in applying a fact/idea to achieve a valued outcome

- Dispositions - values and motivation that moderates skilled behavior to influence a quality of professional performance
IS2020 AS A LIVING DOCUMENT

- Purpose: Designing IS2020 as a ‘living artifact’, to be continuously updated based on ongoing insights and developments from academic and professional communities.

- Initial ideas/questions:
  - Interactive digital platform/forum/apps?
  - Annual panels in academic/professional conferences?
  - Permanent joint committee?
  - Integration with e.g. CC2020 and MSIS2016?
  - Other?
PRELIMINARY TIMELINE

- First F2F meeting following AMCIS Aug. 2019
- EDSIGCon 2019
- Second F2F meeting in Munich Dec. 2019
- Second panel in SIGEd conference, Munich Dec.14th 2019
- Additional panel presentations during 2020
- Target: first version of guidelines by Dec. 2020 @ ICIS 2020
- Publication of guidelines, targeted for CAIS summer 2021
- IS2020 as a living document
HOW TO FOLLOW OUR WORK?

IS2020.org

Comment/feedback tool coming soon for you to contribute to this process.