ABSTRACT

Five years have passed since the final publication of the ACM-IEEE information technology (IT) four-year curricula guidelines (IT2008) [1]. In September of 2012, the ACM Education Board initiated an exploratory invitation to the Special Interest Group for Information Technology Education (SIGITE) to determine the efficacy of the current IT curricula guidelines and to suggest recommendations, if any. In this panel the group members will report on its current progress and will solicit input from participants on what aspects of the model curriculum need to be revisited.

Categories and Subject Descriptors
K.3.2 [Computer and Information Science Education]: Curriculum

General Terms
Documentation, Standardization

Keywords
IT2008, Model Curriculum, Information Technology Education, IT BoK

1. INTRODUCTION

The Association for Computing Machinery (ACM), for its Education Board and in cooperation with representatives from relevant societies such as the Institute for Electrical and Electronic Engineers (IEEE) [2] and the Association for Information Systems (AIS) [3], has supported for decades the development and evolution of computing curricula models. Examples of such curricula models in addition to IT2008 [1] include computer engineering (CE2004) [4], information systems (IS2010) [5], and, currently in development, computer science (CS2013) [6]. Because of the dynamic nature of the computing disciplines, computing curricula require periodic examination and analysis to determine whether they need modification or enhancement to maintain their currency, relevancy, and usability.

2. Task Group Creation

In an effort to accelerate the ongoing effort to retain currency in its curricula guidelines, the ACM Education Board decided to establish an exploratory Review Task Group for Information Technology (RTGIT) to review the IT2008 document. Dr. John Impagliazzo will serve on the RTGIT as the Education Board representative. Additionally, the ACM Education Board requested that the Special Interest Group for Information Technology Education (SIGITE) [7] recommend eight individuals from which the Education Board will select at least two participants. The result being that the RTGIT will consist of at least four, but not more than six individuals appointed by the Education Board who will represent diverse interests in the area of information technology. In addition, the Education Board requested that the RTGIT include cross discipline participation with an international perspective. Following this process the above group members were selected.

3. The Task Group’s Mandate

The ACM Education Board gave the RTGIT the following mandate:

1. Conduct a “consultation process” to collect information and opinion from the principal curriculum stakeholders (industry and academia) regarding the need for modification of the IT2008 curriculum model to include elements such as its
body of knowledge, curriculum architecture, pedagogy, and infrastructure. The Education Board recommends that the RTGIT use a variety of methods for this consultation such as web/email communication, academic and industry surveys, and comments from academic individuals and industrial contacts.

2. Analyze and assess the results of the consultation process to determine whether the document needs modification and if so, describe the type and extent of the changes needed.

3. Prepare and submit a brief report to the ACM Education Board. The report should describe the consultation process used and present an analysis, assessment, and evaluation of the information collected. … (There are further instructions for the task force should we decide to recommend that the model curriculum be revised).

4. Panel Activities
   The task group members will report on their findings so far. The major part of the panel session will be collecting feedback from the attendees as to what aspects, if any, of the model curriculum need to be updated. This session will be a part of the consultation process identified in the task group’s mandate.

   In addition, discussions and questions will be encouraged throughout the session. The major topics to be covered are:

   - The definition and meaning of information technology in an academic setting and the many overlapping degree titles in the discipline
   - Background, goals, and timeline of the revisions effort
   - Current body of knowledge (BoK) structure and its value in today’s world
   - Overview of non-technical areas needed for a useful degree in information technology
   - Ways to involve more people should IT2008 require significant updating
   - Public access current RTGIT activities
   - Additional discussion of items of audience interest

5. Panel Presenters
   A brief background for RTGIT members follows.

   Bill Paterson (Mount Royal University) is past department chair of Computer Science and Information Systems. He has been a member of Canada’s Information Systems Technology Accreditation Council (ISTAC) [8] for five years and is its current chair. He is chair of RTGIT.

   Mary Granger (George Washington University) is a member of ACM SIGSCE and AIS SIGED. Mary was AIS Vice President of Education and Director of the Masters of Science in Information Systems at GWU. She is an ABET Program Evaluator for Information Systems.

   John Impagliazzo (Hofstra University) is a member of the ACM Education Board and he represents this board on the RTGIT. John was a member and principal co-author of CE2004 committee and currently leads the ACM initiative addressing the revision of CE2004. In addition to participating on the panel, John will present a brief history of computing curricula evolution, provide a brief overview of the IT2008 body of knowledge, and contrast parallel curricula activities related to the current effort for information technology.

   Edward Sobia (United State Military Academy) is an associate professor in the Department of Electrical Engineering and Computer Science where he has directed both the IT and Core IT Programs. He has a PhD in Computer and Information Sciences from the University of Minnesota. His research interests include electronic privacy, computer science & information technology education, computing ethical and legal considerations, and artificial intelligence.

   Mark Stockman (University of Cincinnati) is a long time member of ACM SIGITE and currently serves on its Executive Committee, having previously held the positions of Chair, Vice Chair, Regional Representative, and General Conference Chair. Mark is also a member of the Criteria Committee for CSAB, the lead society within ABET for accreditation of degree programs in computer science, information systems, software engineering, and information technology.

   Ming Zhang (Peking University) is a member of the ACM Education Council and a senior member of China Computer Federation. Prof. Zhang has been a member of the Advisory committee of Computing Education, the Ministry of Education in China for more than 13 years. Prof. Zhang will introduce the Computing Curricula in China, named CCC 2006 and the ongoing education reform, especially the big tent of IT undergraduate education in China

6. References
