Abstract

Session F1B: Mini Workshop The CS2013 Computer Science Curriculum Guidelines Project

Chair: Joseph G. Tront, Virginia Polytechnic Institute and State University

Time: Friday, October 14, 2011, 8:00 a.m. 9:30 a.m., Civic Center Room

Abstract Are you trying to integrate interactive simulations, applets, case studies, courseware or other web-accessible materials into your classes? Where do you go to find these digital learning materials? How do you evaluate the quality of the materials you do find? Are there digital learning materials available that are aligned with the ABET criteria? Are there related resources for assessing student outcome assessments that you can use? How can you customize your course website with supplemental materials for students? How can you find a collection of self-studies that can be used to guide a department as they prepare for the ABET review process?

This workshop introduces faculty who are interested in integrating digital learning materials in their courses to a set of criteria and methods useful in selecting and evaluating the quality of these materials to help achieve their course goals. The workshop focuses on the 10,000 educational resources cataloged in the Engineering Pathway digital library "http://www.engineeringpathway.org" and goes through the resources and tools available for faculty to use to locate, evaluate and select helpful digital learning materials to achieve their teaching and learning goals. Participants will be introduced to a general intellectual framework for integrating digital learning materials that stresses identifying the particular learning objectives and pedagogies for the use of particular materials. Participants will be introduced to two sets of evaluation criteria, those used in the Premier Award for Excellence in Engineering Education Courseware and another set that is used to guide catalogers as they register materials in a digital library. They will have a hands-on opportunity to apply these criteria to better understand the metrics for quality in digital learning materials, and how to apply these metrics to materials they are considering using to help achieve their course goals.

The workshop also helps faculty locate courseware that can help satisfy the ABET criteria for evaluation. For those preparing for the ABET review process, the Engineering Pathway identifies a number of self-study that can be used to guide departments in the development of measurement instruments and processes.

Lastly, the workshop will introduce new tools for student engagement with history of technology and well as current news in each discipline. Annotated textbooks with links to context-sensitive links to Engineering Pathway resources will also be explored.

Bio

Chair: Joseph G. Tront, Virginia Polytechnic Institute and State University

Cite this work

Qaiser H Malik (2011), Mini Workshop How to Improve Teaching and Learning: Selecting, Implementing and Evaluating Digital Resources in the Engineering Pathway, "http://cleerhub.org/resources/420"