Teaching Web Development

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The world of web development has experienced a great deal of change over the past decade and many educators struggle to craft curriculum in this area that covers not only the relatively stable essentials but also addresses the dynamics of change in web development. Unlike most computing courses, web development as a topic area tends to have a multitude of different curricular approaches.

This issue has two inter-related aims. The first of these is to communicate current approaches to teaching web development that will be of interest to the wider TOCE community. The second is to reignite the conversation about what role, if any, that web development should have in current computing curricula. Authors are especially encouraged to address the question of what are the fundamental concepts that should be taught in any web development course. Preference will be given to papers that are based on empirical research. Empirical findings may be based on the following, though other rigorously carried out research and evaluation designs are also encouraged:

1. Systematic reviews of student work.
2. Student surveys addressing perceived accomplishments and difficulties.
3. Instructor interviews summarizing course goals and best practices.
4. Assessments of student answers on exams.

Accounts of course development undergoing multiple iterations and informed by rigorous assessments are particularly valued. Contributions that draw upon established principles of student learning or relate to best practices in computing education will be strongly encouraged. Papers that relate web development course goals and projects with current ACM curriculum models and approaches are also encouraged.

A preliminary one–page abstract of the paper is due October 1, 2013. Feedback will be provided to authors by November 1, regarding relevance of the proposed paper with respect to the Special Issue. If invited, full paper submissions are due February 1, 2014, with publication expected in 2014. Submissions must be done via Manuscript Central (http://mc.manuscriptcentral.com/toce). In the cover letter, please indicate that the paper is for the Special Issue on Teaching Web Development. More information about the TOCE review criteria can be found on http://toce.acm.org/authors.html.

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