Town Hall Discussion of SE 2004 Revisions (Panel)

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Abstract—This panel will engage participants in a discussion of recent changes in software engineering practice that should be reflected in curriculum guidelines for undergraduate software engineering programs. Current progress in revising the guidelines will be presented, including suggestions to update coverage of agile methods, security and service-oriented computing.

Index Terms—ACM, IEEE Computer Society, Curriculum guidelines, software engineering 2004, undergraduate programs.

I. DESCRIPTION

Software Engineering 2004: Curriculum Guidelines for Undergraduate Degree Programs in Software Engineering (SE 2004)[1] is one volume in a set of computing curricula adopted and supported by the ACM and the IEEE Computer Society. To keep the software engineering guidelines up to date the two professional societies established a review project in 2011 and a revision project in 2012. We plan on engaging the software engineering community at ICSE 2013 in a discussion of proposed and needed revisions to the curriculum guidelines.

The review team conducted an online survey to collect suggestions from the software engineering education community. They also gave presentations and engaged in discussions at the 2011 Conference on Software Engineering Education and Training and at the 2012 Annual Conference of the American Society for Engineering Education.

Based on the results of the survey of constituents, the review team concluded that the overall structure of SE 2004 is sound and can serve as a framework for a revised version. The body of knowledge, Software Engineering Education Knowledge (SEEK), can be updated to address the issues identified in the review project. Topics to be introduced in the revision could include:

• Agile methods: these are becoming more widely-used and many companies believe they are effective
• Software security: increasingly important as Symantec now reports that more than half of security vulnerabilities are due to software faults [2]
• Service-oriented computing technologies: these have become more widely-used and important

A project to revise the guidelines, called SE 2013, has been approved by the IEEE Computer Society and the ACM. Our team of six volunteers from the Computer Society and the ACM has begun work and plans to publish a revised set of guidelines by the end of 2013.

During this session we will engage attendees in a discussion of recent changes in software engineering practice that should be reflected in the curriculum guidelines. The session will start with a brief overview of the current guidelines, followed by a summary of suggested changes collected so far. Most of the session will be devoted to comments and questions from the audience. We will start that discussion through examples of recent changes in software development practices, such as the increasing adoption of agile methods. The results of the session will help inform the revision team of needed changes in the curriculum guidelines. A summary of the session will be made available on a public website.

REFERENCES
