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Title: Teaching Open Source

Abstract: Involving students from a wide range of backgrounds in Free and Open Source Software (FOSS) project communities gets them a hands-on, portfolio-building experience in the creation of a real-world project while simultaneously building their institution's public profile. The Teaching Open Source (<http://teachingopensource.org>) community is an emergent (3 year old) group working on scaffolding to bridge the cultural differences between academic and FOSS communities of practice. Join us to share questions, challenges, and triumphs of incorporating FOSS participation into existing and new curricula as well support resources for doing so. Alumni and current members of the POSSE (Professors' Open Source Summer Experience, <http://communityleadershipteam.org/posse>) will attend in mentorship roles.

Significance and Relevance of the Topic: Faculty attendance at the SIGCSE 2010 BoF on Teaching Open Source (TOS) indicates that student involvement in FOSS projects is a teaching and learning approach of interest for many faculty members. The transparency of both artifacts and process make FOSS an attractive real-world experience that enhances peer learning and intrinsic motivation for a diversity of courses, from introductory, interdisciplinary, and non-major classes to software engineering core offerings and senior capstones. However, such student participation involves a significant learning curve and effort on the part of the faculty member, and support structures for faculty are still maturing. 2011-2012 marks the 3rd academic year the TOS community has explored this realm together, and the past year has seen the emergence of more best practices, support resources, and curricular material. Community members are starting to design cross-institutional research on the impact of FOSS participation on students. BoF attendees will be encouraged to ask questions, network, and take advantage of the TOS community as a support structure for their own courses and projects.

Expected Audience: The audience is expected to consist of instructors who 1) are interested in learning how to get started in involving students in FOSS projects; or 2) have involved students in FOSS projects and are looking for better ways to facilitate student learning within FOSS projects. We estimate at least 40 people will attend and perhaps up to 60. Last year this BoF had ~40 participants.

Discussion Leaders: The discussion leaders present four different perspectives on student participation in FOSS projects: undergraduate participant (Sebastian), instructor (Heidi, Karl, and Steven), graduate researcher (Mel), and FOSS industry/community (Sebastian and Mel). In addition, other members of the Teaching Open Source community have volunteered to help facilitate.

Expertise of Discussion Leaders: Sebastian Dziallas is an undergraduate at Olin College of Engineering and founder of the Sugar on a Stick project and Fedora's Education SIG. He and Mel Chua run Red Hat's education strategy as part of the company's Community Leadership Team, including the successful POSSE (Professors' Open Source Summer Experience) program for supporting faculty who are teaching open source. Ms. Chua is also a PhD student in Purdue University's Engineering Education department, a member of the Sugar Labs board, and a former engineer on the One Laptop Per Child project. Heidi Ellis is chair of the CS & IT department at Western New England University and has been publishing on and involving students in humanitarian FOSS since 2006. Karl Wurst is chair of the CS department at Worcester State University, and Steven Huss-Lederman is Associate Professor of computer science in the Mathematics and Computer Science Department at Beloit College. Drs. Ellis, Wurst, and Huss-Lederman are members of the 2011 POSSE (Professors' Open Source Summer Experience, <http://communityleadershipteam.org/posse>) cohort. Various group members have co-authored and presented on Teaching Open Source at prior SIGCSE and FIE conferences, among others.

Special Requirements: A projector with laptop connection is desired, but not required.