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Title Sustainable Methods for Impactful Service Learning in Computer Science

Abstract Service learning offers students of computer science an experiential opportunity to hone not only their technical skills of design and programming, but also the soft skills of teamwork, communication, and social/ethical behavior. With hard work, and effective mentoring from faculty, the output of student work can also benefit community partners, assuming there is proper infrastructure in place to provide long-term project management and technical support. This BOF provides a discussion platform to share lessons learned and best practices related to establishing a sustainable service-learning program within an undergraduate computer-science curriculum, with particular focus on balancing benefits to students and community partners with organizational overhead.

Expected Audience The audience is expected to consist of professors and lecturers who are interested in, and/or have experience with, integrating service learning within CS courses. Ideally there will also be staff members from organizations that have related experience (e.g. EPICS¹). Given an informal sample across three CS departments, I would expect at least 20 attendees.

Discussion Leader Durga Suresh (Associate Professor, Department of Computer Science & Networking, Wentworth Institute of Technology) has agreed to help me lead the discussion.

Expertise of Discussion Leaders ...

- Nate Derbinsky has been teaching at WIT for over two years, including introductory courses (CS1/2) and electives in databases, artificial intelligence, and machine learning. In these classes, and prior teaching-related roles, he has engaged a variety of service-learning and outreach opportunities including term projects (e.g. multi-institutional chemical safety management), summer programs (college-bridge, LEAD Engineering), ICT-D (e.g. Powering Potential²), and CS mentoring/advocacy (e.g. Random Hacks of Kindness).
- Durga Suresh has been teaching at WIT for over fifteen years, including courses in software engineering, databases, architecture, and capstone projects. She has been involved in service-learning projects in urban Boston and has developed CS-outreach-oriented seminar classes in which college juniors and seniors develop and deploy CS curricula to middle school students.

Special Requirements No special audio-visual equipment will be needed.

¹<https://engineering.purdue.edu/EPICS>

²Solar powered classrooms in rural Tanzania: <http://poweringpotential.org>.