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Changing the Conversation [1]:
A new role for technical communication in the engineering curriculum

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As university classes become larger in a climate of economic austerity, the call for "high-engagement, high-impact" [2] activities becomes louder. Faculty members in every discipline are encouraged to develop personalized experiential learning opportunities for their students in order to offset the impact of fiscal restraint in their classrooms. Many engineering educators in North America are looking to Community Service-Learning as a possibility [3].

This paper explores a possible new role for technical communication courses in the engineering curriculum, as exemplified by a Reading Week (Spring Break) project in Applied Science XXX: Technical Communication at The University of X in Y. At The University of X, Applied Science XXX is a regular, required credit course for engineering students in all disciplines: enrollment is 30-35 students per section, with approximately 28 sections per academic year. Students must pass this course to register for their final year of the Bachelor of Applied Science programme in Engineering. As such, it is highly standardized, with the same syllabus, the same textbook, and the same assignments and exams for all sections. The course introduces engineering students to several aspects of technical and professional communication: proposals, formal reports, team presentations, mechanism descriptions, instruction sets, and business correspondence, such as letters and memoranda, in response to socially contextualized case studies. In the January-April 2012 term, over half the students in one section opted to write a proposal and formal report that incorporated critical reflection on their experiences of mentoring elementary school children in various science projects at inner-city schools in Y.

If "community service-learning is an educational approach that integrates service in the community with intentional learning activities" [4], how does this optional Community Service-Learning opportunity specifically reinforce the core concepts of "audience and purpose" in technical communication? And further, how might it "change the conversation" of engineering, as posited by the National Academy of Engineering [1]?

A variety of Community Service-Learning opportunities in technical communication can be made relevant to engineering students in all disciplines if they are framed in terms of a larger social context, with explicit reference to economic, pedagogical, and ethical drivers. Emerging ideas of "global engineering" [5], [6] both at micro- and macro-levels will be explored as they relate to the pedagogy of engineering as service. How various professional codes of ethics play a key role in effecting social change will also be discussed.

This larger discussion serves as a framework for examination of team proposals and formal reports in APSC XXX. Drawing upon critical reflections in these two written assignments (used with permission), it is argued that technical communication courses are uniquely positioned to change public mis/perception of engineering, directly contributing to social change at a grassroots level if scaffolded appropriately.

A possible new role for technical communication is that of a broader role, as it moves from its marginal status as "handmaid" servicing the engineering profession to a mainstream community participant serving humanity. ■

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