Sean Munson | Teaching Statement

I have been lucky to have had a range of teaching experiences, from outstanding educators in primary school, to attending a small math and science high school that had the resources and flexibility to experiment with its curriculum, and helping create a new college as part of the very first group of students at Olin College of Engineering. Somewhere along the way, I developed a passion for education that combines technology, people, and context, and I look forward to a career that combines research and design with teaching and innovating in higher education.

Teaching Experience

As one of the first thirty students at Olin College, I spent a year trying out different approaches to courses and group projects, creating lab assignments, representing students on the committee that decided Olin's first curriculum, designing a business and entrepreneurship course stream, and creating institutions such as the student government. I continued thinking about higher-level curriculum issues in my first year at the University of Michigan, as a student representative on the curriculum committee.

As a PhD student at the School of Information, I was fortunate to have a variety of teaching experiences. I was a graduate student instructor (GSI) for SI501 Contextual Inquiry and Project Management. In this foundations course, first semester master's students work together in groups to help client organizations improve one of their organization's processes. Students learn about contextual inquiry, ideation, working in groups, and working with clients. For some, it is their first "real-world" group project.

In the Winter 2009 term, I was a GSI for both SI529, a master's level course on the Analysis and Design of Online Communities, and EECS182/SI182 Building Applications for Information Environments, an introduction to programming course for non-programmers in our undergraduate informatics specialization. In EECS182, I worked with my advisor, Dr. Paul Resnick, to completely overhaul the course. In the revised course, students used Python and Google App Engine to complete a stream of assignments working with Twitter data (Twitter also served as a course backchannel for feedback from students to the instructors) and individual or small group final projects. Through the assignments, students became acquainted with programming web applications, HTML, CSS, and accessing data through APIs, and their final projects were publicly available online, where classmates, friends, and family could try them out. I held office hours and provided support for students in the classroom, advised projects, helped create the syllabus and assignments and some examples used in class, and delivered two lectures. For this work, I received the Yahoo! Innovative Teaching with Technology Award.

During summer 2010, I was able to work with Dr. Paul Conway to prepare the first offering of SI410, Information Ethics, an undergraduate course. I helped identify issues to cover in the course, find readings and case studies, and develop assignments. Conway went on to win the Provost's Innovation Prize for this course.

I have also had some opportunities to supervise undergraduate students and interns in research, and have also helped write two NSF REU grant supplements to allow my research group to create these opportunities. Informatics undergraduate Emily Rosengren, now an application developer at ThoughtWorks, worked with me to develop, deploy, and study the use of public displays at the University of Michigan. This work led to a CSCW publication. Debra Lauterbach, as a master's student and then intern, helped conduct and analyze interviews in a study of *3GT*, an application I had built and deployed to explore how social network sites can be used to support wellness. She then went

on to take a leading role in a study of how people use online communities to meet their health needs, published at CSCW, before leaving to join Google to work on Google+.

Teaching Philosophy

From these experiences and the colleagues I have been able to teach with and learn from, I have developed and appropriated some beliefs that shape how I teach and advise students.

Teach with Passion. I try to teach using examples from my own research and work experiences, or work by others that excites me, whenever possible. This helps my passion and enthusiasm for the material come through in the classroom, and I have found that it is often contagious to students. I have had success bringing my research and other work into the classroom in all three courses for which I have been a GSI.

Give opportunities to learn by doing. Projects and other hands-on learning opportunities help make assignments more fun and help students engage with the material. I seek to make these opportunities appropriately authentic: there are times when students benefit from a sand-boxed experience in which they can experiment and try things and the instructor can be more certain the experience will meet the learning objectives, and times when students will learn more and be more motivated by problems closer to the real-world, with all of their inherent complications

Have high, somewhat ambiguous expectations... within limits. Without exception, my best classroom experiences have occurred when faculty members and peers have pushed me to do just a bit more than I thought I could, and my worst experiences have been when I felt underestimated or talked down to. While different students flourish in different environments, I think the ideal educational experience will push students as close to a flow state as possible: highly engaged, working to keep up, but not drowning.

Future Teaching

I am confident that my educational experiences and background have prepared me to teach a variety of undergraduate and graduate courses in the Human Centered Design and Engineering Department. I would enjoy teaching courses in human computer interaction (e.g. HCDE419, 455, 517), social computing, computer-supported cooperative work (e.g., INFO447), web application programming (e.g., CSE190, INFO343, INFO344, HCDE437, HCDE537), rapid design and prototyping (e.g., HCDE418), user-centered design (e.g., HCDE461), project management (e.g., HCDE403), and research methods (e.g., HCDE516, 519), as well as foundations courses such as HCDE400, 501, and 502. I would also be very excited to develop upper-level undergraduate or graduate courses in socio-technical design, focusing on the ways that designs of technological systems can nudge behavior. In these courses, students would learn behavior change theories from fields such as social psychology, behavioral economics, and public health, and implement these theories in systems or designs.

I also hope to continue to be involved in efforts to modernize engineering education to help develop students who are prepared to design and build systems that work within their context. This not only makes for better design but will also help students to be more competitive in their future careers. I believe that UW HCDE, with several faculty experts on engineering education, the Laboratory for Human-Centered Engineering Education, and the Center for Engineering Learning & Teaching, will be an excellent community in which I can continue to pursue this passion.