

FACULTY MENTOR Dow, Steven (Cog Sci) and Don Norman (ECE/Cog Sci/Psyc)

PROJECT TITLE Enabling Crowdsourced Visualizations to Support Large-Scale Civic Engagement

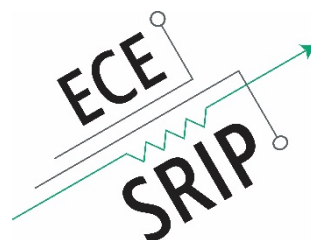
PROJECT DESCRIPTION

We seek MS and undergrads to work with Prof. Steven Dow, Prof. Don Norman, and postdoc Narges Mahyar to design, develop, and test an experimental platform for citizen deliberation that incorporates techniques from visualization and crowdsourcing. This platform not only solicits issues from citizens, but also visualizes opposing views and structures a deliberation process that leads to specific actions by governments and citizens. The visualization should provide a process overview and display available data throughout the process. The system will engage people in tasks based on their interest, expertise, location, and previous contributions. We will employ language topic models and use crowdsourcing to further make sense of issues based on these topics. Our visualization tool will help people identify important issues, arguments, and points of disagreement. We will also build a history mechanism that captures key interactions over time to help stakeholders propose and compare alternatives and vote on them. Our overall goal is to help citizens discuss issues in a more democratic manner and to identify solutions that satisfy more stakeholders.

INTERNS NEEDED 1 MS Student AND 1 Undergrad Student

PREREQUISITES

- Strong background in web scripting languages (i.e. javascript)
- Understanding of JSON, online database handling and querying
- Experience with language topic modeling (e.g, TF-IDF)
- Experience in D3, Vega, and Vega-lite



PREREQUISITES (CONT'D)

- Experience and good understanding of HTML5 and single-page web apps
- Familiarity with software engineering best practices (e.g. unit testing, code reviews, design documentation)
- Familiarity with principles of web-design and graphic design
- Strong attention to details and solid communication skills

