

ITR: Developing and Testing A High Telepresence Virtual Agora For Broad Citizen Participation: A Multi-Trait, Multi-Method Investigation

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Scientific research objectives:

The Virtual Agora Project has two major scientific research goals. We will develop video, audio, and text-based software tools that permit online groups to educate themselves and draw policy conclusions on complex issues. These online research and policy discussions are accomplished through collaborative information sharing and through structured discussions that can relay information and ideas among large numbers of people. We will also identify the factors that contribute to effective community engagement and individual empowerment through computer-mediated communication, in comparison with face-to-face deliberation within an experimental setting.

Management Structure:

Although the project is “located” at Ohio State, the software development and most social science analysis will occur at Carnegie Mellon University, through a collaboration of InSITEs – the Institute for the Study of Information Technology and Society, and CAAE - The Center for the Advancement of Applied Ethics Multi-Media Lab. In addition to the PI’s (Peter Shane, Peter Muhlberger and Robert Cavalier), our key personnel include Stuart Easterling – Technical Lead, Kim Falk-MacArthur – Project Coordinator, Liz Style – Lab Manager, Jeffrey Lam – Programmer, and Leslie Johnson – Programmer/ Designer.

Collaborations with Government Partners:

Our Phase I experimental deliberation will focus on the issue of public school consolidation. Our partner in this effort is the City of Pittsburgh’s Mayor’s Commission on Public Education. In

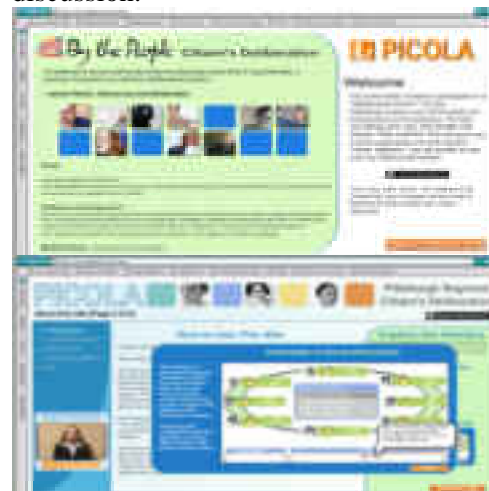
addition, we are exploring the utility of our software for other potential public sector partners, including the Federal eRulemaking Initiative and the Carnegie Library of Pittsburgh.

Accomplishments:

To date, we have developed software to support the July, 2004 experiment (Phase I) in which we compare face-to-face with on-line synchronous deliberations (under various conditions) concerning a significant public policy issue. The software is currently under beta-testing. We have also developed software to support extended asynchronous discussion among experimental subjects over a nine-to-twelve month period in Phase II.

On January 24, 2004, we underwent usability testing of an early prototype by creating an online version of a national deliberative polling experience regarding the U.S. role in the world. This early prototype of our software supported an online version of a Deliberative Poll© being conducted face-to-face by MacNeil/ Lehrer Productions and Stanford’s Center for Deliberative Democracy, with local co-sponsorship by the Carnegie Library of Pittsburgh. We conducted our on-line software test with a diverse group of community members of Greater Pittsburgh.

The following two pictures show software screens developed for the January online test. Picture 1 shows the ‘Welcome Screen,’ and Picture 2 illustrates a ‘preview’ of the synchronous online ‘roundtable’ for audio-based participant discussion.





In the above photos, we further illustrate the process of our online version of deliberative polling. You can view the moderator's and participant's use of our software to deliberate online. Each wore a headset and microphone to discuss the issues in an audio mode, while also reading information on-screen and using the computer interface to submit textual notes, trigger non-verbal cues (through icons) to speaker comments, and signal a desire to speak. We were pleased to observe that participants assimilated the process of listening, reading and responding very naturally without feeling hindered by the online experience. In one photo, you can also see an image of the web-cast of the expert panel from the Carnegie Library to the online participants at Carnegie Mellon University.

Potential Broad Impact:

Eventual data analysis from the experiment will yield significant insight into the relative merits of on-line and face-to-face deliberation with regard to impacts on participants, social effects, and quality of group decision-making.

We are also exploring a wide variety of potential software deployments, such as on-line public hearings, public opinion polling, interagency expert policy meetings, and online civic engagement application.

Challenges/Barriers:

Our challenges have been personnel staffing and coordination, dealing with complicated human subjects reviews; and working with external partners. In terms of personnel staffing and

coordination, we found that recruiting a team of outstanding technical professionals took time! We have also met challenges in conducting public outreach, software development, and complex social science research simultaneously with our small number of staff.

Our multifaceted research strategy has entailed highly involved human subjects reviews at Carnegie Mellon University and Ohio State University. Since we spent the first couple of years of the project in large part developing software, subject deliberation materials and surveys, our reviews did not consist of one yearly submission. We must file human subjects review materials once each year to both CMU and OSU, and additionally send updates on newly-developed materials in preparation for the experimental period of the study.

Coordinating research priorities with the agendas and needs of external partners has at times been challenging. Outside partners have not always understood clearly our need for research using scientific social science methodology or our use of software in the experiment. Education of the public and our partners has required our persistence and patience.

Research value when working in DG domain:

Our project provides substantial benefits from interacting with other researchers engaged in development e-government/e-democracy applications on questions of process and design. Significant benefits from sustained dialogue with government practitioners about the needs of the public sector and opportunities to deploy new technology have also been and will be a result of our work.

Recommendation for Improving Digital Government Program:

We share the idea that everyone has – that our process would be greatly aided by more money to sustain the infrastructure necessary to conduct ambitious research and public outreach.