

NATURE OF GRAVITY IN OPINION SPACE

Project Proposal

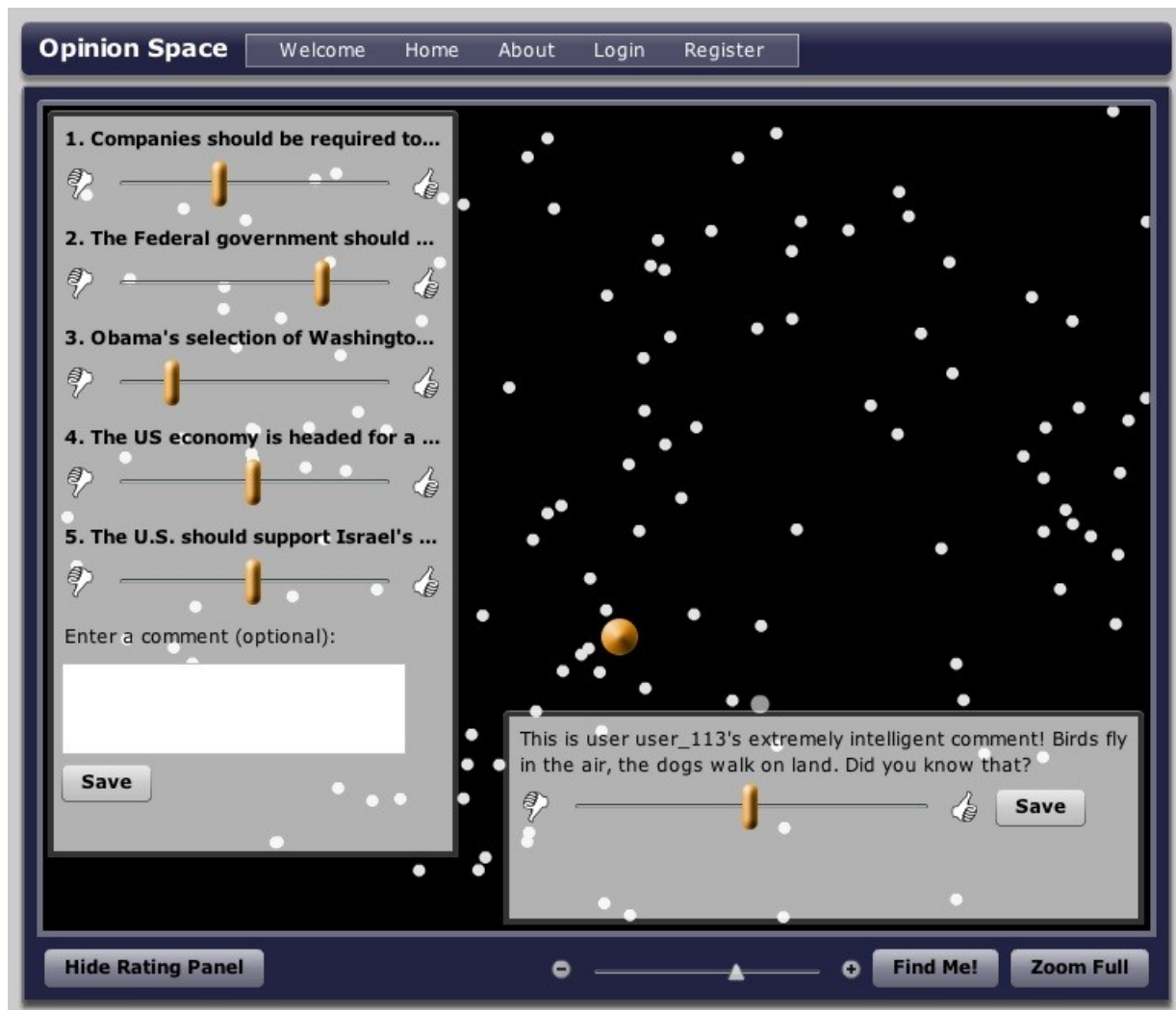


Figure 1: Screenshot of Opinion Space

BACKGROUND

Opinion Space is a new research project supported in part by the Berkeley Center for New Media. It allows users to express their opinions on various topics and see where they stand in relation to their peers in terms of those opinions. Hence, it is a tool for self-expression, information exchange, and connecting with others (both like-minded and contrary-minded users).

The Opinion Space website is comprised of multiple “Opinion Spaces,” where each space contains five propositions (statements). Visitors to a single space indicate their opinions by moving five corresponding sliders that range from disagreement to agreement (with the proposition), as depicted below:



After responding, each visitor is represented as a point in five-dimensional space, where each dimension represents one of the propositions. We use Principal Component Analysis to project visitors onto two dimensions and we display this two-dimensional plot. Users can adjust the sliders of any proposition at any time, causing their marker on the two-dimensional plot to move immediately.

In addition to allowing users to state their opinion on the five propositions, Opinion Space also allows users to provide an optional textual comment justifying their opinions. (This may eventually become a textual response to a regularly changing sixth proposition). When one clicks the markers representing others in the Opinion Space, other users’ comments are displayed.

Figure 1 shows a screenshot of the latest version of Opinion Space, to be released shortly. In future versions we plan to add a filter panel (to allow users to limit the markers shown to users who are a certain age, in a certain location, etc.), connect Opinion Space to Facebook (to allow users to see how they stand relative to their Facebook friends), and allow user creation of new Opinion Spaces (a new set of five propositions for others to rate).

More details on Opinion Space can be found at <http://opinion.berkeley.edu>

PROBLEM

We would like to measure and analyze the nature of *gravity* within Opinion Space, where we define gravity as the (attractive or repulsive) force exerted by one or many users’ opinions on other users’ opinions.

This will include investigating some or all of the following questions: which comments persuade users to change their opinions? Do people change their opinions for other reasons (other than reading comments)? Are there some users that have more gravity than other users? Is one’s gravity consistent across different Opinion Spaces (i.e. if one has a lot of pull in an Opinion Space about politics, will this carry over to an Opinion Space about sports)? Are people likely to shift their marker towards groups of other users, or away from groups? Would people want to identify with certain groups of users to make a statement?

APPROACH

We will need to add code to Opinion Space that will allow us to keep track of various user actions. After adding these features and releasing Opinion Space, we will be able to gather statistical data that will aid in answering some of the questions posed above (and thus in revealing the nature of gravity in Opinion Space).

We may also conduct a survey of Opinion Space users, asking them questions such as, “If you changed your ratings after you initially provided them, what made you change your opinion?” and “Is there a difference between your Opinion Space opinion and your real-world opinion?” These questions would help us further understand what causes users’ markers to move, whether a user’s real opinion is consistent with his/her opinion in an Opinion Space, etc.

THEMES ADDRESSED

PERSUASIVE TECHNOLOGY

Opinion Space is itself a piece of technology that is designed to facilitate the persuasion of users by other users. By reading comments and visualizing how they stand among fellow users, people are perhaps more likely to alter their opinions in some way. Part of the evaluation of Opinion Space is in seeing how effective it is at facilitating a change in opinion.

SOCIAL IDENTITY

We feel that this project is also related to the concept of social identity, particularly concerning how people use *comparison*. Humans tend to compare the groups they are in with other groups, sometimes to figure out where they belong. Opinion Space gives people the opportunity to visually compare themselves to others, and perhaps re-align themselves with groups that they feel are a better fit. Moving themselves towards groups may also be a sign of the desire for *identification*, which can be a source of self-esteem and confidence in their opinions.

We also believe there are those who find enjoyment or pride in being the only one with a particular set of opinions; they may desire this uniqueness, and we would like to understand this phenomenon better.

LEARNING EXPECTATIONS AND EVALUATION OF SUCCESS

In solving this problem, we hope to gain a clear understanding of the nature of gravity in Opinion Space and how it relates to users' actual opinions. It is important to note that people's real-world opinions are not necessarily the same as their opinions within Opinion Space; they might move their markers in Opinion Space without changing their actual opinions, and we hope to understand the interaction between these two variables.

We also hope that the results from this study will be helpful in the design of future versions of Opinion Space. If we find that some aspects of the system (e.g. not being able to see the two-dimensional plot before one provides his/her initial ratings) lead to greater or weaker gravitational effects, the system could be modified to enhance or reduce those effects.