

Towards Voter-Centered Design: A Demonstration of VotesBy.US

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ABSTRACT

In this paper, we present a short description of a web portal that helps voters decide about candidates and issues. VotesBy.US (www.VotesBy.US) was designed, and developed from the perspective of voter-centered design. Voter-centered design is a “design science” approach to the study of technology-enhanced political information browsing behavior. Using VotesBy.US, we are conducting a program of research aimed at understanding digital deliberation in the context of making voting decisions. Specifically, we are interested in understanding how voters go about searching and deciding about how to vote.

Author Keywords

Voter-centered design, votesby.us, participatory design, e-voting, e-democracy, e-participation, digital deliberation.

ACM Classification Keywords

H.5.3 Group and Organization Interfaces: *Theory and models, Asynchronous interaction Collaborative computing, Evaluation/methodology*; H.1.2 User/Machine Systems: *Software Psychology*.

INTRODUCTION

The internet continues to grow as an important political information tool. Smith & Raine [7] report that 46% of Americans have used the internet, cell phones, text messaging or e-mail to get information about the 2008 U.S. presidential campaign. They report increasing use of social networking sites and multimedia content such as online video, and use of these tools for multiple purposes such as scheduling political events and donating money. In terms of political news, 40% of all adults report using the internet in contrast to 31% at the same point in the 2004 election [1].

Despite this growth, the same report shows that a large percentage of “wired” potential voters view internet

information sources as being potentially misleading and extremist. One approach to mitigating this problem is to place more choice in the hands of voters.

Growth in use of internet-based information sources and technologies is so rapid that theory development and empirical study is lagging behind. We have argued for a “design science” approach to the study of technology-enhanced political information behavior [2, 4] which involves continuous cycles of development and empirical study of information systems for e-Democracy [5], however in practice we are discovering that these cycles must be quite rapid. We have been engaged in the iterative development of a political information foraging environment that encourages potential voters to examine information about candidates and issues more carefully than they would using a traditional search tool [3, 5, 6]. The environment, called VotesBy.US, is an interface to Google in which queries can be constructed using drop-down menus.

SYSTEM DESCRIPTION

In order to search the internet using VotesBy.US, users utilize an interface with two drop-down selection menus, one listing the candidates' names and another listing a set of issues (see Figure 1). The drop-down menus are designed to take advantage of recognition memory, and have been shown in this application to greatly enhance the breadth and depth of searches when compared to a traditional search tool [5].

Selections from the drop-down lists generate queries which are visible in a query box. When selections are made, the queries are automatically sent to the Google search tool. Selection of a candidate results in a search query consisting of that candidate's name and the office (e.g. “Jeffrey Brown Congress Arizona”). Selection of an issue results in a search query consisting of the issue keyword (e.g. “Civil Rights”). When menu items are selected from both lists the result is a combined query (e.g. “Jeffrey Brown Congress Arizona Civil Rights”).

An AJAX API to Google is utilized to fetch results and display them on pages with the following content categorization tabs: *Web, News, Blog, Video, and Book*. Users may page through results lists, or look at the results

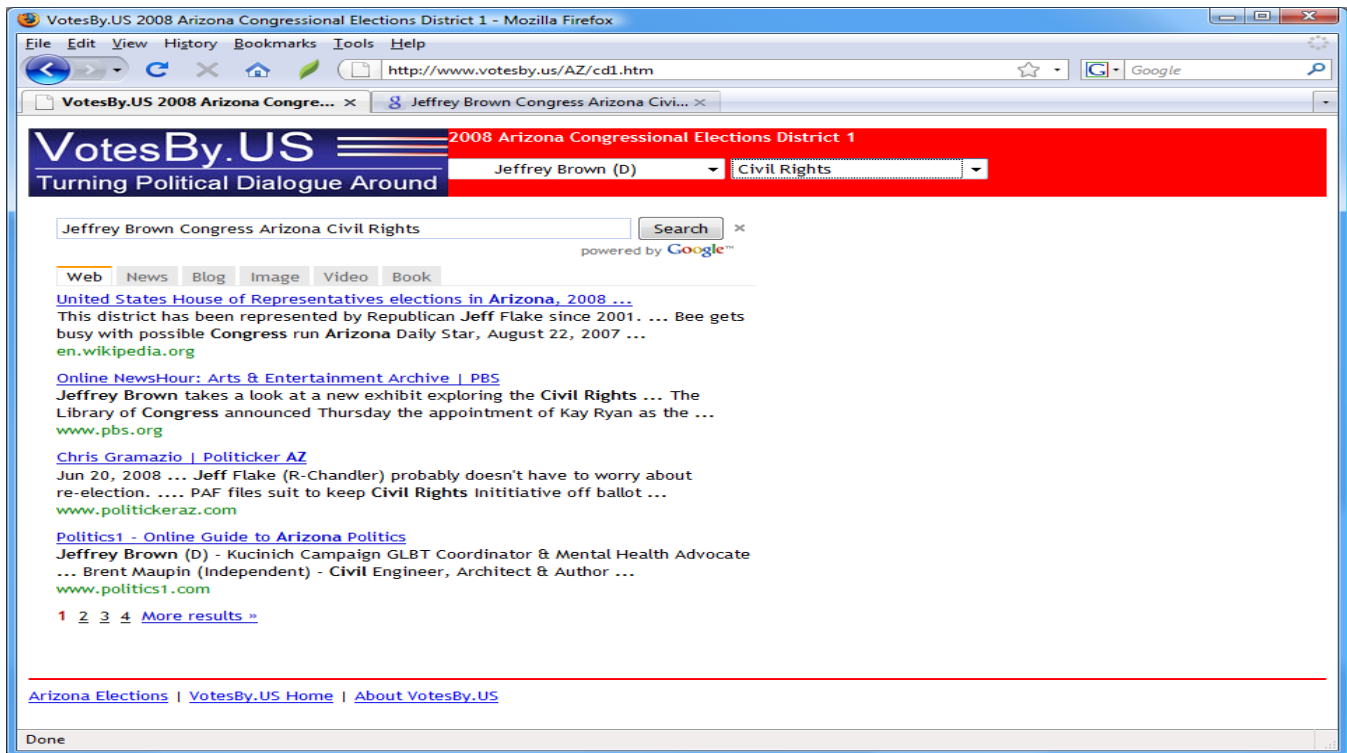


Figure 1: VotesBy.US Portal: The drop-down search interface allows users to select candidates from one list and issues from a second list. Menu selections result in automatic Google searches. Results are returned in tabbed categories.

lists under each tab, or open web pages from the results lists.

In Robertson, Wania, Abraham, & Park [5], we presented data on a study of the drop-down interface and showed that the interface encouraged more issue-based consideration of the candidates. We have shown that this interface encourages more thorough, more extensive, issue-based searching [4]. We recently studied the impact of an integrated annotation tool on search behavior, contrasting no-annotation with private- and shared-annotation conditions [6]. We found that note taking significantly influenced the manner in which participants browsed for information about candidates. Note taking, especially public notes, competed for time and cognitive resources and resulted in less thorough browsing. Think-aloud comments indicated that participants were more evaluative when taking notes, especially shared notes.

Future enhancements to the tool include a feature for personalization of the issue drop-down list.

SYSTEM DESCRIPTION

While this tool is simple, the impact that it has on search and browsing behavior is profound. The success of e-Democracy and e-Participation applications will depend as much on interface issues as any other factor in design. It is critical to understand how HCI influences behavior in this domain.

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