

This article was downloaded by: [American University Library]

On: 06 November 2012, At: 16:05

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Journal of Information Technology & Politics

Publication details, including instructions for authors and subscription information:
<http://www.tandfonline.com/loi/witp20>

Facilitating Diverse Political Engagement with the Living Voters Guide

Deen G. Freelon^a, Travis Kriplean^b, Jonathan Morgan^c, W. Lance Bennett^d & Alan Borning^b

^a School of Communication, American University, Washington, DC

^b Department of Computer Science and Engineering, University of Washington, Seattle

^c Department of Human Centered Design and Engineering, University of Washington, Seattle

^d University of Washington, Seattle

Accepted author version posted online: 22 Feb 2012. Version of record first published: 05 Jul 2012.

To cite this article: Deen G. Freelon, Travis Kriplean, Jonathan Morgan, W. Lance Bennett & Alan Borning (2012): Facilitating Diverse Political Engagement with the Living Voters Guide, *Journal of Information Technology & Politics*, 9:3, 279-297

To link to this article: <http://dx.doi.org/10.1080/19331681.2012.665755>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.tandfonline.com/page/terms-and-conditions>

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

Facilitating Diverse Political Engagement with the Living Voters Guide

Deen G. Freelon
Travis Kriplean
Jonathan Morgan
W. Lance Bennett
Alan Borning

ABSTRACT. Unlike 20th-century mass media, the Internet requires self-selection of content by its very nature. This has raised the normative concern that users may opt to encounter only political information and perspectives that accord with their pre-existing views. This study examines the different ways that voters appropriated a new, purpose-built online engagement platform to engage with a wide variety of political opinions and arguments. In a system aimed at helping Washington state citizens make their 2010 election decisions, we find that users take significant advantage of three key opportunities to engage with political diversity: accessing, considering, and producing arguments on both sides of various policy proposals. Notably, engagement with each of these forms of participation drops off as the required level of commitment increases. We conclude by discussing the implications of these results as well as directions for future research.

KEYWORDS. Civic engagement, fragmentation, online deliberation, selective exposure, voting

The potential of the Internet to empower politically interested citizens has fueled a vibrant body of communication research over the past decade. A number of these studies have focused on information sharing between citizens as an important mode of political expression, contestation, and reinforcement (e.g., Hargittai, Gallo, & Kane, 2008; Kelly, Fisher, & Smith, 2005; Papacharissi, 2004; Wilhelm, 1999). A glance at the blogosphere and certain regions

Deen G. Freelon is an assistant professor in the School of Communication at American University in Washington, DC.

Travis Kriplean is a postdoctoral researcher in the Department of Computer Science and Engineering at the University of Washington in Seattle.

Jonathan Morgan is a Ph.D. candidate in the Department of Human Centered Design and Engineering at the University of Washington in Seattle.

W. Lance Bennett is professor of political science and Ruddick C. Lawrence Professor of Communication at the University of Washington in Seattle.

Alan Borning is a professor in the Department of Computer Science and Engineering at the University of Washington in Seattle.

This research was supported in part by the National Science Foundation under Grant IIS-0966929.

Address correspondence to: Deen G. Freelon, School of Communication, American University, 4400 Massachusetts Ave NW, Washington, DC 20016 (E-mail: freelon@american.edu).

of Facebook and Twitter clearly shows that political content is in no short supply, but much of this exchange is governed by selective exposure and devoted to a politics of mobilization and ideological community-building (Farrell & Drezner, 2008; Karpf, 2008; Kerbel, 2009). In contrast, rational argumentation, consideration of multiple viewpoints, and respect between participants are by most scholarly accounts rare on the Web (Freelon, 2010; Janssen & Kies, 2005; Wilhelm, 1999). Empirical evidence thus far seems to indicate that when left to their own devices, most politically interested citizens will associate overwhelmingly with their own ideological kind (Adamic & Glance, 2005; Bennett & Iyengar, 2008; Hargittai et al., 2008).

Many have concluded that this lack of deliberative communication may be a result of platforms that are not designed with such values in mind, and as a result, deliberation may be discouraged even when participants are inclined to deliberate. This insight, in turn, has inspired the development of specialized discussion platforms intended to support online deliberative engagement. The general assumption underlying these enterprises is that particular technical designs inscribed with deliberative values can help make deliberative discussion easier for participants. Such technological facilitation might include features that promote good-faith consideration of a wide variety of viewpoints, the publication of arguments as opposed to general comments, and conversational civility. Prior online deliberation projects have employed some of these features, but most have primarily relied on top-down, administration-intensive discussion management processes that have proven difficult to extend to large numbers of participants (Iyengar, Luskin, & Fishkin, 2004; Price, Nir, & Cappella, 2006).

This study analyzes participant engagement with diverse political opinion that took place during a project called the Living Voters Guide (LVG). The LVG is a voters' guide written in by Washington state voters on the 2010 Washington state ballot measures. To facilitate the integration of the perspectives of many participants during the LVG, we built a platform that includes a number of tailored mechanisms

intended to nudge people to engage political difference without using a top-down approach. Specifically, the LVG promotes engagement with political diversity by creating opportunities for citizens not only to contribute their own opinions and arguments about the measures on the state ballot, but also to signal their own acknowledgment of others' contributions. Through this process, we expected that the LVG would help its users reach more thoroughly considered voting choices than they otherwise might.

This article examines three key political behaviors available to LVG participants: (a) voluntary *accessing* diverse opinion statements, (b) *consideration* of diverse opinion statements, and (c) the *production* of opinion statements on both sides of the issue. We refer to these activities collectively as indicators of diverse engagement, reserving the term "deliberation" for the broader concept of rational, civil, and cross-cutting political communication. We argue that our analysis of how users appropriated the unique interactive mechanisms afforded by LVG helps to expand our collective imagination of the potential forms that deliberation may take. The plan of the article is as follows: We begin by briefly reviewing the literature on selective exposure, diverse engagement, and online deliberation. Next, we describe the Living Voters Guide application, the platform's feature set, and the methods for extracting the study's empirical data. Finally, we report our results and discuss their implications as well as directions for future research.¹

SELECTIVE EXPOSURE

Selective exposure is one of the definitive normative issues of political communication in the early 21st century. Though the concept was originally drawn from research in the psychology of perception, Sears and Freedman (1967) provide a definition widely used in media studies: "People prefer exposure to communications that agree with their pre-existing opinions" (p. 197). The digital communication revolution revitalized selective exposure research, primarily because the resulting explosion of

programming choices requires far more discriminating selection criteria than the comparatively limited mass media menu of the 20th century. The Internet is a critical, but not the sole, contributor to this process—digital television, video games, mobile phones, and satellite radio also dramatically expand the universe of available media. Political content, once consumed by mass audiences in daily rituals of reading the local newspaper and/or watching network news, has now become only one of many niche subject areas vying for audience attention (Bennett & Iyengar, 2008; Blumler & Kavanagh, 1999).

Among the ranks of the politically attentive, a key concern is that individuals with strong ideological leanings may choose to access only, or overwhelmingly, media content that accords with their views (Bennett & Iyengar, 2008; Brundidge & Rice, 2008; Galston, 2003; Sunstein, 2007). In the U.S., the shift from largely homogeneous news outlets to a political news ecosystem that includes blogs, talk radio, late-night comedy shows, and politicians' social media presences has allowed political enthusiasts to tailor their media diets with an unprecedented degree of precision. Some scholars, notably Cass Sunstein, warn that this process of fragmentation will lead to increased partisan polarization among citizens and a diminished capacity to settle on sound, consensual public policy (Sunstein, 2007). Bennett and Iyengar (2008) predict that the most notable media effect in the era of media overabundance will be opinion reinforcement, which is fairly weak compared to mass media effects such as agenda-setting and framing. Nearly all observers agree that ideological fragmentation, to the extent that it is occurring, will result in less-informed opinions than exposure to an ideologically diverse diet of political content—indeed, the latter is a long-standing criterion for effective democratic engagement (Barber, 2003; Dahl, 1989; Entman, 1989; McChesney, 2004).

Recent empirical studies have done much to advance our knowledge of the dynamics of selective exposure in today's media-saturated world. One key finding is that attraction to opinion-reinforcing content and repulsion from opinion-challenging content are distinct

processes, rather than being perfectly correlated. People tend to be strongly attracted to the former but do not actively attempt to avoid the latter (Garrett, 2009; Gentzkow & Shapiro, 2010; Graf & Aday, 2008; Johnson, Zhang, & Bichard, 2011; Kobayashi & Ikeda, 2009). No consensus has yet emerged as to what factors predict these two dynamics. One strand of research holds that individuals may differ in their innate tendencies to seek out challenging information (Munson & Resnick, 2010). Several studies have found strength of political ideology to be a key predictor variable (Gentzkow & Shapiro, 2010; Knobloch-Westerwick & Meng, 2009), while others have focused on the role of issue importance (Iyengar, Hahn, Krosnick, & Walker, 2008; Kim, 2009). A third perspective highlights the influence of emotional reactions to perceived threat and information novelty on people's openness to challenging content (MacKuen, Wolak, Keele, & Marcus, 2010).

Though this research has revealed much that is of value regarding how people choose political content under circumstances of information overload, the concept of selective exposure is in need of a 21st-century update. The application of selective exposure to political media was established at a time when most people only connected to politics in top-down, mass-mediated ways. The term "selective exposure" conveys an interest in patterns of information access, as opposed to information production or the integration of accessed information into political decision-making processes. But the digital revolution has empowered citizens to do more than just consume media—they can now contribute their own content and reflect upon others' contributions. Not every citizen will do so regularly, but the opportunities currently available through digital media for creation and reflection far outstrip what was possible in the 20th century. Accordingly, a more inclusive conception of how people interact with political viewpoints that both agree and conflict with their own views is warranted. To this end, we develop a notion of *diverse engagement* that measures people's propensity to interact with a broad range of political perspectives in three key ways: access, consideration, and production.

DIVERSE ENGAGEMENT

Theories of deliberative politics stress the importance of engaging with a wide variety of political perspectives for citizen efficacy at the ballot box and in democratic society more generally (Bohman, 2000; Dahlberg, 2001a, 2001b; Habermas, 1989; Sunstein, 2007; Thompson, 2008). The deliberative norm holds that citizens' information diets should include at least some opinions and facts that contradict their pre-existing views. A commonplace example in American politics would be a conservative reading a newspaper column by a progressive writer. Normative democratic theorists consider engagement with diverse viewpoints an essential informational hedge against extremism, group-think, and intolerance (Guttman & Thompson, 1996; Sunstein, 2007). We use the term "diverse engagement" to denote our specific conceptualization of such encounters in light of the fact that deliberation is a vast, diffuse concept with multiple overlapping definitions. Such engagement is essential for diverse polities to negotiate their collective futures without lapsing into counterproductive polarization, or worse still, violence.

Citizens can diversify their political information diets in multiple ways. Two of the most frequently studied are (a) discussing political issues with individuals with whom they disagree and (b) interacting with content that represents viewpoints from across the ideological spectrum. Both activities accomplish the central goal of disseminating foreign opinions, either through top-down media consumption or back-and-forth discussion. In a media age defined increasingly by selective exposure, some scholars have pinned their hopes on conversation to bridge ideological divides (Kelly et al., 2005; Mutz, 2006; Wojcieszak & Mutz, 2009). While conversation has the potential to deepen adversarial discussants' understanding of each other's positions, it also runs the risk of devolving into rude and uncivil "flaming" (Alonzo & Aiken, 2004; Hargittai et al., 2008). Managing political conversations to prevent this outcome can be resource-intensive, often requiring active facilitation by trained moderators and synchronous sessions that assemble all participants at the same time (e.g., Iyengar et al., 2004).

Instead of examining conversation, this study will adopt an approach to diverse political engagement that focuses on three key evaluative metrics: access, consideration, and production. The access metric is drawn from the selective exposure literature and examines the extent to which citizens choose to view opinions from multiple points of view. Consideration measures the incorporation of diverse opinions into citizens' political decision-making processes. This is important because the mere fact that someone is exposed to a viewpoint does not mean it will be accepted as valid (Zaller, 1992). Finally, production assesses citizens' propensity to create political content that expresses opinions on both sides of an issue.² It helps elucidate the extent to which citizens take advantage of the generative opportunities afforded by new media as opposed to simply working with content provided by others. Combined, these three metrics form an expansive conceptual and methodological suite for analyzing how people interact with diverse political opinions. Examining them together in the same study is all the more important given contemporary citizens' new capacities to create as well as consume political information, and the potential that both activities may jointly influence democratic choices.

Studying diverse engagement as defined above using traditional data sources such as surveys and content posted to existing Web sites is difficult for two main reasons. First, surveys might offer a vague sense of the diversity of people's information access, consideration, and production habits, but the results are likely to be distorted by participants' desire to appear even-handed. At that point, we might turn to existing online discussion platforms, but it is difficult if not impossible to collect the required data from these—we might get some idea of production diversity, but assessing consumption and consideration would require either access to the site's server logs or the installation of intrusive client-side tracking software. Second, even if it were possible to access data on user activity within an existing site, we would still be limited by the range of action the site affords. Since most active discussion sites are not designed with democratic norms in mind, they may not offer effective outlets for all of the

metrics outlined above. Accordingly, this study follows the lead of Munson and Resnick (2010), who call upon researchers to “. . . serve well the needs of those who are diversity seeking and provide them with the means to spread insights they gain from challenging content” (p. 9).

ONLINE DELIBERATION PLATFORMS

We are not the first scholars to attempt to design new technologies for engaging with challenging opinions. In light of the failure of popular online communication platforms to foster deliberation (Bennett & Iyengar, 2008; Lawrence, Sides, & Farrell, 2010; Wilhelm, 1999), many others have developed and evaluated a variety of platforms designed with deliberation in mind.³ These enterprises are premised upon the idea that certain digital “choice architectures,” to use Thaler and Sunstein’s (2009) term, can nudge people toward behaviors that are beneficial to them—in this case, deliberation. The features of deliberative systems are driven by the distinct notions of deliberation the designers have in mind. One popular type of system attempts to translate aspects of formal offline deliberative discussions, such as active discussion facilitation and controlled group sizes, into online contexts (Iyengar et al., 2004; Jankowski & van Os, 2002; Muhlberger, 2005; Price et al., 2002). Common features include synchronous communication (either by voice or by text) that requires both preset participation time slots and resource-intensive discussion facilitation (Iyengar et al., 2004; Price et al., 2006). Some systems include elected officials as participants, thus fulfilling the deliberative criterion that citizen discussion be linked to institutional power (e.g., Jankowski & van Os, 2002). Others attempt to implement online versions of well-known deliberation rule structures such as Robert’s Rules of Order (Schuler, 2009; Shanks & Dahlstrom, 2009). All of these systems represent attempts to overcome the aimlessness, redundancy, and incivility that characterize many popular online political forums. However, the majority of them do so in ways that

centralize control over the discussion agenda and the set of acceptable contributions.

The online political discussion platform we designed and built to support the LVG, which we call ConsiderIt, takes a different approach. ConsiderIt invites participants to create a pro and con list for each issue under consideration. They can write their own pros and cons, but also include those of other participants, which are displayed on the margins of their personal pro/con lists. Opposing viewpoints are thus juxtaposed in the same visual space so that participants cannot easily avoid one side or the other. ConsiderIt allows participants to access and engage with these diverse viewpoints in three basic ways: by producing opinion statements on issues, by considering others’ statements as important in their thinking, and by actively choosing to access others’ statements. While this approach inscribes a fairly clear set of interactive norms (a pro/con list without pros or without cons looks unbalanced), it still affords a generous degree of communicative latitude to its participants.

Our primary goal in this article is to begin to explore how participants appropriated these technological features to engage with political diversity as they used the LVG. Formulating expectations for participant use is complicated by the fact that although nudging people to engage with diverse perspectives was a central goal, most citizens probably lean one way or the other on a given issue and many probably did not come to the site with the goal of engaging people with whom they disagreed. Moreover, it is unreasonable to expect most participants to attend to both sides of most issues equally. This poses a challenge for interpreting whether our findings show significant evidence of diverse engagement or not; it is difficult to find comparisons that make sense. We hope that our findings will help to establish new baseline measures that can be used in future studies. In light of these concerns, we set forth the following research questions to guide our analyses:

- RQ1: To what extent will Living Voters Guide participants engage with arguments both for and against the political issues they are presented with?

- RQ2: What features will Living Voters Guide participants use most to engage with diverse political perspectives?

METHODS

The Living Voters Guide

The data we analyze in this article are drawn from the Living Voters Guide, an application meant to support deliberation on the 2010 Washington state ballot measures. In Washington state, measures can be added to the statewide ballot by the state legislature or, if sufficient signatures are collected, can be submitted directly by members of the public. Table 1 shows the Washington state ballot measures of the 2010 election. A number of these measures, such as the imposition of a state income tax (1098) on the wealthy, were hotly contested. These high-profile measures received a great deal of media attention, with strong pro and con campaigns injecting their own spin. Other measures were opaquely worded and confusing: For instance, the 2010 election cycle featured two separate measures that proposed to privatize the sale of liquor (1100 and 1105), but which did so in conflicting ways, so that the consequences of passing both measures were not clear. In this mediascape, there were few

places for citizens to actively work through the various arguments and claims being made by campaigns and pundits before contentious elections. Six months prior to the election, the authors partnered with Seattle City Club, a non-partisan civic organization, to create an online platform that supported any Washington voter in writing a voters' guide on these nine state-wide ballot measures. We felt that a cooperatively-produced voters' guide would provide a compelling opportunity for facilitating deliberation on a set of relevant public issues. This became the Living Voters Guide.

The LVG had several interconnected goals: (a) to help people learn about the measures; (b) to nudge people toward reflective consideration of issues and other voters' thoughts; (c) to enable users to see how others were also considering tradeoffs; and (d) to create a voter's guide that reflected the considered thoughts of a diverse group of citizens. In doing so, we hoped to foster the participatory creation of an information resource that would provide an engaging alternative to the mostly static, hyperbolic, and/or single-voice content available through various voter guides, campaign ads, and the mass media.

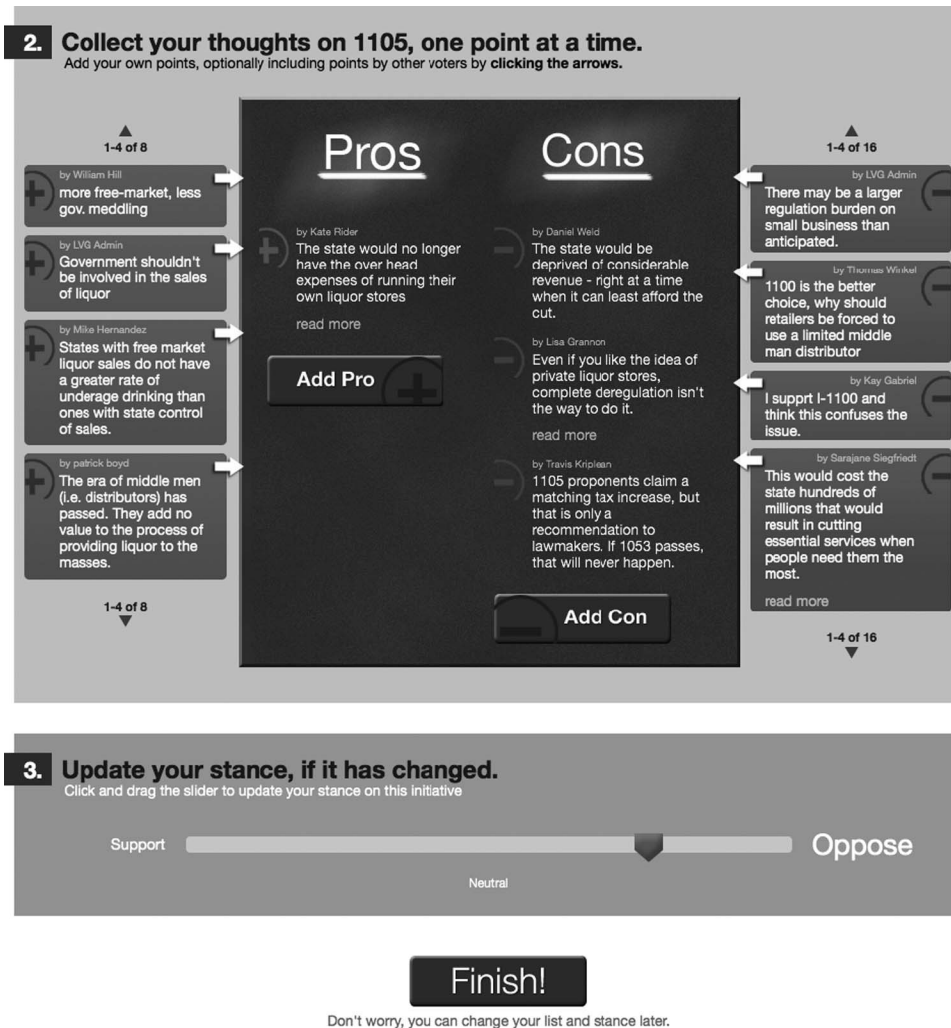
The home page provided a succinct description of the purpose of the LVG and directed users to get started by clicking on one of the nine ballot measures. When a user clicked on a ballot measure, he or she entered the *position*

TABLE 1. Descriptions of Ballot Initiatives Included in the Living Voters Guide

Number	Description
1053	Would require 2/3 supermajority vote of the Washington State Legislature, or a statewide vote, for tax increases.
1082	Would amend workers' compensation insurance in the state.
1098	Would tax gross income above \$200,000 for individuals, \$400,000 for couples. Would reduce state property tax by 20% and reduce certain business and occupation taxes.
1100	Would close state liquor stores and authorize sale, distribution, and importation by private parties.
1105	Would close all state liquor stores and license private parties to sell or distribute spirits. Would revise certain laws concerning regulation, taxation, and state revenues.
1107	Would repeal certain 2010 amendments to state tax laws including a sales tax on candy and bottled water and a temporary excise tax on soda pop.
52	Would authorize bonds for construction and repair projects increasing energy efficiency in public schools and higher education buildings.
4220	Would adjust the state debt limits.
8225	Would give judges authority to deny bail whenever they deem the public at risk.

Note: Descriptions taken from http://ballotpedia.org/wiki/index.php/Washington_2010_ballot_measures.

FIGURE 1. The position creation phase, showing the pros, cons, and individual pro/con list for initiative 1105.



creation phase (Figure 1). On this page, (a) a short description of the ballot measure was offered (drawn from official sources), (b) the user could manipulate a slider to indicate his or her support or opposition for the measure, and (c) the user could compile a pro/con list by including points authored by other users, produce new points, and view additional points not initially shown. For unregistered users, the pro/con list contained a prompt asking them to create an account or login to create a position.

After users submitted their positions, they were taken to the terminal page for that ballot

measure (Figure 2). On this page, users could print their position and share it with friends on Facebook and Twitter. Moreover, users could explore the salient pros and cons for the ballot measure, where salience is a ranking of pro and con points based on (a) how many other users included it in their pro/con lists, (b) the ratio of users who included it to users who viewed it, and (c) the appeal of the point both to users who supported the issue and to other users who opposed it. A bar graph was also displayed that showed the histogram of support and opposition for the measure. This graph was interactive: users could click on any bar (e.g., strong support

FIGURE 2. Terminal page for ballot measure 1105. The current breakdown of support for a measure is shown in a bar graph to the upper right.

Initiative 1105 - liquor (beer, wine and spirits) [show details]
 You oppose 1105. Thanks for taking a stand!

What next?

1. Print a summary of your position. And share it [Facebook](#) [Tweet](#)

2. Discuss the pros and cons of 1105.
 Click the discuss link to join or start a discussion about a point.

Support Level	Percentage
Support	6%
	7.5%
	9.8%
You	8.3%
	13.5%
	18%
Oppose	36.8%

Key points for those who moderately support 1105
 Points often included in the positions of those who moderately support Initiative 1105.

Click to see the most compelling reasons for people who are neutral on this measure.

Pros	Cons
<p>by Mike Hernandez</p> <p>States with free market liquor sales do not have a greater rate of underage drinking than ones with state control of sales.</p> <p>discuss</p>	<p>by Sarajane Siegfried</p> <p>This would cost the state hundreds of millions that would result in cutting essential services when people need them the most.</p> <p>read more discuss</p>
<p>by Mark Olinas</p> <p>Good for the free market and feasible for new taxes, thus removing the burden from taxing much needed commodities like bread and dairy.</p> <p>read more discuss</p>	<p>by LVG Admin</p> <p>There may be a larger regulation burden on small business than anticipated.</p> <p>discuss</p>
<p>by LVG Admin</p> <p>Government shouldn't be involved in the sales of liquor</p> <p>discuss (1)</p>	<p>by Michael Mabeuf</p> <p>Easier access to hard liquor will likely increase drunk driving and alcohol-related domestic violence offenses. Bad policy.</p> <p>discuss</p>
<p>by Phoebe Huang</p> <p>State will have more control of alcohol regulation by giving licenses to qualified distributors</p> <p>discuss</p>	<p>by Thomas Winkel</p> <p>1100 is the better choice, why should retailers be forced to use a limited middle man distributor</p> <p>discuss</p>

1 - 4 of 8 ▶

for a measure) to reveal the most salient pros and cons for those who took that stance. The results page also offered a discussion forum and provided a link that allowed users to return their pro/con lists and update their positions at any time.

ConsiderIt, the software platform supporting the Living Voters Guide, was primarily designed and developed between June and September of 2010. The second author led the design and development effort with assistance from the third author and a graphic designer. The rest of the project team decided on its features, provided feedback, and helped test the system throughout. The platform is a Ruby on

Rails project, with extensive use of the jQuery Javascript library for client-side interactions. We encourage readers to explore <http://www.livingvotersguide.org> to get a better sense of the unique interface mechanisms ConsiderIt offers.

The LVG was launched on September 21, 2010, to a crowd of 150 at a live City Club event. The site was open to anyone, and we tried to reach out as widely as we could within Washington state. City Club, which led the media outreach effort, was able to use its non-partisan status to spread the word through both liberal and conservative outlets. The LVG team secured news stories and editorials in, for example, the Seattle Times (September 27, 2010),

KIRO News (October 5, 2010), the UW Daily (October 20, 2010), and the Yakima Herald (October 27, 2010); some Web sites (such as the Seattle Public Libraries and Puget Sound public radio outlet KOUW) added a link from their home pages to the LVG during the election season; and the LVG was used in several University of Washington courses as well as in a local K-12 class (unprompted by us). A number of unsolicited blog entries written about the LVG also drove traffic, such as one on the Web site of Senator Tom Coburn (R-Oklahoma). Team members also reached out to family, friends, and colleagues through e-mail lists and social networking sites to encourage people to use LVG and spread the word. We created official LVG Facebook and Twitter accounts, through which we disseminated updates and reminders.

Between September 21 and November 2, our Google Analytics data reports that the LVG received 12,979 visits from 8,823 unique visitors who stayed on the site for an average of five minutes 40 seconds.⁴ Ignoring the 6,082 sessions where users visited only one page (e.g., the home page), users stayed on the site an average of 10 minutes 39 seconds and visited 6.1 pages. Users from 134 cities across Washington accessed the LVG. Our personal and professional outreach activated the greater Seattle region most: 50.4% of all of our traffic came from Seattle. A total of 477 people created an account and logged in to the LVG. Only these registered users could build pro/con lists; many visitors opted to simply browse the guide, where they could see the pros and cons that others had already submitted for each ballot measure. LVG users were given no training or elaborate instructions, only a brief description of the guide on the home page.

Data Sources

The data presented in this article are drawn exclusively from usage metrics captured in our Postgres database, which stored all data for the live LVG site. Our analysis draws on three core activities that users could engage in during their time on the LVG: (a) producing pro and con points, (b) considering pro or con points by including them in one’s own list, and (c) choosing to access points contributed by others. These activities represent different degrees of participatory engagement that can be operationalized to help us gain insight into users’ deliberative activities. Table 2 displays a summary view of these activities along with their operational criteria.

The data we have for unregistered users is sparser because there were fewer activities for these users to partake in. In this article, we therefore restrict our analysis to the activities of the LVG’s 477 registered and active users.

Our primary unit of analysis is a user’s position on a single ballot measure. A user’s position is composed of two parts:

1. His or her *stance*, a seven-point ordinal index from strongest support, moderate support, weak support, and neutral to weak opposition, moderate opposition, and strongest opposition. This value is derived from the position to which the user adjusts the stance slider shown in Figure 1.
2. His or her *pro/con list*, the list of pros and cons that the user wrote or included, representing that user’s reasoning. Users were allowed to submit a position with an empty pro/con list (503 positions did not include any points, while 678 did).

TABLE 2. Summary of Data Sources

Type	Authoring	Including	Reading	
Data	Writing a point	Including a point	Point expansions	Point views
Timeframe	9/21–11/2	9/21–11/2	10/17–11/2	9/21–11/2
Frequency	380	2,414	714	10,609

A single user could take up to nine positions, one for each measure. User statistics were as follows: 166 users submitted one or two positions, 81 users submitted between three and eight positions, and 61 users submitted a position on all measures.

Production

Producing new pro or con points is perhaps the most effortful contribution a user could make. As expected, it was also the rarest contribution, with 380 points (184 cons and 160 pros) authored by 147 users, distributed unequally across authors⁵ and ballot measures.⁶ The data suggest that the argument pool grew saturated over time, with the most obvious and popular arguments being made early on: 50% of all pro and con points were contributed in the first 15 days, whereas the total number of point inclusions (see below) took twice as long to reach its 50% mark (day 30).

Consideration

A prominent feature of the LVG user experience is the invitation to *consider* the pros and cons that other users have written. Including points in issue lists provides probably the most unique and theoretically rich data that we present here: 298 users included 372 points 2,687 times into 678 positions on the nine ballot measures.⁷ Despite our efforts at making the inclusion functionality prominent, a subsequent user study showed that some users still had difficulty discovering the ability to include points. We therefore restrict our analysis of inclusions to those positions where users included at least one point into their list. By restricting our data in this way, we know that a user's choice to include or not include points was not due to a usability issue.

Access

Users can still engage the arguments that others are making even if they do not include pros and cons into their position. Here we examine the extent to which users explicitly requested access to additional information, drawing on two data sources: users clicking on the "read more" button for a point and users requesting to

view more pro or con points than the four initially shown during the position creation phase. Because these two data sources come with a number of caveats, we will spend some time describing our procedures for handling the data.

Clicking the "Read More" Button

When adding a point, authors were required to write a 140 character "nutshell" version of their point, and were given the option of writing a 500-character long description (which authors did in 45.4% of points).⁸ When a point was displayed in a list to other users, the nutshell text was shown. If the author also wrote a long description, a "read more" button was shown below the nutshell (Figure 3). If a user clicked on the "read more" link, the point was expanded to show the long description. We call this event a *point expansion* and consider it a form of information access. We instrumented the site to capture all point expansions, though this data collection did not start until midway through the deployment (October 17, 2010). In this article, we use these expansions as indicators of whether users were attending primarily to one side of the issues or both.

This data source is not unproblematic. On one hand, expansions do not necessarily indicate that the users actually read the points, and if they did, how attentively. On the other hand, the expansion data severely underestimates the amount of point reading that users may have done. First, as noted earlier, only 45.4% of all points even had a long description. Second, the 140 character summary was often quite well written, so users may often have not felt the need to read more, preferring to read additional points rather than more about a single point. We filtered the 3,904 point expansions down to 714 by eliminating (a) expansions by anonymous users, (b) expansions by users who did not submit a position on the measure, and (c) duplicate expansions of the same point by the same user.

Requesting to Access More Pro or Con Points

When users were writing their pro and con lists, the pros and cons that other people had

FIGURE 3. Four of the 26 con points for Measure 1053.



submitted were displayed on the margins of the pro/con list, four points at a time. While the first four pro and con points were shown automatically on page load, all subsequent point listings were only served when the user explicitly clicked the “next” or “previous” arrow. This activity thus indicates users accessing pros or cons (Figure 3).

We recorded every time that a point was served to a registered user in the position

creation phase. We call this event a *point view*. In this article, we use a point view as an indicator of a user’s desire to access both pros and cons. Like point expansions, point views are not a precise measure of a user’s reading activity. On one hand, point views overestimate the amount of reading a user does: some users probably clicked through the points rapidly and simply skimmed the displayed points. On the other hand, point view data was only captured for points shown during the position creation phase, not on other pages where users could also scroll through points. Moreover, we did not capture point views by users before they logged in. Finally, we eliminated the first four pro and four con point views for each ballot measure a user viewed in order to account for points being automatically shown on page load. This is a conservative move, because the first four pro and con points displayed are the points most likely to be read. Even if a user diligently read the full text of all of the first four pro and con points, we would not capture this in the point view dataset. Indeed, more than half of all point inclusions were of the points displayed automatically on page load. To mitigate this problem, we did not filter out point views of points that the user actually included into his or her position.

Point views were filtered by eliminating (a) the first four pro and four cons displayed unless the points were included in the user’s position, (b) duplicate point views, and (c) point views by users who did not submit their position. This reduced the dataset from 29,508 to 10,609 views.

Operationalizing Engagement with Political Diversity

We operationalize engagement with political diversity in two ways: (a) *engaging tradeoffs*, the extent to which users engaged arguments in favor of and in opposition to a given measure, and (b) *engaging opposition*, the extent to which users engaged the arguments put forward by users who ultimately disagreed with them on whether a measure should be passed. These two forms of engagement are distinct. Engaging tradeoffs probes whether users expose themselves to arguments that both support and

oppose a measure; however, they might only be exposing themselves to arguments made by users who are like-minded in their stance. Engaging opposition examines engagement with content authored by users who took stances opposite that of the engaging user.

Engaging Tradeoffs

Our primary criterion of engaging tradeoffs considers whether a user engaged at least one pro and con per stance. The idea here is to identify cases in which users made at least a minimal gesture in the direction of diverse exposure. For each of the three data sources described in the previous section, we examine the following:

1. *Producing* pro and con points for a given ballot measure
2. *Considering* pro and con points within one's own list. We treat producing a point as considering a point here because we are primarily concerned with users constructing a position that reflects thought about both pros and cons.
3. *Accessing* pro and con points on a given ballot measure

Engaging Opposition

We use a similar criterion for examining whether a user engaged opposing viewpoints: if the user engaged at least one pro or con produced by a user who disagreed with them on the ballot measure. We ignore the strength of a user's stance: a user is a supporter (or an opponent) of a ballot measure regardless of whether he or she took a strong, moderate, or weak stance. We specifically examine the following:

1. Considering points that were written by users who took a stance opposite the includer's as part of one's position
2. Accessing points that were written by those taking an opposing stance

For engaging opposition, we do not look at point authorship because the user is not engaging the points that others have contributed. While some points do refer to other points other people have made, such data lie outside the scope of this article. It is also important to note that our interface does not enable users to discover the stance that an author of a point took on the measure, so users could not elect to read or avoid points based on the author's opinion of the measure.

To examine engagement of opposition, we needed to filter the data further so that we only included the interactions between users who took opposite stances. We therefore eliminated inclusions, views, and expansions of points where (a) the author of the point never submitted his or her position for the measure or took a neutral stance, (b) the point was one of 18 seeds posted by the LVG project team, or (c) the user who included the point took a neutral stance. After filtering, 1,753 inclusions, 7,330 views, and 479 expansions across 599 positions remained.

RESULTS

Engaging Tradeoffs

Production

In only 17.9% of the 224 instances where a user produced points for a measure did an author write more than one point for a single ballot measure. But of those 40 cases where a user did decide to produce more than one point, 45% of them wrote at least one pro and one con. Thus, nearly half of those who were motivated to write multiple points decided to write for both sides of the issue. Moreover, 6.5% of those users who authored only one point for a measure actually wrote a point that opposed the stance they ultimately took (12/184). Combining these measures, 13.4% of those who authored at least one point for a measure (30/224) wrote a point that balanced their ultimate stance. Producing both pros and cons, or authoring a point in opposition to one's own stance, serves as strong evidence that these users were considering the tradeoffs of a measure, though it does not

inform us about the degree to which they were engaging the arguments that other users were making.

Consideration

Of the 678 positions that included at least one point, 41.4% of them included both a pro and a con. If we discount the 148 positions that only included one point, 53.0% of the remaining positions included both a pro and a con. In other words, users considered both supporting and opposing arguments in nearly 50% of all positions taken.

Access

For the 768 positions in which a registered user requested to view more points, 68.2% accessed both pros and cons. For the 210 positions in which a registered user expanded at least one point on the respective measure, about 39.5% did so for at least one pro and one con.

Engaging Opposition

Consideration

Of the 599 positions where a user with a non-neutral stance included a point written by another user with a non-neutral stance, 33.7% (202) of them included a point written by someone who took an opposing stance. In other words, about one-third of all positions show evidence of cross-cutting engagement across lines of difference at the user level.

Access

In 692 positions, users who ultimately took a non-neutral stance accessed more points while composing their positions. In 67.5% of these cases, they viewed at least one point written by someone who took the opposite stance as they did. Moreover, of the 165 positions where a non-neutral-stance-taking user expanded a point written by another non-neutral-stance-taking user, 56.4% clicked “read more” on at least one point written by someone who took the opposite stance.

Co-Occurrence of Engagement Activities

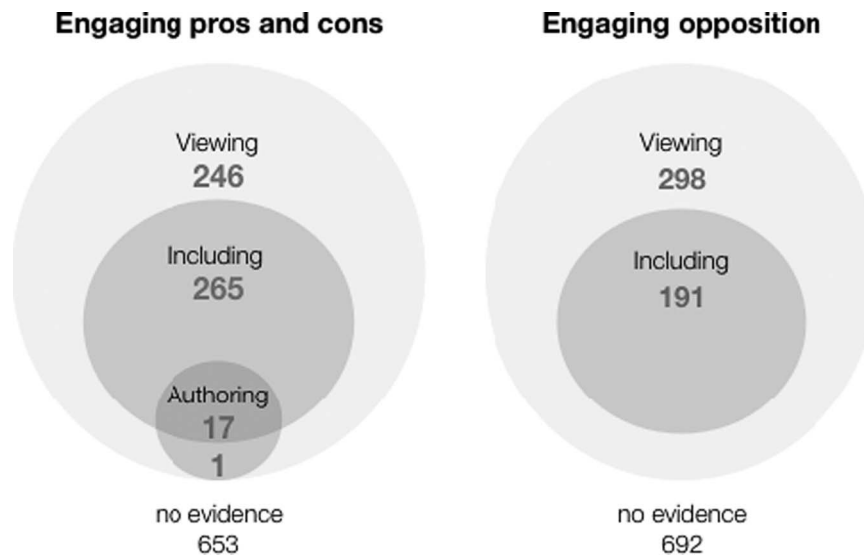
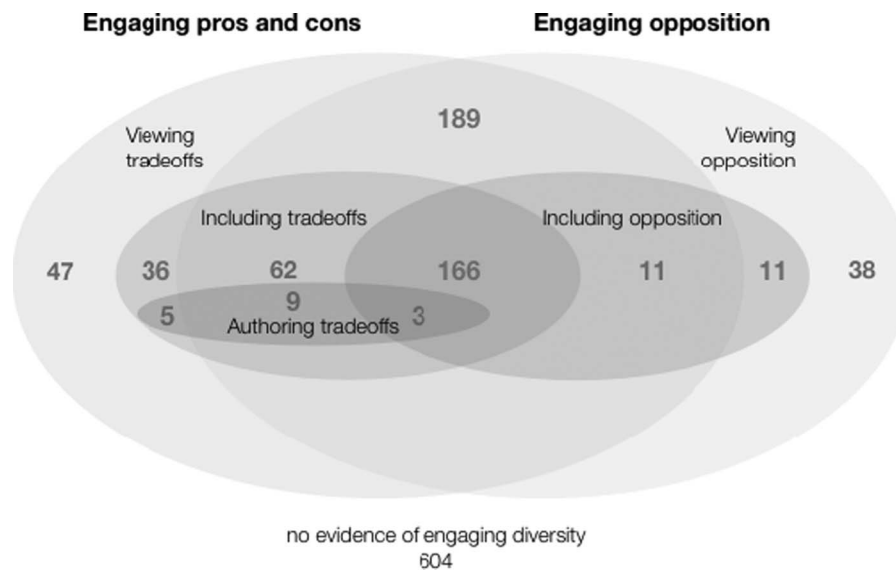
We have analyzed three different activities (authoring, including, and reading points) through two different lenses of diverse engagement: engaging tradeoffs and engaging opposition. Table 3 summarizes the findings thus far. But we do not yet have a sense of the extent to which these activities co-occur. Did those who authored pros and cons tend to neglect to include points written by other users? Did users who included pros and cons tend to also include points written by opposition, or just those who ultimately agreed with them on the measure? Here we examine the co-occurrence of these activities.⁹

The results are straightforward for the co-occurrence of tradeoff engagement (Figure 4). By definition, if people consider a point as part of their position, they have accessed it. We found that every user who authored both pros and cons also included pros and cons written by others, except one user who wrote points but submitted an empty position. It should be noted that there is no large dropoff in engagement activities

TABLE 3. Summary of Findings

	Metric	Value	Positions
Tradeoffs	Authors pro and con	13.40%	30/224
	Includes pro and con	41.40%	281/678
	Views pro and con	68.20%	524/768
	Expands pro and con	39.50%	83/210
Opposition	Including point of opponent	33.70%	202/599
	Views point of opponent	67.50%	467/692
	Expands point of opponent	56.40%	93/165

FIGURE 4. Co-occurrence of engagement activities, separated by engagement type.

FIGURE 5. Co-occurrence of all forms of engagement. This figure combines the two Venn diagrams shown in Figure 4. *Note:* This diagram is not to scale.

between access and consideration, but there is a dropoff between consideration and production. A similar picture emerges for engaging opposition, though the dropoff between access and consideration is more pronounced.

More interesting patterns emerged when comparing co-occurrence between engagement

of tradeoffs and engagement of opposition (Figure 5): 55.8% of positions that considered both pros and cons also included a point written by someone who took an opposing stance. While in some respects this may seem fairly large, it also demonstrates the distinction between engaging tradeoffs and engaging opposition:

TABLE 4. Co-Occurrence of All Forms of Diverse Engagement

Authoring pro and con	Including pro and con	Viewing pro and con	Including point of opponent	Viewing point of opponent	
100.0%	5.7%	3.2%	1.5%	2.5%	Authoring pro and con
	100.0%	52.5%	55.8%	44.0%	Including pro and con
		100.0%	32.9%	75.6%	Viewing pro and con
			100.0%	37.6%	Including point of opponent
				100.0%	Viewing point of opponent

Note: Percentage is $|\cap(a, b)|/|\cup(a, b)|$. This is a different view of the same data shown in Figure 5.

44.2% of those who included both pros and cons exclusively produced points written by those who agreed with them or were neutral on the issue (Table 4). Another interesting result is that users who authored both pros and cons considered a point written by the opposition into their own positions in only 17.6% of the cases.

DISCUSSION

The findings of this analysis of the Living Voters Guide suggest that users appropriated the feature set to engage with political diversity in multiple ways. While users probably could not avoid accessing a few points from both sides on each initiative, they could opt to read, consider, or produce points primarily from one side or from both. The data indicate that in a sizable minority of positions taken, users expressed active interest in both sides of the ballot measure. In terms of point production, the majority of users only wrote one point per initiative, indicating that this was not a common activity overall. But the fact that 45% of users who authored more than one point on an issue did so for both sides demonstrates that content production offers valuable cross-consideration opportunities for prolific contributors. The other two engagement types appeal to a much wider base: over half (53%) of stances that consider more than one point combine points from both sides of the issue, and in about 70% of stances the user chose to access more points from both sides.

Not only did LVG users engage with a wide range of viewpoints, they also interacted directly with those who took positions opposite their own. These two behaviors are less similar than they might appear to be. There may be significant differences between the kinds of points that are produced by strong partisans and those added by undecided citizens in the process of making up their own minds. Moreover, citizens have been known to rely on group identity cues to direct their political attentions, which can lead to the views of opposing groups being ignored (Iyengar & Hahn, 2009). But many LVG users did engage with the ideas of users who took stances opposite their own. Over one-third (33.7%) of point-considering stances considered points by dissenting others, over half (56.4%) chose to expand such points, and two-thirds (67.5%) requested to view more points. Taken together, these metrics show that LVG users embraced political diversity in terms of both arguments and the stances of other users.

The distinct measures of diverse consideration co-occurred to a notable degree. Each measure was cumulative—including points from both sides meant that a user also accessed points from both sides, and all users who produced points for both sides also considered and accessed from both sides. Of all users who partook in at least one form of tradeoff-based engagement (N = 529), 46.5% only accessed points from each side, 50% accessed and considered points from both sides, and 3.2% produced, considered, and accessed points from both sides.

Among all who engaged with opposing users ($N = 489$), 60.9% only looked at opposing points, while 39.1% also included opposing points in their positions. In the former case, engaged users chose two or more forms of engagement in a majority of stances, and in the latter case nearly 40% of stances acknowledged the other side in more than one way. As one might well expect, participation dropped off somewhat as the required amount of effort increased. But it is encouraging that when offered multiple opportunities to engage with foreign political ideas, many users chose more than one.

The results of this study hold strong implications for the dynamics of selective exposure. To wit, when certain citizens are offered the opportunity to engage with opposing viewpoints on statewide issues, they tend to do so. And they do so not only by choosing to expose themselves to additional points from each side, but also by considering these points in the context of their issue-relating thinking and producing points of their own. The purpose of the qualification that these outcomes only apply to certain citizens is to note that the patrons of the LVG comprised a self-selected, non-random group—one that evidently found the prospect of cross-cutting engagement compelling enough to continue to use the site. The success of the LVG (as measured by the metrics of diverse engagement used in this article) further supports Munson and Resnick's (2010) call to design online platforms specifically for diversity-seeking citizens, as opposed to trying to induce such behavior in hardcore ideologues through technological means. For the former, selective exposure appears to be more about finding a balance between opinions both for and against each issue, because this is what these citizens are interested in. Understanding the needs and desires of this diversity-seeking contingent of the populace should become a key priority for research not just on selective exposure, but on the ways in which people produce and consume political information more generally.

Limitations

In spite of its contributions, this study carries several limitations that bear acknowledgment.

First, it is important to note that there are temporal dependencies in all of this data that we are not explicitly controlling for, namely that there were strictly fewer points available during earlier stages of the LVG deployment (we seeded a single pro and con for each measure, and let it grow from there). However, we believe that we reached a saturation of point coverage fairly early, as described earlier.

We cannot know direction of causality between issue stance and engagement with diverse perspectives. On one hand, users may have come to the site with firm beliefs on one or more issues and avoided writing, including, or reading points from the other side. In this case, the presence of pre-existing issue stances would exert a strong influence on diverse engagement. But it might also be the opposite: some might have come to the site without strong beliefs on a given issue, become captivated by the pro arguments and embraced the pro position. In this case, the degree of diverse engagement mediated the strong conviction expressed in their stances. Both of these influence vectors are probably in play, but we cannot determine to what extent because we chose not to ask about pre-existing issue stances beforehand in order to make the LVG seem less clinical.

Finally, due to space limitations, we cannot present all the data that are pertinent to contextualizing the results presented in this article. Here we briefly describe some of these data. First, there is some (apparently inconsistent) variation in how users engaged political diversity based on which ballot measure was being considered. We have yet to find a satisfying explanation for this variation. Second, not all pro and con points contain comparable content. Some contain factual claims. Some have more information. Some are better written. Some make emotional appeals. Some rally ideologically, while others try to be persuasive to all. Some echo high principles, while others cite specific details. These differences have real consequences: there is a skewed distribution of inclusions across the points. Our analysis does not take this variation into account when considering cross-cutting engagement. Future studies will address these questions via content analysis of the points themselves.

CONCLUSION

The Living Voters Guide represents a promising new direction among attempts to improve the quality of online political discussion. Throughout this article, we have defined “quality” in terms of diverse engagement—a set of measurable online behaviors that indicate attention to both the supporting and the opposing sides of a given issue. We conceived of diverse engagement as a more comprehensive alternative to selective exposure, in which individuals favor information sources that accord with their pre-existing opinions. By facilitating diverse engagement, the LVG provided Washington citizens with the opportunity to make political choices that were informed by a broader scope of considerations than may have been the case otherwise. In this article, we examined how users took advantage of three key communication behaviors for engaging diversity—producing, considering, and accessing political arguments—finding what we believe to be significant and meaningful usage.

This research speaks to broader debates about the implications of the Internet for politics. Some scholars hold that the Internet has one overarching effect on or use for politics (e.g., Gladwell, 2010; Hindman, 2009; Kerbel, 2009; Margolis & Resnick, 2000), downplaying the fact that it can support a wide variety of political interactions. These perspectives tightly circumscribe our imagination about the scope of online politics by focusing on popular applications such as social networking sites at the expense of alternative technologies. Our work emphasizes that the Web is what we make it, and while its potential has limits, its most prominent sites do not exhaust them. The fact that deliberation tends not to flourish spontaneously online should not lead us to conclude that online deliberation is a lost cause; rather, it should (among other things) prompt us to design effective outlets for diversity-friendly publics.

NOTES

1. The raw data used in this study will be placed in the JITP dataverse for future replication.

2. This last metric is infamous for its use in a series of classic survey-based studies that interpreted attitude inconsistency as an indicator of meaningless “nonattitudes” (Converse, 1964, 1970). We agree that this interpretation is correct with regard to surveys, the results of which are regularly distorted by citizens’ desire not to appear ignorant to survey takers (Zaller, 1992). However, we argue that inconsistency in citizens’ opinions as expressed in their own words more likely represents the process of making up one’s mind based on a salient set of conflicting concerns. Specifically, the real-time imperative to respond to a live survey taker is absent online, and people with nonattitudes on a particular issue can comfortably abstain from expressing themselves on it.

3. Online deliberation researchers have a long tradition of evaluating the usage results of their own designs; indeed, this is the case for all of the articles cited in this paragraph. The underlying rationale for this is that there is no fundamental difference between empirical data generated from one’s own software system and any other kind of data. We further defend our evaluation of the LVG by noting that forbidding this kind of work would deal a serious blow to the enterprise of designing for civic engagement, as recruiting outside evaluators who are both qualified and willing to collaborate is prohibitively difficult. All of the research procedures described here were reviewed and approved by the Institutional Review Board of the University of Washington.

4. 36.6% of our traffic was direct (people typing <http://www.livingvotersguide.org> into their browsers), 35.1% from referring sites (such as a link from Facebook or *Seattle Times*), and 28.3% from search engines.

5. Average = 2.3 points per author, median = 1, max = 10.

6. Average = 38.2 points per measure, median = 29, min = 11, max = 113.

7. From these, we eliminated 273 inclusions of 171 points by 79 users because the user did not submit a position on the ballot measure.

8. The seed points did not include a long description.

9. In this analysis, we do not include point expansions because of difficulties in aligning the dataset with the other datasets. For example, expansions were only collected for the latter half of the deployment.

REFERENCES

- Adamic, L. A., & Glance, N. (2005). The political blogosphere and the 2004 US election: Divided they blog. In *Proceedings of the 3rd International Workshop on Link Discovery* (pp. 36–43). New York: ACM.
- Alonzo, M., & Aiken, M. (2004). Flaming in electronic communication. *Decision Support Systems*, 36(3), 205–213.

- Barber, B. R. (2003). *Strong democracy: Participatory politics for a new age*. Berkeley: University of California Press.
- Bennett, W. L., & Iyengar, S. (2008). A new era of minimal effects? The changing foundations of political communication. *Journal of Communication*, 58(4), 707–731.
- Bohman, J. (2000). *Public deliberation: Pluralism, complexity, and democracy*. Cambridge, MA: MIT Press.
- Blumler, J. G., & Kavanagh, D. (1999). The third age of political communication: Influences and features. *Political Communication*, 16(3), 209–230.
- Brundidge, J., & Rice, R. E. (2008). Political engagement online: Do the information rich get richer and the like-minded more similar? In A. Chadwick & P. N. Howard (Eds.), *Routledge handbook of internet politics* (pp. 144–156). New York: Routledge.
- Dahl, R. A. (1989). *Democracy and its critics*. New Haven, CT: Yale University Press.
- Dahlberg, L. (2001a). Democracy via cyberspace: Mapping the rhetorics and practices of three prominent camps. *New Media & Society*, 3(2), 157–177.
- Dahlberg, L. (2001b). The Internet and democratic discourse: Exploring the prospects of online deliberative forums extending the public sphere. *Information, Communication & Society*, 4(4), 615–633.
- Entman, R. M. (1989). *Democracy without citizens: Media and the decay of American politics*. New York: Oxford University Press.
- Farrell, H., & Drezner, D. W. (2008). The power and politics of blogs. *Public Choice*, 134(1), 15–30.
- Freelon, D. G. (2010). Analyzing online political discussion using three models of democratic communication. *New Media & Society*, 12(7), 1172–1190.
- Galston, W. A. (2003). If political fragmentation is the problem, is the Internet the solution? In D. M. Anderson & M. Cornfield (Eds.), *The civic web: Online politics and democratic values* (pp. 35–44). Lanham, MD: Rowman & Littlefield.
- Garrett, R. K. (2009). Politically motivated reinforcement seeking: Reframing the selective exposure debate. *Journal of Communication*, 59(4), 676–699.
- Gentzkow, M., & Shapiro, J. M. (2010). *Ideological segregation online and offline*. NBER Working Paper No. 10–19. Chicago: The University of Chicago School of Business.
- Gladwell, M. (2010). Small change: Why the revolution will not be tweeted. *The New Yorker*. Retrieved January 12, 2011, from http://www.newyorker.com/reporting/2010/10/04/101004fa_fact_gladwell?currentPage=all
- Graf, J., & Aday, S. (2008). Selective attention to online political information. *Journal of Broadcasting & Media*, 52(1), 86–100.
- Gutmann, A., & Thompson, D. F. (1996). *Democracy and disagreement*. Cambridge, MA: Belknap Press.
- Habermas, J. (1989). *The structural transformation of the public sphere: An inquiry into a category of bourgeois society*. Cambridge, MA: The MIT Press.
- Hargittai, E., Gallo, J., & Kane, M. (2008). Cross-ideological discussions among conservative and liberal bloggers. *Public Choice*, 134(1–2), 67–86.
- Hindman, M. S. (2009). *The myth of digital democracy*. Princeton, NJ: Princeton University Press.
- Iyengar, S., & Hahn, K. S. (2009). Red media, blue media: Evidence of ideological selectivity in media use. *Journal of Communication*, 59(1), 19–39.
- Iyengar, S., Hahn, K. S., Krosnick, J. A., & Walker, J. (2008). Selective exposure to campaign communication: The role of anticipated agreement and issue public membership. *Journal of Politics*, 70(1), 186–200.
- Iyengar, S., Luskin, R. C., & Fishkin, A. J. (2004, April). *Deliberative public opinion in presidential primaries*. Presented at the Voice and Citizenship Conference, University of Washington, Seattle, WA.
- Jankowski, N. W., & van Os, R. (2002, October). *Internet-based political discourse: A case study of electronic democracy in Hoogeveen*. Presented at the Euricom Colloquium: Electronic Networks & Democracy, Nijmegen, the Netherlands.
- Janssen, D., & Kies, R. (2005). Online forums and deliberative democracy. *Acta Politica*, 40(3), 317–335.
- Johnson, T. J., Zhang, W., & Bichard, S. L. (2011). Voices of convergence or conflict? A path analysis investigation of selective exposure to political Websites. *Social Science Computer Review*, 29(4), 449–469.
- Karpf, D. (2008). Understanding blogspace. *Journal of Information Technology & Politics*, 5(4), 369–385.
- Kelly, J., Fisher, D., & Smith, M. (2005, May). *Debate, division, and diversity: Political discourse networks in USENET newsgroups*. Presented at the Online Deliberation Conference, Stanford University, Stanford, CA.
- Kerbel, M. (2009). *Netroots: Online progressives and the transformation of American politics*. London: Paradigm Publishers.
- Kim, Y. M. (2009). Issue publics in the new information environment. *Communication Research*, 36(2), 254–284.
- Knobloch-Westerwick, S., & Meng, J. (2009). Looking the other way. *Communication Research*, 36(3), 426–448.
- Kobayashi, T., & Ikeda, K. (2009). Selective exposure in political web browsing: Empirical verification of “cyber-Balkanization” in Japan and the USA. *Information, Communication & Society*, 12(6), 929–953.
- Lawrence, E., Sides, J., & Farrell, H. (2010). Self-segregation or deliberation? Blog readership, participation, and polarization in American politics. *Perspectives on Politics*, 8(1), 141–157.
- MacKuen, M., Wolak, J., Keele, L., & Marcus, G. E. (2010). Civic engagements: Resolute partisanship or reflective deliberation. *American Journal of Political Science*, 54(2), 440–458.

- McChesney, R. W. (2004). *The problem of the media: U.S. communication politics in the twenty-first century*. New York: Monthly Review Press.
- Margolis, M., & Resnick, D. (2000). *Politics as usual: The cyberspace "revolution."* Thousand Oaks, CA: Sage Publications.
- Muhlberger, P. (2005). The virtual agora project: A research design for studying democratic deliberation. *Journal of Public Deliberation*, 1(1), 5–13.
- Munson, S. A., & Resnick, P. (2010). Presenting diverse political opinions: How and how much. *Proceedings of the 28th International Conference on Human Factors in Computing Systems* (pp. 1457–1466). New York: ACM.
- Mutz, D. C. (2006). *Hearing the other side: Deliberative versus participatory democracy*. New York: Cambridge University Press.
- Papacharissi, Z. (2004). Democracy online: Civility, politeness, and the democratic potential of online political discussion groups. *New Media & Society*, 6(2), 259–283.
- Price, V., Cappella, J. N., & Nir, L. (2002). Does disagreement contribute to more deliberative opinion? *Political Communication*, 19(1), 95–112.
- Price, V., Nir, L., & Cappella, J. N. (2006). Normative and informational influences in online political discussions. *Communication Theory*, 16(1), 47–74.
- Sears, D. O., & Freedman, J. L. (1967). Selective exposure to information: A critical review. *Public Opinion Quarterly*, 31(2), 194–213.
- Schuler, D. (2009). Online civic deliberation with E-liberate. In T. Davies & S. Gangadharan (Eds.), *Online deliberation: Design, research, & practice* (pp. 293–302). Stanford, CA: CSLI Publications.
- Shanks, B., & Dahlstrom, D. B. (2009). Parliament: A module for parliamentary procedure software. In T. Davies & S. Gangadharan (Eds.), *Online deliberation: Design, research, & practice* (pp. 303–308). Stanford, CA: CSLI Publications.
- Sunstein, C. R. (2007). *Republic.com 2.0*. Princeton, NJ: Princeton University Press.
- Thaler, R., & Sunstein, C. (2009). *Nudge: Improving decisions about health, wealth and happiness*. New York: Penguin.
- Thompson, D. F. (2008). Deliberative democratic theory and empirical political science. *Annual Review of Political Science*, 11(1), 497–520.
- Wilhelm, A. G. (1999). Virtual sounding boards: How deliberative is online political discussion? In B. N. Hague & B. D. Loader (Eds.), *Digital democracy: Discourse and decision making in the information age* (pp. 153–178). New York: Routledge.
- Wojcieszak, M. E., & Mutz, D. C. (2009). Online groups and political discourse: Do online discussion spaces facilitate exposure to political disagreement? *Journal of Communication*, 59(1), 40–56.
- Zaller, J. (1992). *The nature and origins of mass opinion*. New York: Cambridge University Press.