# **Usability of County Election Websites**

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**Abstract.** How well do counties answer voters' questions about upcoming elections? Other studies have reviewed state election department websites [1, 2], but voters vote at the county or town level. How do they get their questions answered? Assuming that one source of election information might be local —the website for the county clerk or registrar—we cataloged 147 county websites, and then conducted a large-scale, distributed usability test with 41 voters from across the U.S. using their own county's website. We sought to learn about what local election jurisdictions were offering for content, what terminology they used to describe it, and how useful and usable that content was to voters —just in time for the 2012 U.S. Presidential election.

Keywords: Usability methods and tools, voting, elections, websites.

# 1 Introduction

Because most elections in the United States are conducted at the county level, we decided to do a broad examination of what is offered on county election websites. We also wanted to learn what questions voters had, and where they look for answers. So we conducted our project in 2 phases. In Phase 1, we cataloged the links, headings, and graphics on the "home" page of 147 county election websites. In Phase 2, we conducted 41 remote, moderated usability test sessions with voters trying to find answers to their own questions about elections on their local county or town website.

The results raise a number of questions about what county election departments see as voter education or information versus what voters need information about, where they look for it, and what terms they use to describe it. Here we focus on how the usability testing data intersect with the insights we gained from the site catalogs.

# 2 Methods

### 2.1 We Conducted the Project in 2 Phases: Cataloging and Evaluation

In the first phase of the research, we wanted less to evaluate the sites—we actively worked to create a method that would prevent us from making judgments about the usability or lack thereof of the sites—than to understand the landscape.

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In the second phase, we hoped that conducting usability tests [3] would help us understand whether there was a gap between what county websites were offering and what voters were asking. And if there was a gap, we wanted to know what it might be.

## 2.2 Phase 1: Cataloging 147 County and Town Websites

To understand the landscape of county election websites in the U.S. [4, 5], the first phase of the project was collecting links, headings, and graphics from the "home" page of the election department or election section of the county or town site.

Our sample of websites started at 200, which represented, based on U.S. census data from 2010, the largest counties, the smallest counties, counties with the highest and lowest population, counties that were the most densely populated and the least densely populated, and counties that had the largest and smallest minority populations. There was some overlap in this sampling, which brought it down to 174 counties. We eliminated 27 counties because they either had no website at all or the election website was minimal. We cataloged at least one website from all 50 states and the District of Columbia. Our total sample was 147.

After reviewing a few sites, we constructed a simple spreadsheet that we could use to document what words county election websites used in their main information architecture, and where those words showed up on the "home" page of the election department for the county or town. The format of the template echoed typical layouts of websites.

We provided our 16 volunteer researchers with training on how to catalog sites, and then assigned each person at least 5 sites. We randomized the assignments by alphabetizing the county names and then made assignments as volunteers came on to the project.

#### 2.3 Phase 2: Conducting 41 Remote Moderated Usability Test Sessions

We set up a form in SurveyMonkey to collect the usability test data that included a script for session moderators. We set up a second SurveyMonkey form for the voter participant that listed the 20 questions we thought voters might ask about elections.

Volunteer test moderators, of which there were 9 in addition to 3 lead researchers from the project, all attended a 1-hour training session. All sessions were conducted remotely from the participants, using screen-sharing services such as GoTo Meeting.

Moderators asked voters what questions they had about the election, and noted each. Then the moderator directed the participant to find their county website and then to try to find the answers to those questions.

Moderators recorded whether voters found the answers. They also recorded how the voter got to the site, as well as voters' comments about what worked well and what did not work well about the site. Sessions were scheduled to take 30 minutes. If there was time remaining in the session after voters answered their own questions, moderators asked voters to try to find answers to as many more questions as they could in the time available. Participants opted in to the study through "snowball" recruiting or listings in the Volunteering sections of craigslist.org. They were mostly white, and mostly female. All were active, registered voters.

# 3 Results

Of the 147 websites we cataloged in Phase 1, 110 were from majority-white counties (75%). The rest—37 (25%)—were from minority counties. 41 sites were from what we called "huge" counties, that is, counties with populations of at least 750,000 (28%).

We were very interested in learning how common it is for counties, parishes, boroughs, and towns to have their own election websites. So in addition to cataloging the home pages of our sample, we also documented the URLs for all the voting jurisdictions we could find a web address for. We identified 3,057 election jurisdictions. Fortunately, although 966 jurisdictions did not have websites, 94% of Americans live in a county where there is an official website that provides election information.

We cataloged 8,327 items from our sample of election department websites. Of the items cataloged, 73% were links; the rest were headings or graphics.

## 3.1 Where Voters Looked for Information

As we started each usability test session, we asked participants what questions they had about the November 6, 2012 election and where they had tried to find answers.

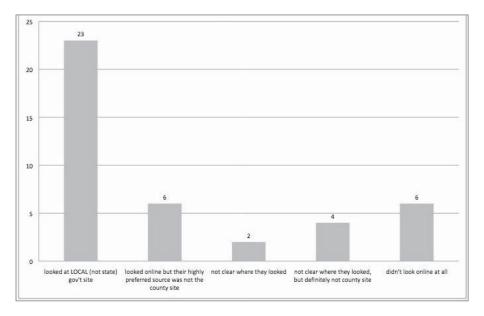
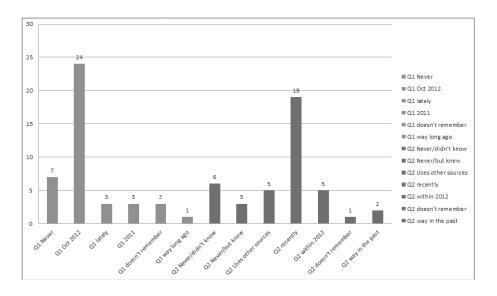


Fig. 1. Number of participants who looked at government websites for election information

Then we asked them where they had looked for the answers to their questions. Just under 15% of participants (6) said they had not looked online at all for their answers. A few of those said they had looked in their local newspaper or had other sources. The rest of the participants had all spent some time online looking for answers to their questions about the upcoming election. About 56% of the participants (23) said they had been to a local government site; none had been to a state website about elections before the usability test sessions. During the sessions, a few participants ended up on state sites cross-linked from county or town sites.

We also asked participants if they had ever been to their county website and if they had ever been to the election department website for their county. Of our 41 participants, 24 said that they went to their county's website in October 2012. Five participants said that they had looked at the county site for elections information "in the last year."



**Fig. 2.** Visits to local government websites (blue bars to the left) and visits to local *elections* websites (red bars to the right)

#### 3.2 The Questions Voters Asked

Working from a list of 20 questions, we asked participants to check off all of theirs about the November 6, 2012 Presidential election. See Table 1 for the top 5 questions.

Question	Number of participants
What's on the ballot?	28 (68%)
What's the deadline to apply for an absentee ballot?	21 (51%)
What do I have to do to get an absentee ballot?	18 (44%)
When is my absentee ballot due?	18 (44%)
Where do I go to vote?	17 (41.5%)

#### **Table 1.** Top 5 questions asked by participants

### 3.3 Voters' Questions Centered on the Ballot

In our study, the most-asked question about the U.S. Presidential election in November 2012 was, "What's on the ballot?" (See Table 2.) People wanted to know what the election was about before they committed to voting and the other steps involved.

The act of asking this question appears to be a straightforward preparation step for getting ready to go to the polls. But we think, based on the other questions voters in our study asked, and the comments they made while they tried to find answers to their questions on county and town election websites, that answering this question might be a main gate to participating in an election.

We were slightly surprised by this finding. Given the attention in the media about issues of voter ID, finding polling places, and voter registration, we thought those questions would be the main questions voters had. But they weren't. It is much easier than ever before to find out where your polling place is online. Several states have implemented online voter registration. So, answers are more readily findable for some questions. Participants asked questions related to these topics less often than others. *Do I need to show ID to vote* ranked 7th and *What happens if I don't have ID* ranked 9th; *What's the deadline to register* to vote ranked 8th.

#### 3.4 The Term "Sample Ballot" Was Problematic

Participants wanted to know what was going to be on the ballot. Sites often erred either on the side of showing no ballot at all, or embedding a personalized ballot within a wizard for looking up registration and other information for a voter. Of the 147 counties we cataloged, 51 of them (35%) had a link called "sample ballot." But to voters, "sample ballot" sounds provisional or simply illustrative rather than authoritative. However, election officials intend it to be authoritative. Because of the mismatch between intentions, participants didn't expect to have to provide personally identifying data to get to see what they were going to vote on.

Questions	Answered vs. asked	Key word	Percentage of sites on which the key word appeared on the home page
What's on the ballot	17 of 28	Ballot	66% - "Ballot"
Deadline to apply for absentee ballot	12 of 21	Absentee	63% - All mail options 56% - "Vote by Mail," "Absentee" or "Mail Voting" 52% - "Absentee" 34% - "Application" 14% - "Deadline"
When is absentee ballot due	13 of 18	Absentee	63% - All mail options 56% - "Vote by Mail," "Absentee" or "Mail Voting" 52% - "Absentee" 14% - "Deadline"
What do you have to do to get absentee ballot	12 of 18	Absentee	63% - All mail options 56% - "Vote by Mail," "Absentee" or "Mail Voting" 52% - "Absentee" 34% - "Application" 15% - "Vote by Mail," "Early Voting," "Convenience Voting" or "Vote Center"
Where to vote	11 of 17	Polling Place	63% - "Map" 51% - "District" 39% - Precinct 39% - "Polling Place" 34% - "Find" 18% - "Where"
Who are your representatives Need to show ID to vote	6 of 17 11 of 16	Representatives ID	5% - "Who" 4% - "Representative" 16% - "ID" 7% - "Voter ID" or "Voter Identification"

Table 2. Cataloging	and usability	comparison	ordered by	Most Asked

Questions	Answered vs. asked	Key word	Percentage of sites on which the key word appeared on the home page
How to vote if you can't vote on Election Day	6 of 10	Absentee	63% - All mail options 56% - "Vote by Mail," "Absentee" or "Mail Voting" 52% - "Absentee" 34% - "Application" 15% - "Vote by Mail," "Early Voting," "Convenience Voting" or "Vote Center" 1% - "Mail Voting"
What happens if I don't have ID	4 of 9	ID	16% - "ID" 7% - "Voter ID" or "Voter Identification"

 Table 2. (Continued)

## 3.5 County Websites Are Organized around Processes

Elections from the point of view of administrators are all about process. The first step for a voter is to register. Then they look for their polling place. And then they vote. Election websites are arranged accordingly.

Position: average row	Trigger words for Most Asked questions
9, 11 or 12	registering to vote
11 – 14	voting options [if there are multiple; OR early voting, OR absentee voting, OR voting by mail]
12 – 14/21	where to vote
14	how to vote
15-17	voter ID
15 – 21/18	current office holders
16	military and overseas voters
18 - 23	the ballot ["sample ballot"]

Table 3. Key words on election websites

In the catalog spreadsheets, the position roughly approximates the position on the actual site. Typically, the top of the site has persistent navigation, and then a banner that shows the county name, often a department, division, or title name and a Search box.

Based on position on the site, the most important pieces of information on a county election website are the name of the county or town, and then that it is the elections website. That information takes up roughly the first 8 rows in our cataloging template. We found it interesting that the meat of the content voters need started around row 9 on average (Table 3). This is quite low on the page, considering how much is known about "banner blindness" in website design. By the time a voter scans to row 23, that content may be below the scrolling point ("the fold") or the voter may even have given up finding it. The main content on County websites generally fits the order listed in Table 3.

This gap between how election departments think about elections—as a process—and how voters approach elections—focused on what is on the ballot—revealed itself in the usability testing results. Voters' concepts (their mental model [6]) related to elections are highly ballot-centric. That is, voters are less centered on the ballot as designed object than "what am I voting about?" This is the Why, a thread that continues from pre-preparation through preparation and voting, and on into post-election:

- Voters wanted to know what they were voting for. We also had several participants who looked for information on the current representatives and districts.
- Then voters wanted to know what's on their specific ballot. We interpret this to mean that there's less desire for an exact facsimile (although we think that serves a purpose of its own) than a clear list of what you're voting for. Often the information about what's on the ballot is hidden in a wizard or widget that requires the voter to provide address and other data. Several participants were leery of providing their names (or date of birth), or creating a profile (which several of the tested sites required) to get information about what was on their ballot. And so, some voters looked to third-party sites (often non-partisan sites) for this information. They seem highly motivated to get it.
- Then, post-election, voters looking for results wanted "the outcomes of the things I voted on" rather than "vote counts for my county." There is a whole other audience of analysts and reporters for the latter question, but voters complained when a county didn't provide the ultimate result of, for example, a statewide initiative.

Next we have the logistics, or the How. Participants had many questions about the details of everything surrounding that act of voting.

- Terminology around absentee ballots, early voting, vote by mail, and so on tripped up several people. "Absentee ballot" seems to be the older term that people know, even if it is not accurate for their state's exact practices anymore.
- Voters were uncomfortable with general statements like "mail ballots are due 5 days before an election"—they wanted to know exactly what "due" meant (postmarked or arrived) and they wanted the dates for this particular election spelled out for them. Calendars for the current election cycle were well received. In addition, details around options for delivering completed ballots were often hard to find.

- Even for Election Day in-person voting, participants looked for information on what happens besides the voting. Even in states without voter ID laws, participants (who had presumably heard about some of the controversies elsewhere) looked for reassurance that they did not need ID. Voters in states that had recently begun requiring ID looked for specifics, and voters in states that had overturned ID laws at the last minute found outdated information stating that ID was required.
- Finding polling places also fell into this category—voters had several different desires from the standard "what's the right place to go vote in person" to "where can I drop off a mail ballot near my work on Election Day." The polling place look-up wizards were fairly inflexibly optimized for the former case.

The success of the project, in large part, comes from the many contributors to the data collection. Careful piloting of the scripts and instruments gave us insights about what we could feasibly give volunteers to do. Indeed, our massively distributed research, which generated a massive dataset, also needed massive collaboration. Fortunately, the volunteer co-researchers were keen to contribute to the project.

As we look at the results, we do wonder if the findings might be different if we did the study at a different time. We did our research just before a presidential election. What might we have learned if we conducted a similar study in a lull between elections? Might information about registering to vote be more important to voters then?

# 4 **Recommendations**

It is crucial that the information architecture of local government election websites reflects the centrality of the content of the ballot. Providing this content on its own, with minimal information required from the voter, and then interlinking to content about voting methods, registering, deadlines, and finding polling places will better match the mental model voters have of elections. Avoiding terms such as "sample ballot," and asking questions in headings and answering them plainly and clearly will make it more likely that voters will find the answers to their questions and cast a ballot.

Ideally, a local government wants to establish that this is a government website for elections and that this is the authoritative source of information. It should also plainly state when the next election is. We strongly urge webmasters to answer these questions the front page of their websites:

• What's on the ballot?

This includes what election officials consider a "sample ballot." It should show a facsimile of the ballot voters will use.

- How do I vote if I can't go to the polls on Election Day?
- This covers absentee voting, early voting, vote centers, vote by phone, and any other options.
- Who are my representatives now, and what districts am I in?
- Where do I vote?

• Do I have to show ID to vote?

This includes what kind of ID is acceptable, and what happens if you show up without ID if the answer is that you must have ID to vote.

Our recommended information architecture might include short labels/links:

- the ballot [not "sample ballot"]
- voting options [if there are multiple; OR "early voting," OR "absentee voting," OR "voting by mail"]
- current office holders
- where to vote
- voter ID
- registering to vote
- what to expect
- how to vote
- military and overseas voters
- election results

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# References

- 1. Pew Election Initiatives: Being Online is Not Enough: State Elections Web Sites (2008), http://www.pewtrusts.org/our\_work\_report\_detail.aspx?id=45170
- 2. Pew Election Initiatives: Being Online Is Still Not Enough (2011), http://www.pewstates.org/research/reports/being-online-isstill-not-enough-85899376525
- 3. Rubin, J., Chisnell, D.E.: Handbook of Usability Testing, 2nd edn. Wiley, Indianapolis (2008)
- 4. Hale, K., Mosberger, K.: E-Government As A Tool for Reform In Election Administration. In: Election Reform Agenda Conference (2009)
- Huang, Z.: E-Government Practices at Local Levels: An Analysis of U.S. Counties' Websites. Issues in Information Systems Vii(2) (2006)
- 6. Wikipedia: Mental model, http://en.wikipedia.org/wiki/Mental\_model