

What if anyone could vote on any device, anywhere, at any time?

The Anywhere Ballot digital ballot template

Testimony to the Presidential Commission on Election Administration

20 Sep 2013

Drew Davies, Oxide Design Co. / AIGA Design For Democracy

Commissioners, thank you for the opportunity to address you today.

My name is Drew Davies. I'm the owner of Oxide Design Co. and the national design director for AIGA Design For Democracy.

I believe deeply in the right of every American citizen to clearly and easily cast their ballot as they intend. To that end, I've been working for the past seven years on the usability and design of ballots and the voting process. Much of that work has culminated in what we call the Anywhere Ballot.

The ultimate question regarding accessible elections is: *What if anyone could vote on any device, anywhere, at any time?* The Anywhere Ballot is our answer to that question. It's a digital ballot-marking interface. It's responsive, accessible, and open-source. Anywhere Ballot is a digital ballot template – using current web standards – that voters can use to mark a ballot on their own electronic device, using their own, familiar, assistive technology. A voting system using the Anywhere Ballot template would present a ballot to the voter on their own device, when and where they chose, up to the close of polling on Election Day.

My comments today will outline the research and development of the Anywhere Ballot, which are rooted in improving the information design and usability of ballots. I'll complete my testimony by outlining how the Anywhere Ballot can be implemented.

By starting with the most challenging situations and working towards the center, we have already improved ballot usability across many audience groups by optimizing and clarifying ballot design and implementing "plain language" standards. Future usability testing with additional groups will allow us to address an even broader range of accessibility needs. Our work on paper ballots lays the foundation for building an Anywhere Ballot interface that's the most clear, usable ballot solution for *all* voters.

The Anywhere Ballot is unique and effective because of our development method, combining research, best practices design, and extensive usability testing.

Key team members were involved in seminal ballot design projects over the last 10 years that helped us identify what it is like for people to actually use ballots. Our project team also included researchers with experience designing online information and interactions. In combination, the key team members have worked on hundreds of printed forms and digital interfaces with a huge range of user groups, which gave us a head start developing the Anywhere Ballot.

We drafted our first ballot prototype based on insights from earlier research. Of particular importance to our work were two reports. The first was AIGA Design for Democracy's report to the U.S. Election Assistance Commission, "Effective Designs for the Administration of Federal Elections", published in 2007. The second, "NIST IR 7556 Report: Language of Instructions on Ballots", was published by the National Institute of Standards and Technology in 2008.

We employed rapid, iterative usability testing to measure the accuracy and performance of ballot prototypes. In a usability test, the design team observes while a user interacts with a prototype, without training or helping the user.

Our design team incorporated design changes at the end of each individual usability study session in response to observations during that session. Those new design changes were then tested during the next session. Iterative testing of our ballot prototypes revealed flaws in the design that we could modify immediately.

The usability testing participants – some of whom have low literacy, some of whom have cognitive issues – helped us unlock many of the challenging puzzles of creating a digital ballot. Thirty-three sessions with real people revealed moments of discovery that clarified language and interaction in the two rounds of prototype testing we conducted. Based on this testing, we discovered that the Anywhere Ballot is a meaningful tool for voters with high and low literacy, and voters with mild cognitive issues.

In addition to simplifying ballot design, the team also focused on incorporating the concept of plain interaction; that is, paring the ballot design down to only the essential, fewest steps to complete the action of voting. Plain interaction allows maximal focus on the voter's immediate interaction with the ballot. Much of this design project was about taking things away rather than adding them, to make voting easier.

Our focus on designing plain interaction means that it is much easier for voters to infer what to do from how the design looks and behaves. In other words, it's intuitive. *When we were able to pare the language, interaction, and steps to the essentials, voters were effective and efficient in marking their ballots. They were satisfied that they had voted the way they had intended.*

The Anywhere Ballot is important because it defines a single “best practices” ballot interface on which everyone can vote.

We envision a time when all voters can use the same voting system when they get to the polling place, no matter the location, and even vote remotely. Currently, election officials and poll workers are trained on at least two different systems across the United States. People with disabilities who make it to polling places are segregated, voting on a different voting system from

people who don't identify as disabled. Voters living abroad or stationed overseas are voting on another completely different system, or not able to vote at all.

We believe there will be a time, soon, when using a ballot like the Anywhere Ballot on touchscreen technology that is readily available and relatively inexpensive will make it possible for almost everyone to vote easily, privately, and independently. On the very same system.

The Anywhere Ballot will also be impactful because of how it increases the accessibility and usability of voting. From a usability standpoint, Anywhere Ballot establishes a "best practices" visual language for digital ballot design, and presents an exemplar of plain interaction design. It proposes important interaction conventions to prevent voters making mistakes, and refines what's known about plain language for instructions on ballots.

The Anywhere Ballot is uniquely poised for implementation in real-world elections.

The Anywhere Ballot doesn't replace current systems; it's a ballot marking interface, not a complete election management system. Consequently, it could be implemented within the context of many existing systems. This interface is one piece in the development of new options that are taking a different approach to what "voting system" means. It could and should be the ballot interface for all of those systems.

One reason it took so long for the best practice optical scan ballot designs to gain ground was that none of the voting systems actually supported the recommended guidelines. To implement the Anywhere Ballot, we need a voting system that supports best practice digital ballot design.

Accessible ballot marking devices and UOCAVA blank ballot delivery systems offer perfect test beds for jurisdictions to try the Anywhere Ballot. Newer commercial systems, and systems being designed in places like Los Angeles

and Travis counties, we hope, will be the next step for implementation of Anywhere Ballot.

The research and development of the Anywhere Ballot was a project of the Accessible Voting Technology Initiative of ITIF, through a grant from the EAC. The template is under a Creative Commons license. We can easily make the underlying CSS and HTML available to anyone who'd like to use it, and we have developed a pattern library that describes all of the major elements of the design.

My team would be delighted to partner with vendors and jurisdictions to implement Anywhere Ballot to work in real jurisdictions, under real election laws, and pilot it with real voters in real elections.

Anyone can try out Anywhere Ballot on any device with a browser right now at anywhereballot.com

Thank you again to all of the commissioners for your time and consideration.