Electronic Ballot Delivery System Accessibility/Usability Guidelines

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1. Introduction

Jurisdictions provide various alternatives to traditional election-day voting at the polls. Such programs include voting by mail, early voting, and absentee voting. These programs should be accessible for voters with print disabilities, including voters who are blind, deaf-blind, visually impaired, and dexterity impaired. For these voters delivery of ballots by mail does not provided needed voting accessibility. Reading and completing mailed ballots requires assistance by people other than the voters with print disabilities. This inaccessibility can be effectively ameliorated by electronic ballot delivery to the disabled voter’s own computer permitting the disabled voter to use accessibility software to read, fill out, and print out the ballot. The guidelines below provide standards to be followed to make electronic ballot delivery systems accessible.

1. Key Terms

**Electronic ballot delivery system:** systems that voters use to mark their ballot outside of a polling place or voting center. These systems allow a voter to receive a blank ballot to mark electronically, print, and then cast by returning the printed ballot to the elections office.

1. Technical Standard

The electronic ballot delivery system web pages shall conform to the WCAG 2.0 AA with the following clarifications, additions, and/or exceptions:

* 1. User Access

3.1.1 In general, electronic ballots shall be accessed through a web site. Electronic ballots may be delivered by email at the discretion of election officials.

* + 1. For security reasons, access to electronic ballot delivery systems via unsupported browsers and other software shall be denied. As a minimum, access shall be possible using the two most recent major versions of the three most commonly used browsers.
    2. Any authentication used to confirm that content is being accessed by a human rather than a computer shall be accessible.
  1. Testing for compatibility with voter's computer system and software.

3.2.1 After the user has logged in, but before the user accesses the ballot, the electronic ballot delivery system should test the user's computer system and software for compatibility. As a minimum, the two most recent major versions of the three most commonly used software programs required to acess and mark the ballot shall be supported.

* + 1. When incompatibility is discovered, the electronic ballot delivery system should identify the incompatible components to the user.
    2. The electronic ballot delivery system should prevent access to the ballot by users with incompatible hardware and software.
    3. Instructions on how user can upgrade incompatible hardware and software should be provided.
    4. Instructions on how user can contact the board of elections for other voting options should be provided.
  1. Time limit before system times out--warning that system is about to time out.

3.3.1 Electronic ballot delivery systems that include a time limit may time out after 15 minutes of user inactivity.

* + 1. A notice must be provided to the user at the top of each page that the system will time out after 15 minutes of inactivity by the user.
    2. Additional warnings that the system will time out must be provided to the user when the user has been inactive for 10 minutes and 14 minutes.
    3. Following the second warning at 14 minutes, the user can extend the time limit with a simple action.
    4. If the system times out, the time out page must provide the user instructions on how to return to the ballot.
  1. Printing of ballot

3.4.1 Printing instructions shall be in an accessible media and shall be usable without vision.

* + 1. Printing instructions shall include a list of the order in which pages are printed.
    2. Signature page shall print before the ballot. At least one page shall separate the signature page and ballot to ensure secrecy.
    3. Each generation of the ballot shall have a unique number.

3.5 Provision of help line voters can call if they are not able to resolve problems on their own.

* + 1. The board of elections shall provide a help line that voters can call when they experience problems while using the system.
    2. The contact information for the help line and the hours that it is available shall be displayed on each page of the electronic ballot delivery system.

1. User testing by people with disabilities

4.0.1 Usability testing of the electronic ballot delivery system shall include testing by voters with disabilities. Testers shall have a broad range of experience using computers and assistive technology.

* + 1. Testing shall demonstrate the compliance of the electronic ballot delivery system web pages with WCAG 2.0 AA and these guidelines.
    2. The assistive technology used for usability testing shall consist of the technology commonly used by individuals with disabilities at the time of the testing, and shall include, but not be limited to, screen reading software, screen magnification software, refreshable Braille displays, keyboard only, and voice recognition.

5.0 Resources

Principles and Guidelines for Remote Ballot Marking Systems

<http://civicdesign.org/wp-content/uploads/2015/09/Principles-for-remote-ballot-marking-systems-16-0210.pdf>

Web Content Accessibility Guidelines (WCAG) 2.0 AA

<http://www.w3.org/TR/WCAG20/>

Voluntary Voting System Guidelines

<http://www.eac.gov/testing_and_certification/voluntary_voting_system_guidelines.aspx>