A Consideration of Voting Accessibility for Injured OIF/OEF Service Members: Needs Assessment

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PREPARED FOR: Election Assistance Commission 1201 New York Avenue, N.W. Suite 300 Washington, D.C. 20005

PREPARED BY: Human Systems Integration Division Electronic Systems Laboratory Georgia Tech Research Institute Georgia Institute of Technology Atlanta, Georgia 30332



Annotated Literature Review Results

Voting Device Assessment Methods

Quesenbery, W. (2004). *Defining a summative usability test for voting systems*. A report from the UPA 2004 Workshop on Voting and Usability, Minneapolis, Minnesota.

This paper describes the work conducted by a group at the 2004 Usability Professionals' Association annual conference in "creating a fully-defined usability test protocol for a voting system standard." Building on the work of John O'Hara's 2003 white paper, "A Proposed Approach to Testing the IEEE Usability/Accessibility Standards", this paper attempts to describe identify and describe metrics for establishing pass/fail criteria for a conformance test.

Selker, T., Rosenzweig, E., & Pandolfo, A. (2006). A methodology for testing voting systems. *Journal of Usability Studies, 2*(1), 7-21.

This paper describes the importance of testing voting technology in realistic settings rather than lab style experiments. Testing in realistic settings exposes the challenges in voting process control as well as maintaining consistent voting experiences. For example, the authors discovered that poll workers and polling place conditions affect the usability of the voting process as much as voting machines. The paper concludes with a recommended protocol for testing voting technology in realistic settings.

Traugott, M. W. (2002). *Testing alternative hardware and ballot forms*. Paper presented at the meeting of the Working Group on Voting Technologies and balloting, held at the University of Maryland, College Park, MD.

This paper reviews methods for evaluating alternative hardware and ballot designs. The proposed methods include a series of basic research studies complemented with focus groups and an applied research study involving the development of a facility designed to mimic "real world" conditions. The author raises issues with each of the methods in terms of feasibility and cost.

Usability Professionals' Association. (2007). LEO Kit: Usability Testing for Local Election Officials. Retrieved from http://www.upassoc.org/civiclife/voting/leo_testing.html.

The goal of this project was to create a testing kit that would allow individuals with no training in usability or human factors engineering to test the usability of ballots before an election. The kits are specifically designed to be used by local election officials (LEOs), hence the term the LEO kit. Available on the website for the Usability Professionals' Association, the LEO kits consists of an instructional guide, a session script, session materials (i.e., forms for participants), a sample test report, and training workshop handouts.

User-Centered Design, Inc. (2006). Preliminary report on the development of a user-based conformance test for the usability of voting equipment.

This paper describes conformance tests for the usability of voting systems based on human performance testing. The tests are designed to determine whether a system meets performance requirements using potential voters as participants. As a conformance test, the system may either pass the test if it meets the requirements or fail if any requirements are not met. The conformance tests do not involve individuals with disabilities. The authors suggest the development of another test method for users with disabilities.