

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF OHIO**

SHELBI HINDEL, *et al.*,

*

Plaintiffs,

*

v.

*

Civil Action No. **2:15-cv-3061**

JON A. HUSTED,

*

Defendant.

*

* * * * *

DECLARATION OF KATHRYN SUMMERS

I, Kathryn Summers, declare as follows:

1. I am over 18 years of age and am competent to make this declaration.
2. My business address is 1420 N. Charles St., Baltimore, Maryland 21201.
3. I am an Associate Professor at the University of Baltimore, specializing in user research and usability testing, human/computer interaction, and interaction design. I also direct the University of Baltimore's user research laboratory.
4. A true and accurate copy of my curriculum vitae is attached as Exhibit A.
5. User research entails learning about how users interact with technology and perform processes, with a focus on designing technology to fit their processes and make it as easy as possible for the user to learn and perform.
6. In the fall of 2013, I performed usability testing on Maryland's online ballot marking tool at the request of the Maryland State Board of Elections ("Board"). The goals of the testing were


to determine if voters with various factors, including blindness, mobility impairments, dexterity impairments, cognitive impairments, and literacy challenges, could access, mark, and print their ballots independently, verify that their marked ballots matched their intent, and submit their ballots successfully – all while maintaining their privacy and confidentiality. Testers used a variety of screen access software to access the ballot marking tool.

7. Although my testing uncovered some problems with the tool, the Board eventually fixed nearly all of these problems. The tool, as it exists today, is exemplary. There is always room for improvement, but, the online ballot marking tool is very usable for blind voters and other voters with disabilities.

8. When voters are finished using the ballot marking tool to mark their ballots, they must print their ballots for submission. The ballot prints separately from the signature page, which allows those who need assistance with signing to obtain that assistance without sacrificing the secrecy of their ballot.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: 12/3/15


Kathryn Summers

Attachment A

Kathryn Summers

8 Bellclare Circle
Sparks, MD 21152
(410) 472-9395

1420 N. Charles St
Baltimore, MD 21201
(410) 837-6202

EDUCATION: **English Ph.D.** Aug 1995, Texas Christian University
Emphasis: Rhetoric and Composition, Victorian Literature

English M.A. December 1992, Brigham Young University
Emphasis: British Literature and Rhetoric

B.S. cum laude 1987, Brigham Young University.
Major: University Studies, a self-designed program combining computer science and writing.

TEACHING RESPONSIBILITIES:

User research methods. Interaction and information design. Human/computer interaction. Information Architecture.

PUBLICATIONS (Refereed):

“How Concurrent Think-Aloud Changes User Behavior: Evidence from Eye-Tracking.” (2014). *Journal of Usability Studies*. With Elizabeth Zietlow, Malia Nagle, and Jonathan Langford. *Submitted April 2014*.

“Using Eye-Tracking and Form Completion Data to Optimize Form Instructions” (2014). *Proceedings of IEEE International Professional Communication Conference*, October 13-15, 2014, Pittsburgh, PA. With Noel Alton, Caitlin Rinn, and Kath Straub. *Accepted*.

“Making Voting Accessible: Designing Digital Ballot Marking for People with Low Literacy and Mild Cognitive Disabilities.” (2014). *USENIX Journal of Election Technology and Systems* (2014), 2.2. With Dana Chisnell, Drew Davies, Noel Alton, and Megan McKeever. *Accepted*.

Colter, A., & Summers, K. (2014). Eye Tracking with Unique Populations: Low Literacy Users. In J.R. Bergstrom & A. J. Schall (Eds.), *Eye Tracking in User Experience Design* (331-348). Waltham, MA: Morgan Kaufmann.

“Rich search results for low literacy web users.” (2013). In *Proceedings from UXPA Conference 2013: Washington, DC*. With Malcolm McKemeny, Nikki Kerber, Noel Alton, and Megan McKeever.

“The problem of implicature in ‘do not track’ choice design.” (2013). In Human-Computer Interaction Thematic Area, 23-26 July, Las Vegas, in HCI International 2013. Posters, Part I, HCII 2013. Springer-Verlag Berlin Heidelberg. Co-authors, Lisa Harper, Deborah Kohl.

“The importance of choice design for low literate user experience.” (2013). In Human-Computer Interaction Thematic Area, 23-26 July, Las Vegas, in HCI International 2013. Posters, Part I, HCII 2013. Springer-Verlag Berlin Heidelberg. Co-authors, Lisa Harper, Melissa McMacken, Lianne Appelt.

Co-author, “Designing for people who do not read easily.” (2012). *Rhetorical Accessibility: At the Intersection of Technical Communication and Disability Studies*. Ed. Lisa Meloncon. New York: Baywood, 2012. With Caroline Jarratt and Janice Redish.

“Designing Web-based Forms for Users with Lower Literacy Skills.” *ASIS&T Proceedings*, Oct 2006. Austin, TX.

“Reading and Navigational Strategies of Web Users with Lower Literacy Skills.” *ASIS&T Proceedings*, Oct 2005. Charlotte, NC. (Won “Best Paper” in Information Behavior)

“Clear Health Communication on the Web: Making Medical Content Accessible to Lower-Literacy Users.” *Usability Professionals Association Proceedings*, June 2005. Montreal, Canada.

Co-author, “Supporting Sociable Literacy in the International Children’s Digital Library.” *Proceeding of the 2004 conference on Interaction Design and Children: Building a Community* (2004): 89-96.

Creating Websites That Work. Kathryn Summers, Michael Summers. New York: Houghton-Mifflin, 2004.

“Contextual Inquiry into Children’s Reading: Working with Children as Research Partners.” *Usability Professionals Association Proceedings*, June 2003. Scottsdale, AZ.

Co-author, “Starting an Intergenerational Technology Design Team: A Case Study.” *Proceeding of the 2003 Conference on Interaction Design and Children* (2003): 51-58.

“Epideictic Rhetoric in the *Englishwoman’s Review*.” *Victorian Periodicals Review* (Fall 2001) 34.3: 25-33.

“Discourse and the Carnavalesque Woman: *The Book of Margery Kempe*.” *Quidditas* (1998) 19: 1-26.

PUBLICATIONS (Not refereed):

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“When you need the medicine but can’t understand the form: Making prescription medicine available to low-income patients.” *Intercom* February (2014): 61.2: 11-15. With Michael Summers and Amy Pointer.

“Design to Read: Designing for people who do not read easily.” *User Experience* 9.2 (2010). With Caroline Jarratt, Janice Redish, and Kath Straub.

Technical Report (August 2007): “Patient Assistance Program Form Usability.” Proprietary research funded by a major pharmaceutical company. Print and online forms were evaluated and improved through seven rounds of iterative testing and redesign. The final results were evaluated in a within-subject quantitative comparative test involving 30 users with low literacy skills and 28 users 65 years or older. A second evaluation after the new form was launched showed a 36% drop in follow-up processing costs.

Technical Report (August 2005): “Making Online Interactive Medical Forms Accessible to Lower-Literacy Users.” Proprietary research funded by a major pharmaceutical company. Observed 42 users with lower literacy skills interacting with a variety of online medical forms. Developed guidelines to facilitate form use; built and tested sample prototypes of online tools to demonstrate guidelines and confirm their efficacy.

Technical Report (October 2004): “Making Medical Content Accessible to Lower-Literacy Users Via the Web.” Co-investigator in proprietary research funded by a major pharmaceutical company. Observed 100 high and low-literacy users search for medical information on the Web; developed guidelines to facilitate low-literacy web use; built sample prototype of medical site following guidelines; performed quantitative comparison of prototype with original to measure improvement. With Michael Summers.

“Making the Web Friendlier for Lower-Literacy Users.” *Intercom* June (2004): 19-21. With Michael Summers.

“Libraries in Computers: Working with Children as Research and Design Partners.” *Computers in Libraries Proceedings*, March 2003, Washington, D.C.

“Identifying Web Site Requirements” *Intercom* June (2001): 6-13. With Michael Summers.

Rev. of *Analysing for Authorship: A Guide to the Cusum Technique* by Jill M. Farrington. *D. H. Lawrence Review* 28.1-2 (1999): 182-84.

Rev. of *Magic, Rhetoric, and Literacy: An Eccentric History of the Composing Imagination* by William A. Covino. *Composition Studies* 23.1 (Spring 1995): 121.

GRANTS:

Co-PI, Usability of Personal Passwords Survey, with Dana Chisnell. Funded for 2014-2015 by NIST, \$114,825.65.

PI, Usability Testing for Ballot Marking Systems. Funded for 2013-2014 by MD State Board of Elections, \$123,447.

PI, Future voting system test bed development. Funded for 2013-2014 by NIST, \$66,548.

PI, Design and development of an online ballot marking interface with Dana Chisnell and Drew Davies, optimized for people with lower literacy, disabilities, and for older users. Funded for 2012-2013 as part of the Accessible Voting Technology Initiative by ITIF, \$103K

PI, Eyetracking research of engagement patterns and mental models of participants using smoking cessation websites for National Cancer Institute, 2009. \$23K.

Co-PI, Eyetracking research and prototype design exploration on www.cancer.gov for National Cancer Institute, 2008, with Whitney Quesenberry, \$10K.

Research support grant, UBalt, 2007 (“Exploring eye behaviors during online reading for native Chinese and native English speakers)

Contextual inquiry, cardsorting, paper prototyping, and usability testing for the University of Maryland School of Pharmacy, 2006

Sponsored research into optimizing forms for lower literacy Web users, 2005

Research and equipment grant from the Nielsen Norman Group for low-literacy quantitative usability study, 2003

Co-PI, NSF curriculum development grant, 2002-2006 (KidsTeam participatory design), with Nancy Kaplan and Stuart Moulthrop

Research support grant, UBalt, 2003 (“Exploring effective online delivery of medical information to low-literacy users)

IMAC education technology grant, 2003 (usability lab equipment)

Research support grant, UBalt, 2002 (“Exploring user mental models of location, path, and attribute breadcrumbs in Web navigation)

New Faculty Research Grant, UNCG, 1995-96 (epideictic rhetoric)

CONFERENCE PARTICIPATION:

“(Self-)Service Design: Eyetracking findings that will help you design forms that everyone can use.” User Experience Professionals Association, July 21-24, 2014, London, UK. With Noel Alton, Caitlin Rinn, and Kath Straub.

“Making Voting Accessible: Plain Language and Plain Interaction.”
EAC/NIST Accessible Voting Technology Research Workshop, April 1-2,
2013, Bethesda, MD.

Panel “Plain Language: Expert Perspectives on What’s Next” with Janice
Redish and Charlene Haykel. User Focus, Washington, D.C., October 15,
2010.

“Designing Forms, Surveys, and Apps for the Web.” Web Managers
University, Washington, DC, May 19, 2010.

“Eyetracked Reading Behaviors of High- and Low-literacy Participants.”
Society for Technical Communication, Dallas, TX, May 4, 2010.

Workshop: “Design to Read.” Computer/Human Interaction (CHI), Atlanta,
Georgia, April 10, 2010. With Caroline Jarratt and Helen Petrie.

Workshop: “Design to Read.” Usability Professionals Association, Portland,
Oregon, June 8, 2009. With Caroline Jarrett and Whitney Quesenberry.

“Designing and Writing Forms for the Web.” Web Managers University,
Washington, DC, May 13, 2009.

Workshop: “Designing for those who don’t read well.” Human/Computer
Interaction Conference, Liverpool, England, September 2, 2008. With
Caroline Jarrett.

“PAP Application Usability and Lessons Learned.” Center for Business
Intelligence Patient Assistance Programs, Baltimore, MD, March 4, 2008.
With Cherie Helms.

“How Eyetracking Can Benefit Usability Research.” Usability Professionals
Association-DC, Washington, DC, October 2007. With Michael Summers,
Jeannette Fox, and Nick Boswell.

“How Eyetracking can Benefit User Research.” Philadelphia CHI, King of
Prussia, PA, September 27, 2007. With Michael Summers.

“How Eyetracking Can Inform Design Decisions: A Hands On Case Study
with the Tobii T60.” WMU, American Institute of Architects Boardroom,
June 28, 2007. With Michael Summers.

“Getting Users From Point A to Point B: Designing & Writing Tasks for the
Web.” FDIC Training Facility, Arlington, VA, April 24, 2007.

“Designing and Writing Forms for the Web.” Department of Labor,
Washington, DC, March 14, 2007.

“Making Online Information More Accessible for Low-Literacy Users.” Web
Managers University, Washington, DC, March 14, 2007.

“Designing Online Forms for Users With Lower Literacy Skills.” Usability Professionals Association – DC, Oct 13, 2006.

“How to deliver online medical content to a broad consumer audience.” *Society for Technical Communication*, May 2006. Las Vegas, NV.

“Designing online forms for users with lower literacy skills.” *Society for Technical Communication*, May 2006. Las Vegas, NV.

“Reading and Navigational Strategies of Web Users with Lower Literacy Skills.” *ASIS&T Proceedings*, Oct 2005. Charlotte, NC.

“Clear Health Communication on the Web: Making Medical Content Accessible to Lower-Literacy Users.” *Usability Professionals Association Proceedings*, June 2005. Montreal, Canada.

“Adapting Web-based Medical Information for a Broad Consumer Audience.” STC Philadelphia-Metro Area Regional Conference, March 19, 2005. Philadelphia, Pennsylvania.

“Web Usability for Lower-Literacy Users,” Society for Technical Communication, Baltimore, MD, May 12, 2004.

“Making Online Information More Accessible for Lower-Literacy Users,” Association for Teachers of Technical Writing, San Antonio, TX, March 24, 2004.

“Contextual inquiry into children’s recreational reading with children as research partners.” Kathryn Summers, Michael Summers. Usability Professionals Association, June 26, 2003. Scottsdale, AZ.

“Kids in the Mi(d)st” Kathryn Summers, Nancy Kaplan, Holly Weeks, Rahul Kulkarni, Yoram Chisik. Information Architecture Summit, March 23, 2003. Portland, Oregon.

“Libraries in Computers: Working with Children as Research and Design Partners.” Kathryn Summers, Holly Weeks, Kendra Knudtson. Computers in Libraries, March 15, 2003, Washington, D.C.

“Web-Based Communication in the Technical Writing Classroom.” Modern Language Association, December 2000.

“Defining Woman’s Mission: Education and Cultural Authority in Victorian England.” Rhetoric Society of America, June 2000.

“Re-Imagining Women as Students and Teachers in Mid-Victorian England.” Conference on College Composition and Communication, Milwaukee, April 2000.

"Constructing Students and Teachers in Mid-Victorian Debates on Women's Education." Conference on College Composition and Communication, Atlanta, GA, March 26, 1999.

"19th-Century Utopian Rhetoric — From Fiction to Community." Rhetoric Society of America, May 1998.

"Working-Class Pedagogies for Middle-Class Students: Managing the Reinscription of Class Codes in Rewriting Assignments." Conference on College Composition and Communication, Chicago, IL, April 4, 1998.

"Epideictic Rhetoric in the *Englishwoman's Review*: Constructing Victory." From Boundaries to Borderlands: Intersections of Feminism(s) and Rhetoric(s). Oregon State University, Corvallis, Oregon, August 1997.

"Managing the Reinscription of Class Codes: Rewriting Assignments and Narrative Play." Conference on College Composition and Communication, Phoenix, AZ, March 14, 1997.

"Feminist Epideictic Rhetoric: Complicity or Subversion?" Rhetoric Society of America, Phoenix, AZ, May 1996.

"Renegotiating Gender Through Narrative Play." Conference on College Composition and Communication, Milwaukee, WI, March 29, 1996.

"Creating Textual Space: Women's Use of Epideictic Rhetoric." Conference on College Composition and Communication, Washington, DC, March 23, 1994.

"Constituting Community: The Binding Thread of Epideictic Rhetoric." Rhetoric Society of America, Norfolk, VA, May 21, 1994.

"Epideictic Narrative in Christine de Pizan's *Book of the City of Ladies*." The Penn State Conference on Rhetoric and Composition, July 7-10, 1993.

"Lady Elizabeth Cary's *Tragedie of Mariam*: The Contradictions of Submission." Symposium on Women and the Arts in the Renaissance: Women and Power. National Museum of Women in the Arts, Washington, DC, March 1993.

"Christine de Pizan's City of Ladies: Creating a Community of Women." Rocky Mountain MLA, Ogden, UT, October 1992.

"St. Teresa in Victorian England." BYU Graduate Symposium, Provo, UT, February 1992.

"Epideictic Rhetoric in Christine de Pizan." BYU Faculty Symposium, Provo, UT, March 1992.

TEACHING EXPERIENCE:

Associate Professor, University of Baltimore, Baltimore, MD (2005 to present)

Assistant Professor, University of Baltimore, Baltimore, MD (2001 to 2005)
User research and usability testing, human/computer interaction, information architecture, professional and technical communication, British literature

Assistant Professor, University of North Carolina at Greensboro, Greensboro, NC (Aug 1995 to July 2001)
Professional and technical communication, history of rhetoric and rhetorical theory, composition, Victorian literature

Graduate Instructor, TCU, Fort Worth, Texas. (Sept. 1993 to May 1994)
Composition and rhetoric

Graduate Instructor, BYU, Provo, Utah. (Sept. 1990 to July 1992)
Composition and rhetoric, technical communication

RELATED EXPERIENCE:

User Research and Usability Consultant, 2002 to present
Projects for Reuters.com, Pfizer, MCI, Crestor.com (Astra-Zeneca), TreasuryDirect.gov, Gloss.com, Nielsen Norman Group

Technical Writer, IBM-Education West, (1987, 1990-91)
Educational software documentation, technical editing

Technical Writer, IBM Bethesda, (1985)
Software documentation

PROFESSIONAL AFFILIATIONS:

User Experience Professional Association
Society for Technical Communication
Association of Information Systems & Technology
Association for Computing Machinery

LANGUAGES:

Spanish, 15 credits, one-year residence in BYU Spanish House
Portuguese, 18 months residence in Lisbon, Portugal
French, 12 credits

ACADEMIC HONORS:

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ASIS&T Information Behavior SIG “Best Paper” 2005
Fellowship, Texas Christian University (TCU), 1994-95
Lillian Radford Fellowship in Rhetoric and Composition, TCU, 1992-93
T. J. Watson Scholarship, IBM, 1983-87
Trustees Scholarship, Brigham Young University, 1983-87