

ELIZABETH A. BUIE

"Enhancing the User Experience, to Drive Success"



Web Sites ♦ Web Applications ♦ Desktop Applications
Printed Materials ♦ Training Workshops ♦ Command-and-Control Systems

- ♦ A three-decade career in human-computer interaction, user-centered design, and the user experience, with a keen eye for visual design, honed by photographic training and experience
- ♦ Published author with expertise in a multitude of products and systems
- ♦ Clients spanning diverse organizations, including businesses, nonprofits, and government agencies

KEY ACHIEVEMENTS

- ♦ Designed user interaction/interface for U.S. Patent and Trademark Office's Patent File Wrapper (PFW), a system for managing patent application examination. USPTO praised the design as well as the speed in gaining an understanding of their tasks and issues.
- ♦ Led team that redesigned web site of American Library Association (www.ala.org). Designed and coordinated full range of activities across redesign life cycle: stakeholder interviews, user focus groups, usability testing, web planning workshop, information architecture, graphic design, member opinion surveys. (Detailed information is on the ALA wiki, at wikis.ala.org/webplanning/.) Redesign received positive feedback from ALA and its members.
- ♦ Conducted as-needed usability evaluation of enterprise applications for Plateau Systems, Inc. Won first project through competitive bid, then was selected as sole-source provider because of exceptional work delivered.
- ♦ Conducted usability study of US Citizenship and Immigration Services' E-Verify system, through which employers verify new employees' eligibility to work in the United States and which was receiving major complaints about usability. Conducted expert review, designed/conducted usability tests, interviewed users, analyzed results, wrote report. Implementation of findings could lead to greater use of E-Verify.
- ♦ Designed interaction/interface of Federal Aviation Administration's touchscreen-based En-Route Information Display System (ERIDS) for air traffic controllers. Strong understanding of the technology and its constraints enabled effective communication and collaboration with developers. Controllers love the system, and those who viewed it at beta sites urged adoption in their own facilities.
- ♦ Conducted usability assessment of FedTraveler.gov, part of a project to assess the three Federal e-Travel services both independently and in parallel. Worked with other teams to define common assessment methods and report structure/format without allowing the evaluations to bias one another.
- ♦ Directed the conduct of research designed by National Library of Medicine to study readability of health information for low-literacy consumers. Advised NLM on study design, instrument validity, statistical significance. Study validated NLM's "Term Difficulty Test" concept as a measure of comprehension.
- ♦ For recommendations from clients, managers, and coworkers, see Elizabeth's LinkedIn profile: www.linkedin.com/in/elizabethbuie.

QUALIFICATIONS SUMMARY

- ♦ Deep and broad skills in diverse user experience techniques:
 - ♦ **Client research** — stakeholder interviews, design/facilitation of workshops and focus groups
 - ♦ **User research** — user focus groups, interviews, surveys, card sorting, information prioritization
 - ♦ **Requirements specification** — elicitation, definition, analysis, allocation
 - ♦ **Information architecture** — category/hierarchy development, naming, conceptual modeling, task analysis, site maps/indexes, layout, navigation design
 - ♦ **Interaction design** — concept generation, cognitive models, personas/profiles/scenarios, task matrices and flow diagrams, construction of mockups and prototypes
 - ♦ **Interface design** — selection of fonts/colors/widgets; selection/tailoring/application of guidelines
 - ♦ **Experimental research** — experiment design/conduct; quantitative/qualitative data analysis

- ◇ **Usability inspection** — heuristic evaluation, guidelines-based expert review
- ◇ **Usability testing** — test design, test administration, data analysis, recommendations
- ◇ **Accessibility review** — site inspection, exercise with the JAWS screen reader, Section 508 guidance
- ◆ Outstanding written communication skills: editor of a column in <interactions> for six years, with two articles published there; published in The Washington Post and in System Development; member of the editorial boards of <interactions> and Journal of Usability Studies
- ◆ Familiarity with standards, guidelines, best practices, and the human factors principles behind them: member since 1992 of the HFES 200 Committee and contributor to the ANSI/HFES-200 standard, “Human Factors Engineering of Software User Interfaces”

KEY PROFESSIONAL EXPERIENCE

6/2007–
present **Luminanze Consulting, LLC, Silver Spring MD** www.luminanze.com
PRINCIPAL CONSULTANT

Consulting in the field of human factors, user-centered design, and the user experience.

Key Projects at Luminanze

- ◇ Interaction/interface design for the USPTO’s PFW. Prime Contractor: Info|Reliance.
- ◇ Web site redesign for American Library Association. (Continued work begun as UserWorks employee.)
- ◇ Usability evaluation of various enterprise applications for Plateau Systems, Inc.
- ◇ Human factors study of USCIS’s E-Verify system. Client: eNTEGRIT; prime contractor, Computer Sciences Corporation.

9/2005–
5/2007 **UserWorks, Inc., Silver Spring MD** www.userworks.com
PRINCIPAL USABILITY SPECIALIST AND DIRECTOR OF INTERACTION DESIGN

Project management and technical leadership of a variety of projects in human factors research, usability assessment, and interaction design. Mentoring of colleagues in human factors principles and practices, interaction and interface design, and statistical issues affecting research projects. Writing of proposals for new business. Staff photography.

Key Projects at UserWorks

- ◇ Directed usability assessment of American Library Association’s web site. Designed and facilitated ALA’s web planning workshop on redesign goals, process, next steps. Directed information architecture for redesigned site.
- ◇ Directed and conducted usability assessment (testing and expert review) of FedTraveler.gov, part of a project to assess the U.S. Government’s three e-Travel services independently. Worked with other teams to define common assessment methods and report structure/format without allowing the evaluations to bias one another.
- ◇ Conducted usability assessment of U.S. Department of Education’s “Fundamentals of Title IV Administration” workshop. Reviewed materials, facilitated discussions, created/analyzed online surveys.
- ◇ Directed the conduct of a research project designed by the National Library of Medicine, to investigate the readability of health information by low-literacy consumers.

3/1977–
9/2005 **Computer Sciences Corporation, Rockville MD (and other locations)** www.csc.com
SENIOR PRINCIPAL ENGINEER

System engineering and interaction/interface design on dozens of projects. Analysis, specification, design, development, and evaluation of web sites, web applications, and desktop applications. Specification and analysis of system and software requirements; definition of HCI engineering role in system life cycle. Founder and cochair of CSC’s User Experience Community.

Key Projects at CSC

- ◇ Interaction/interface of ERIDS for FAA. Designed new color scheme and layout; designed/produced on-screen buttons. Wrote style guide. Analyzed, designed, and

prototyped new and revised screens; participated in software design reviews and build/release testing.

- ◇ Helped redesign U.S. Nuclear Regulatory Commission's web site. Conducted user interviews, focus groups, usability testing, expert review for analysis of existing design. Contributed substantially to redesign of information architecture, navigation, and look. Analyzed user feedback on prototype and supported development of Phase I site.
- ◇ Technical lead, system engineering support for the Flight Operations Segment (FOS) of the Earth Observing System (EOS). Helped NASA review, guide, and assist development/testing contractors. Contributed to development of operations concept, provided expert review of HCI, and designed/conducted usability testing.
- ◇ Supported NASA/Goddard Space Flight Center on numerous projects, primarily involving spacecraft control centers.
- ◇ Supported AERITALIA and Space Software Italia (Italy) on human factors / HCI for the Crew Work Station of the International Space Station's Columbus (European) laboratory.

TECHNICAL SKILLS

Software: MS Office, Adobe Photoshop, Adobe Dreamweaver, OmniGraffle, Visio, SPSS, SurveyMonkey

Languages: HTML/XHTML, CSS, JavaScript, FORTRAN

SELECTED PUBLICATIONS (for the complete list, see the bottom of my online resume, at www.luminanze.com/about/resume.html)

Buie, E., & Vallone, A. (1997). Integrating HCI engineering with software engineering: A call to a larger vision. In Smith, M. J., Salvendy, G., & Koubek, R. J. (Eds.), *Design of Computing Systems: Social and Ergonomic Considerations (Proceedings of the Seventh International Conference on Human-Computer Interaction), Volume 2*. Amsterdam, the Netherlands: Elsevier Science Publishers, 1997, pp. 525-530.

Buie, E., & Vallone, A. (1995). Human-system interaction development: An integral part of the systems engineering process. In *Proceedings of the Fifth Annual International Symposium of the National Council on Systems Engineering*, 1995. pp. 927-930.

Hefley, W., Lynch, E., Buie, E., Muller, M., Hoecker, D., Carter, J., & Roth, J. T. (1994). Integrating Human Factors with Software Engineering Practices. In *Proceedings of the Human Factors and Ergonomics Society 38th Annual Meeting*, 1994, pp. 315-319. Republished in G. Perlman, G. K. Green, & M. S. Wogalter (Eds.) *Human Factors Perspectives on Human-Computer Interaction: Selections from Proceedings of Human Factors and Ergonomics Society Annual Meetings, 1983-1994*. Santa Monica, CA: HFES, 1995, pp. 359-363.

EDUCATION / FOREIGN LANGUAGE

M.S., Mathematics, 1975; B.S., Mathematics (honors, 1974), North Carolina State University

M.A., Human Development, University of Maryland, 1990. Thesis: "Jungian Psychological Type and Subjective Satisfaction with Using a Computer for Educational Statistics"

Fluent in Italian