

User Experience Research, Design & Management

Lowell Staveland

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MA Experimental Psychology, San Jose State University, San Jose, CA 1988

BS Physical Anthropology, University of California, Davis, CA 1984

Twenty-four years of UX research, design, and management to create effective, engaging designs and positive brand relations that ensures customer success.

FULL TIME POSITIONS

IBM, 2016 -CURRENT SENIOR UX RESEARCHER FOR IBM API CONNECT

STAVELAND HUMAN FRIENDLY ENGINEERING INC, 1994-2015 OWNER/CONSULTANT

FIRSTRAIN INC, 2014-15 SENIOR USER EXPERIENCE ARCHITECT

NASA AMES, BOEING, STERLING SW, SJSU, 1984-1993 HUMAN FACTORS ENGINEER / RESEARCH PSYCHOLOGY ASSOCIATE

EXPERIENCE

PRODUCT / PROGRAM FOCUS

Market intelligence apps ♦ Video messaging apps ♦ Design thinking programs ♦ App & API development products ♦ Cloud management ♦ Licensing apps ♦ Global usability programs ♦ Server management UIs ♦ Network appliance UIs ♦ Printing SW UIs ♦ Smartphone designs ♦ Healthcare apps ♦ Contact management apps ♦ Business process apps ♦ Personal finance apps ♦ Personal security apps

Skills

User Experience Research ♦ Experimental Design ♦ Human Factors ♦ User Experience Design ♦ Interaction Design ♦ Information Architecture ♦ UI Specs ♦ Wireframing ♦ Usability ♦ Project Management ♦ Product Testing ♦ User Modeling ♦ Data Analytics

Research & Design Tools

Optimal Sort ♦ UserTesting ♦ Sketch ♦ Axure ♦ Adobe Creative Cloud ♦ Visio ♦ OmniGraffle ♦ Slack ♦ Evernote ♦ Rally ♦ AHA ♦ R ♦ Markdown ♦ Shiny ♦ Mural.ly Node.js ♦ GitHub

Languages & Operating Systems

Node.js ♦ Javascript ♦ HTML 5 ♦ CSS ♦ IOS ♦ Windows ♦ Mac ♦ UNIX ♦ Linux ♦ HPUX

DETAILED WORK HISTORY

2016 - current. IBM: Senior UX Researcher

API Development Tools and Platforms for Hybrid Cloud

Led UX research to implement design thinking research methods for IBM's API platform 'API Connect' and to deliver essential research insights that provide design guidance on SW developers migration to using RESTful APIs in the rapid growing new API ecosystem.

2015 - 2016. World Ventures: Senior Data Scientist

Psychographic Modeling of Travel Behavior

Informing corporate decisions by using network science (network models & graph theory) to create predictive models of user travel behavior using R, RStudio, Shiny and Rmarkdown.

2014 - 15. FirstRain, Inc.: Senior User Experience Architect

Personalized Business Analytics Platform

Designed the product experience: understood the user - how they worked and thought; created design requirements and design experiences; defined the best way to turn user needs and desires into the most engaging experiences.

2013. Intel Labs: User Experience Researcher / Human Factors Engineer

Pocket Avatars – Video Messaging app for Android & iOS

Determined viability and design direction for Pocket Avatars, an iOS and Android app to create 15-second messages that capture facial expressions in an avatar. Utilized qualitative and quantitative methods to collect and report on data from hundreds of users in the US and China during development trials.

2011-13, 2010-11, 2006-07. Cisco Systems: User Experience Researcher, Information Architect, and Designer

Lead User Experience Designer, Ease of Doing Business Initiative for Cisco Product Licensing

Redesigned customer UI experience for web and mobile access to Cisco's web-based self-service tool to register and manage product licenses. Reduced customer dependence on support calls, increased usage, increased the number of license management tasks, and provided online access to license information.

Led complete redesign of UI experience for Cisco's Global Operations Support Tool for handling all customers' product licensing issues. Decreased support call times by delivering efficient access to more relevant information.

Led redesign of the Video and Technology group's product tool used to enable use of all cable set top boxes.

Cisco Internal Support Remedy Tool: Evaluated the navigational structure, interaction behavior, and content during a usability performance evaluation, involving accessing and using the Cisco internal support tools with a special focus on the Support Remedy tool. Provided mockups and detailed redesign recommendations.

Online Technical Support UI: Evaluated the navigational structure, interaction behavior, and content of Cisco's Technical Support and Documentation website. Provided mockups and detailed redesign recommendations.

2007, 2010. NETGEAR: User Experience Researcher and Designer

Router UI Design and Evaluation: Led usability UI design and testing effort for NETGEAR Home and Small Business customers' routers and internet services. Evaluated and redesigned user interactions, content, and UI.

Network Device Firmware Update Utility: Designed the interface for NETGEAR Home and Small Business customers to automatically download and update router and adapter firmware. Designed the functional demo, templates, interaction style, content, look and feel, and style sheets (CSS) using HTML, Visio, and Paint. Created the specifications document for the developers.

1994 – 2011. Hewlett-Packard: User Experience Researcher and Interaction Designer, Human Factors Designer, Information Architect, and Usability Engineer

Global Usability Evaluation Process: Co-led effort to develop and implement a quick and cost-effective method for remote usability evaluations in which all parties and systems are remotely distributed around the US and the world.

HPUX, Linux, and Windows Physical and Virtual Server Management Web Tools: Effected multi-year continuous reductions in user time, effort, and errors; enabled users to better meet increased demands resulting from reduced workforce policies.

Directed usability efforts to test and redesign a wide range of tools to manage HPUX servers, created design recommendations, and worked with design teams to implement recommendations.

Designed, developed, and conducted focus groups, contextual inquiry, interaction analysis, program analysis, user profiles and task analysis, prototyping interviews, and market planning to generate user-centered design requirements.

HP Printer Management Web GUI: Led effort to standardize printer management UIs. Architected the information structure and content, redesigned the user interface layout.

HP Switch, Wireless Device Management, and Network Data Center Web GUI: Simplified deployment and management of switches, making it easier to manage large-scale datacenters. Led effort to create usability design standards, re-architected front panel layout and behavior, and created usability design requirements.

HP HW UI and Enclosure Designs for HPUX Mass Storage Devices, Fiber Channel Mux, and SureStore DAT Drives: Applied desk reviews, heuristic analysis, formal usability, and contextual inquiries to redesign support interactions in order to decrease service call times.

HP Business and Support Process Tools: Increased user satisfaction by reducing confusion, time on task, clicks required, and errors.

Created console for monitoring internet and call traffic for major telecommunications companies.

Designed prototypes to decrease call time, response time, and training for HP's product support call center.

Designed and prototyped the website and created the style guide to standardize HP's Business Outsourcing (the primary customer facing site to HP's business process expertise to help them build leaner, more adaptive enterprises by outsourcing non-core activities).

Architected information and redesigned UI; revamped process to update how HP manages procurement.

Improved UI to report software defects. Applied interface desk reviews with a web usability inspection and testing technique to provide interface redesign recommendations during development.

Designed information architecture and UI; built HP's Customer Interaction website used to record and display information from interviews, surveys, contextual inquiries, and site reports.

Improved channel partner access to sales configuration tools using A/B testing and prototyping.

Internal Employee Websites: Simplified access to information and services used in daily work life using focus groups, interface analysis, paper prototyping, desk reviews, interface inspections, and formal usability tests. Redesigned Photo.hp, HP's website that provided internet photo sharing. Reduced content clutter and simplified navigation to the Enterprise Systems Storage Division, an Employee Engineering Services Web Site, and a daily information service to quickly browse current and past events. Implemented curriculum planning, course registration, and an online tutorial for kernel debuggers. Designed and tested the website for users and site administrators. Facilitated the process for analysts to pull reports from market research databases.

1999 – 2000. iEngineer.com: User Experience Researcher, Information Architect, and Interaction Designer

Mechanical Engineering Collaboration Tool: Architected information structure and content; designed the user interface; wrote functional requirements and use cases; developed and implemented usability test plans.

1998 - 1999. Kaiser Permanente: User Experience Researcher and Usability Engineer

Referral Order Management System (ROMS) Web App: Provided user-centered analysis, design, and testing of a web browser-based physicians' referral management tool. Combined contextual inquiry, interaction analysis, interviews, user needs and task analysis to conduct a heuristic analysis and a formal usability test. Generated user-centered design requirements and mockups from the results.

Population Care Registry and Referral Order Management System GUI: Researched, designed, and tested a Windows NT-based Population Care management tool. Combined contextual inquiry, interaction analysis, interviews, user needs and task analysis to conduct informal paper-and-pencil remote usability test.

1998. Bay Networks: User Experience Researcher, Interaction Designer, Information Architect

Network Switch Management Embedded Web UI: Designed and evaluated the navigational structure, interaction behavior, and information architecture for a web browser interface to manage network switches.

1992 – 1994. Boeing: Human Factors Analyst and Interaction Designer

Advanced Avionics Design: Evaluated designs for advanced avionics interfaces and cockpits.

1984 – 1994. NASA Ames (Sterling Software, SJSU Foundation): Human Factors / Research Specialist IV

NASA TLX: Developed internationally acclaimed subjective and objective multidimensional rating scale, achieving what many had unsuccessfully attempted.

MIDAS (Man-Machine Interface Design and Analysis System): Prototyped interfaces and programmed simulations of human performance and workload models in LISP and CLOS.

Human Performance and Workload Research: Developed performance and workload simulation models and decision aids; improved training on infrared image interpretation for the Israeli Air Force; helped improve the UI for the Space Station orbital refueling system.

Additional Projects

- 2010. Parasoft: User Experience Designer, Information Architect.** Concerto Project Management Web App: Iteratively worked with customers to redesign and prototype the Concerto UI layout and interactions; created Concerto interface detailed design specification.
- 2003. Trend Micro: User Researcher and Designer, Usability Engineer.** Server Anti-Virus and Spam Tools: Developed, conducted, and reported on new user interface designs for integrating anti-virus and anti-spam functionality for small business server environments.
- 2000. PhotoLoft.com: UI Designer.** PhotoLoft Website: Applied user-centered methods to architect the information structure and content and to mockup the new design layout and site behavior.
- 2000. WorkSpace and LUTRIS Technologies: User Experience Researcher and Designer.** Employee Management Portal and Web Application: Applied user-centered methods to architect the information structure and content and to design and mockup the user interface layout.
- 1998. Lumina Decision Systems (Ask Jeeves, Inc.): User Interaction Designer.** Personal Decision Expert: Conducted a heuristic review of a web decision support system to help users find desired internet items based on a complex evaluation of personal decision criteria.
- 1998. Seagull Technology: Human Factors Engineer / Programmer.** Moving Map Display: Developed Object Oriented SW design of a general aviation map display for a NASA SBIR.
- 1997. Extensity, Inc: User Interaction Designer.** Corporate Expense Reporting Software: Applied desk reviews with heuristic analysis and user-centered task analysis to generate a PowerPoint presentation of interface redesign recommendations for the next-generation architecture and interface design.
- 1995. Interface Technologies Corp: Human Factors Engineer.** IVEPSS: Defined requirements for a virtual reality simulation interface.
- 1995. Intuit: User Experience Researcher and Usability Engineer.** Quicken vs. Microsoft Money comparative test: Designed, conducted, and analyzed competitive usability test.
- 1994 – 1995. Symantec Corp: User Experience Researcher and Usability Engineer.** DiskLock Personal & DiskLock Administrator: Conducted usability tests of a Mac and a PC security administrator and personal security product.
- 1993. City of Richmond: Human Factors Analyst.** Richmond 911 Project: Analyzed human-computer interaction for command and control stations.
- 1987. Martin Marietta: Human Engineer and MANPRINT Debriefing (User Research).** Apache and OH-58D Army Aviation Scout Test II, U.S. Army Weapons Testing Center, Ft. Hunter-Liggett, CA: Operationally field-tested and evaluated advanced designs of avionics interfaces and cockpit layouts.

AFFILIATIONS

HFES (Human Factors and Ergonomics Society)

BACHFES (Bay Area Chapter of HFES)

BayCHI (Bay Area Chapter of Computer-Human Interaction)

UPA (Usability Professionals Association)

ACM/SIGCHI (Association of Computing Machinery/Special Interest Group on Computer-Human Interaction)

IAI (Information Architecture Institute)

PUBLICATIONS

1. Fuget, Craig, D; Staveland, Lowell, E; Basrur, Hemanth.(2006). "Customer Centered Design" Method for Remote Usability Testing. CHI 2006, April 22–27, Montreal, Canada.
2. Staveland, L. E, Kenny, Caitlin; Fern, Lisa; Shively, Jay (In Press). "UAS in the NAS: Automation and Collision Avoidance in Congested Airspace". (NASA Contractor Report TBD). NASA, Ames Research Center, Moffett Field, CA.
3. Staveland, L. E. (1994). "Man-Machine Integration Design and Analysis System (MIDAS) Task Loading Model (TLM) Experimental and Software Detailed Design Report". (NASA Contractor Report 177640). NASA, Ames Research Center, Moffett Field, CA.
4. Staveland, L. E. (1991). "MIDAS-TLM: MIDAS Task Loading Model." Proceedings of the 1991 IEEE International Conference on Systems, Man, and Cybernetics. (pp. 1219-1224). University of Virginia, Charlottesville, VA.
5. Staveland, L. E. (1991). "Task Loading Model." In Army-NASA Aircrew/Aircraft Integration Program: Phase V (A3I) Man-Machine Integration Design and Analysis System (MIDAS) Software Concept Document (NASA Contractor Report 177596, pp. 56 - 59). Sterling Federal Systems Inc, Palo Alto, CA.
6. Staveland, L. E., Murray, J., Bushnell, D., and Shankar, R. (1990). "Complex Man- Machine Systems Simulation: Evaluating Design Alternatives." Eighth National Conference on Artificial Intelligence: AAAI Workshop On Artificial Intelligence and Simulation, Norman R. Nielsen (Chair). Boston, MA.
7. Foyle, D. C. and Staveland, L. E. (1990). "Human Object Recognition as a Function of Display Parameters Using Television and Infrared Imagery." SID International Symposium Digest of Technical Papers, XXI.
8. Staveland, L. E. (1988). "Combinatorial Rules for Generating Workload Ratings." Unpublished master's thesis, San Jose State University, San Jose, CA.
9. Staveland, L. E. (1989). "Combinatorial Rules for Generating Workload Ratings." Proceeding of the 23rd Annual conference on Manual Control. Massachusetts Institute of Technology, Cambridge, MA.
10. Brickner, M. S. and Staveland, L. E. (1989). "Comparison of Thermal (FLIR) and Television Images." Proceedings of the Fifth International Symposium on Aviation Psychology. R.S. Jensen (Ed.).
11. Hart, S. G. and Staveland, L. E. (1988). "Development of NASA-TLX (Task Load Index): Results of Empirical and Theoretical Research." Human Mental Workload, P. A. Hancock and N. Meshkati (Eds.). North Holland Press, Amsterdam.
12. Staveland, L. E., Yeh, Y. Y., and Hart, S. G. (1986). "Memory and Subjective Workload Assessment." Proceeding of the 21st Annual Conference on Manual Control. Ohio State University, Columbus, OH.