

# PHILIP TED KORTUM

RICE UNIVERSITY, PSYCHOLOGICAL SCIENCES, SEWALL HALL 488, MS-25  
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## EDUCATION

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Ph.D. in Biomedical Engineering 1994  
Dissertation: Light Adaptation Mechanisms in Spatial Vision  
Advisor: Wilson S. Geisler (Member, National Academy of Sciences)  
*University of Texas at Austin, Austin, TX*

Master of Science in Industrial Engineering 1990  
Concentration in Human Factors  
*Northeastern University, Boston, MA*

Bachelor of Science in Industrial Engineering 1985  
*University of Nebraska, Lincoln, NE*

## PROFESSIONAL EXPERIENCE

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**2005 - Present Rice University.** Houston, TX  
*Professor, Department of Psychological Sciences, 2023-present*  
*Associate Professor, Department of Psychological Sciences, 2017-2023*  
*Assistant Professor, Department of Psychology, 2012-2017*  
*Professor in the Practice, Faculty Fellow, Department of Psychology, 2005-2012*

**1996 - 2005 SBC Laboratories.** Austin, TX  
*Lead Member of Technical Staff, Human Factors Engineering, 2001-2005*  
*Principal Member of Technical Staff, Human Factors Engineering, 2000-2001*  
*Senior Member of Technical Staff, Human Factors Engineering, 1999-2000*  
*Member of Technical Staff, Human Factors Engineering, 1996-1999*

Responsible for conducting applied Human Factors research and development in all areas of telecommunications. Key areas of work have included:

### **Development of consumer usable broadband access systems**

- Designed and developed 5 major releases of the DSL Consumer Self-Installation Kit, including software interface, instructional material, packaging, and physical hardware design. User success rates rose from 10% to >95% during this time. Kit progressed from over 150 pages of instructional material to an interactive computer-based instruction method. Ran human factors studies on over 700 users performing DSL installations
- Kit was awarded the 2001 International Engineering Consortium InfoVision Award
- Designed and developed the second-generation DSL Gateway Self-Installation Kit

- Led the HF development effort on a consumer PC that had integrated DSL capability
- Participated in the development of SBC's two broadband entertainment offerings (HomeZone Satellite+DSL and LightSpeed Fiber-to-the-node/fiber-to-the-home, now branded as U-verse). Efforts included human factors design of the remote controls and the set-top hardware, specification of the user interaction models and design of the complete graphical user interface for both of these broadband systems

#### **Conducting applied research to support medium-and-near term business goals**

- Conducted ecologically-valid quality assessments of near-real-time video delivery to determine optimum DSL bandwidth requirements
- Conducted studies into user perceptions of Voice over IP. Conducted laboratory ITU P.800 studies, live field trial studies on a national network and longitudinal studies of CPE-based VoIP solutions
- Conducted research into users' perceptions of internet use under varying levels of bandwidth in an effort to understand DSL bandwidth requirements
- Conducted research into the dimensions along which users judged their overall web-surfing experience, as a function of the attributes of web page design and delivery
- Conducted collaborative research with the University of Texas Graduate School of Information into the serendipitous discovery of information while browsing and searching the internet
- Conducted collaborative research with the University of Texas Graduate School of Information into user perception of wait time while on hold when using telephone menu systems
- Initiated and coordinated a decade-long longitudinal study of the usability of SBC products and services through the global administration of a usability survey instrument
- Conducted longitudinal studies of user behavior while using SBC's first consumer internet portal, developing novel techniques for the visualization of the data
- Performed testing of numerous non-DSL broadband technologies to understand human perceptions of the various connection technologies
- Mentored graduate student (Rebecca Grier, University of Cincinnati) doctoral research into visual attention mechanisms and web page design. Research involved extensive use of an ERICA eye-tracking system for data collection

#### **Design, development and analysis of Web and Internet applications**

- Led the Human Factors effort in the design and development of the global information architecture for the first generation of SBC's corporate and affiliate web presence (SBC, Southwestern Bell, Pacific Bell). Efforts included needs analysis, categorization studies, prototyping and extensive lab testing
- Designed and developed SBC's first consumer internet portal
- Performed multiple projects to ensure compliance with universal design goals and government requirements (Section 508 of the Workforce Rehabilitation Act and Section 255 of the 1996 Telecommunications Act)
- Led the Human Factors effort in the design and development of SBC's first Ecommerce offering, the DSL self-ordering tool. Tool allowed users to qualify their location and computer and then order and configure DSL
- Performed testing of numerous web-based hardware and software solutions to ensure compliance with SBC Usability Standards. Performed design and development work with vendors to improve these products. Product categories evaluated include parental controls, virus protection, PC backup, content filtering, electronic yellow pages, advertising technologies, email appliances and web appliances
- Author of SBC's Web Design Guidelines

**1994 - 1996**      **University of Texas Center for Vision and Image Sciences.** Austin, TX  
*Post-Doctoral Research Fellow*

- Investigated the application of human vision capabilities and perceptions in the development of video display technologies. The research resulted in the development of a patented system for the display of highly compressed visual images in a perceptually loss-less fashion, using a Fourward Technologies (SRI) dual purkinje eye tracking system

**1985 - 1990**      **Raytheon Company.**      Waltham, MA  
*Manager, Radar and Ship Systems Industrial Engineering, 1988-1990*  
*Lead Industrial Engineer, Standard Missile Program, 1987-1988*  
*Associate Industrial Engineer, 1985-1987*

- Provided Technical and Managerial leadership for 16 engineers and graphic illustrators in the areas of manufacturing, human factors, and safety engineering
- Created paper and computer-based assembly instructional material for the manufacture of highly complex missile and radar systems
- Improved effectiveness, efficiency and safety of manufacturing through the development and implementation of user-centered tools and processes.
- As manager, had responsibility for budgeting and scheduling of existing industrial engineering work and the development of accurate estimates for proposed work

#### AWARDS AND HONORS

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- Faculty Fellow, Rice Center for Teaching Excellence, 2023
- Human Factors and Ergonomics Society Jack A. Kraft Innovator Award, 2020
- Sigma Xi, Scientific Research Honor Society, 2020
- Fellow, Association for Psychological Sciences (APS), 2019
- Fellow, Human Factors and Ergonomics Society (HFES), 2018
- Fellow, National Academy of Inventors (NAI), 2017
- Cletis Booher Service Award, HFES Houston Chapter, 2016
- Sarah A. Burnett Superior Teaching Award, 2015
- Sophia Meyer Farb Phi Beta Kappa Award for Teaching, 2014
- Led the Human Factors design for the DSL self-installation kit, which was awarded the International Engineering Consortium's Infovision Award, 2001
- SBC Laboratories Cabinet Award, Design of DSL self-installation kit, 2001
- SBC Network Planning and Engineering ROSS award for performance excellence, 2001
- SBC Laboratories Cabinet Award, Design of SBC E-channel portals, 2000
- SBC Laboratories Human Factors Outstanding Achievement Award, 2000
- SBC Laboratories Cabinet Award, Design of SBC consumer web portals, 1998
- SBC Laboratories Cabinet Award, Design of SBC's Internet offerings, 1996
- Alpha Pi Mu, National Industrial Engineering Honorary, Past President, Nebraska Chapter
- Psi Chi, National Psychology Honorary
- Eagle Scout, 1978

**Professional Service**

- Editor, User's Guides to Human Factors and Ergonomic Methods Series, 2017, 2018, 2019, 2020, 2021, 2022, 2023
- Editorial Board, Journal of User Experience (formerly Journal of Usability Studies), 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023
- Editorial Board, Journal of Election Technology and Systems, 2013, 2014, 2015
- President, Houston Chapter, Human Factors and Ergonomics Society, 2007-2008, 2017-2018
- Human Factors and Ergonomics Society Finance and Budget Committee, 2018, 2019, 2020, 2021, 2022
- Human Factors and Ergonomics Society COVID Crisis Committee, 2020, 2021
- Developed innovative new session format for Human Factors and Ergonomics Society Conference called Posters with Fellows. Chair, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020 (*Chats with Fellows* due to COVID), 2021, 2022, 2023
- Human Factors and Ergonomics Society Titans of Human Factors organizing committee and session moderator, 2021, 2022
- NASA Spacesuit User Interface Technologies for Students (SUITS) Challenge, Student Team Advisor, 2022-2023
- Human Factors and Ergonomics Society Paul M. Fitts Education Award Committee, 2016, 2017, 2018, 2019
- Human Factors and Ergonomics Society Education and Training Committee, 2014, 2015, 2016, 2017
- Human Factors and Ergonomics Society Ely Committee (best Human Factors paper), 2011, 2012, 2013, 2015
- Director (Seat 1), Houston Chapter, Human Factors and Ergonomics Society, 2010, 2011, 2012, 2013, 2014, 2015
- Chair, Human Factors and Ergonomics Society Communications Technical Group, 2004, 2005, 2006, 2007, 2008
- Executive Committee, Texas Regional Human Factors and Ergonomics Society Conference, 2008, 2011, 2014, 2017
- Executive Committee, Houston Human Factors and Ergonomics Society Conference, 2006, 2007, 2009, 2010, 2012, 2013, 2015, 2018, 2019, 2020, 2021, 2022, 2023
- Program Chair, Houston Human Factors and Ergonomics Society Conference, 2010, 2012, 2013, 2021, 2022
- Travis County Texas Elections Division STAR Voting System Design Team, 2012, 2013, 2014, 2015, 2016, 2017
- Conference Chair, Houston Human Factors and Ergonomics Society, 2006, 2019
- Conference Co-Chair, 6<sup>th</sup> Conference on Human Factors and the Web, 2000

## **University Service**

- Rice University, Co-Director, HCI/HF Professional Master's Program, 2018, 2019, 2020, 2021, 2022, 2023
- Rice University Faculty Advisor for the student Human Factors and Ergonomics Society Chapter, 2019, 2020, 2021, 2022, 2023
- Rice University, Director of Undergraduate Studies for Psychological Sciences, 2017, 2018, 2019, 2020, 2021, 2022, 2023
- Rice University Committee on Teaching, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021
- Rice University Faculty Conflicts Committee, 2013, 2014, 2015, 2016, 2017, 2018, 2019
- Rice University Psychology Undergraduate Research Pool Administrator, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2020, 2022, 2023
- Rice University Psychology Undergraduate Committee, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023
- Rice University Psychology Undergraduate Transfer Advisor, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023
- Led the effort to secure HFES accreditation for the Human Factors PhD program, 2017
- Led the effort to secure HFES accreditation for the Human Factors Professional Masters Program, 2018
- Rice University Social Science School Course Review Committee, 2017, 2019, 2020, 2021, 2022
- Rice University Primary caregiver leave policy for staff committee, Chair, 2023
- Rice University School of Social Sciences Faculty Advisory Committee, 2013, 2014, 2015
- Rice University Faculty Mentoring Program, 2018, 2019, 2022
- Rice University Faculty Owls Days Instructor, 2015
- Rice University Faculty Senate Executive Committee, 2009-2010
- Rice University Psi Chi International Psychology Honor Society Faculty Advisor, 2009, 2010
- Rice University Faculty Senate, 2005, 2006, 2007, 2008, 2009, 2010
- Rice University Childcare Provider Committee, 2007, 2008, 2009, 2010, 2011, 2012, 2013
- Rice University Admissions Office Faculty Phone-a-Thon, 2010
- Rice University Owl Days Speaker, 2010, 2013, 2019
- Rice University Vision Days Panel Speaker, 2013, 2015
- Rice University Psychology Graduate Committee, 2015, 2016
- Rice University Gardner Award Committee (Best Social Science Dissertation), 2015
- Rice University Faculty Senate Faculty Evaluations Committee, 2006-2007
- Rice University Faculty Senate Nominations and Elections Committee, 2005-2006, 2006-2007

## **Professional Affiliations**

- Member, Rice 360 Institute for Global Health
- Member, Human Factors and Ergonomic Society (HFES)
- Member, Association for Psychological Science (APS)
- Member, Association for Computing Machinery SIGCHI
- Member, Usability Experience Professionals Association (UXPA)

## Peer Review Contributions

- Ad Hoc Reviewer for: National Academies of Sciences, Engineering, and Medicine; Human Factors; Human-Computer Interaction; International Journal of Human Computer Interaction; Journal of Usability Studies; Applied Cognitive Psychology; Interacting with Computers; Scientific Reports; Behavior Research Methods, Instruments and Computers; Journal of Election Technology and Systems; International Journal of Mobile HCI; IEEE Transactions on Mobile Computing; International Journal of Engineering and Technology; Engineering Studies; BMC Medical Informatics and Decision Making; Frontiers; MobiSys; Journal of Medical Internet Research; Vaccine; Human Factors and Ergonomics Society Perception and Performance TG; Human Factors and Ergonomics Society Communications TG; Human Factors and Ergonomics Society Internet TG; Human Factors and Ergonomics Society Health Care TG; Human Factors and Ergonomics Society Surface Transportation TG; Human Factors and the Web; Association for Computing Machinery Computer-Human Interaction SIG; Wiley Publishing; Sage Publications; Cengage Publishers; NASA Human Research Program; Morgan-Kaufmann; McGraw-Hill, CRC Press; ACS Chemical Health.

## GRANTS AND FUNDING

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National Institutes of Health. CRISPR-Cas13-based rapid HIV-1 test. Co-PI. \$2,854,080. 2/23 – 1/28.

DoD: Defense Advanced Research Projects Agency (through VotingWorks). Advanced paper-based auditing techniques in deployed military settings. Co-PI. \$1,003,180. 10/22 – 10-24

Institute of Education Sciences. Efficient Education Research via the OpenStax Learning Platform. Co-PI. \$2,000,000. 8/21- 8/26.

National Science Foundation. SaTC:RAPID CNS-2033923: Optimizing vote-by-mail implementations on consumer grade equipment. Co-Investigator. \$200,000. 7/20 -7/23

National Science Foundation. REU Site: Translational Research in Psychological Sciences: Human Factors at Rice University. Role: Senior Personnel. \$264,077. 2018-2022.

Ford Motor Company University Research Program. Measuring Customers Trust with Autonomous Vehicles. Co-Investigator. \$100,000. 3/18 - 3/22.

Rice University ENRICH seed grant program. Aging in Place with Cognitive Impairment: Toward User-Centered Assistive Technologies, Co-Investigator. \$20,250. 4/29/20- 6/30/22

William and Flora Hewlett Foundation thought the MIT Election Data and Science Lab (MEDSL), Voter Detection of Anomalies on BMD Ballots. Co-Investigator. \$3,500. 6/19 – 6/21

Rice University COVID 19 Research Fund. Making voting safe for voters and poll workers: Meeting the Challenge of the COVID-19 Pandemic. Co-PI. \$43,300. 4/20-12/20

Rice University BRIDGE COVID 19 Research Fund. Measuring polling station waits in pandemic voting. Co-PI. \$3750. 4/20-12/20

Houston Solutions Lab, How Can a Human Factors Approach to System Design Make the Houston METRO Rail Safer? Co-PI. \$69,202. 2019-2021.

Rice University Department of Psychological Sciences, Seed Grant Program. Exploring the relationship between cognitive ability and the subjective assessment of usability. Co-Investigator. \$7,400. 2018-2019.

Rice University, Quality Enhancement Plan. Scaffolding Experiential Inquiry and Research into the Curriculum Phase II. Co-Investigator. \$27,500. 2018-2019.

Rice University, Inter-Disciplinary Excellence Award (IDEA). Toward Experience-Guided Design of Effective Assistive Devices. Co-Investigator. \$75,000. 2017-2018.

Rice University, Quality Enhancement Plan. Scaffolding Experiential Inquiry and Research into the Curriculum Phase 1 Planning Grant. Co-Investigator. \$10,000. 2017-2018.

National Science Foundation CNS-1409401. Voting Systems Architectures for Security and Usability. Co-PI. \$1,215,958. 2014-2019.

Cisco Systems – Usability of mobile applications. Research support funding of \$10,000. 2012-2013.

National Institute of Standards and Technology #60NANB12D249. Usability of e2e Voting Systems. PI. \$198,296. 2012-2014.

National Institute of Standards and Technology (through IDox). Voting Systems: Analysis of Auditory Ballot Interfaces. Co-PI. \$82,000. 2011-2013.

National Science Foundation #CNS-1049723. Usability of Voting Systems. PI. \$170,000. 2010-2013.

National Science Foundation #HCC-0803556. Understanding and Optimizing Wireless Mobile Computing for Underserved Urban Communities. Co-PI. \$569,000 total funding. 2008-2011.

ExxonMobil – Software Ergonomics and Usability. PI. \$39,700. 2009-2011.

United States Cancer Pain Relief Committee (through UTMDACC) Development of an Intelligent Monitoring System for Cancer Pain Using Bayesian Statistical Models. PI. \$62,361. 2009-2011.

ExxonMobil – Software Ergonomics. PI. \$33,000. 2008-2009.

Brown Teaching Grant – Human Factors of Non-Traditional Interfaces. \$2699. 2008.

Howard Hughes Medical Institute, Undergraduate Science Education – Beyond Traditional Borders. Collaborator. Grant total \$2,198,923. Collaboration total \$317,323. 2005-2009.

## COURSES TAUGHT

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- Introduction to Human Factors and Ergonomics Design PSYC 370: Fall 2005, Fall 2006, Fall 2007, Fall 2008, Fall 2009, Fall 2010, Fall 2011, Fall 2012, Fall 2013, Fall 2014, Fall 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019, Fall 2020, Fall 2021, Fall 2022, Fall 2023
- Methods in Human Computer Interaction PSYC 409/609: Spring 2007, Fall 2008, Spring 2011, Fall 2012, Spring 2014, Fall 2015, Fall 2017, Fall 2019, Fall 2021, Spring 2023, Fall 2023
- Human Factors of Non-Traditional Interfaces PSYC 462/662: Fall 2007, Spring 2010, Spring 2013, Fall 2014, Fall 2016, Fall 2018, Spring 2022

- Medical Human Factors PSYC 463/663: Spring 2009, Spring 2012, Spring 2014, Spring 2016, Spring 2018, Spring 2020, Spring 2021, Fall 2022
- Usability Assessment PSYC 464/664: Spring 2015, Spring 2017, Spring 2019, Fall 2020
- HF/HCI Capstone PSYC 600: Spring 2021, Spring 2022, Spring 2023
- Statistical Methods for Psychology PSYC 339: Spring 2006, Fall 2006, Spring 2008, Fall 2009, Fall 2010, Fall 2011
- Seminar in Human Computer Interaction PSYC 531: Spring 2007, Spring 2008, Fall 2009, Fall 2010, Spring 2012, Fall 2013, Fall 2014, Fall 2015, Spring 2017, Fall 2018, Spring 2022, Fall 2023
- Social and Policy Analysis Capstone SOPA 400 (Team Advisor). Fall 2023, Spring 2023
- Supervised Research PSYC 485/CSCI 390 (147 students) Includes 6 Honors students, 5 SSURE winners, and 1 Brelsford Award Winner
- Rice Century Scholar Advisor (2 students)
- Graduate student committees served on: 48
- Graduate student committees chaired: 16

## PUBLICATIONS

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**Google Scholar metrics: Citations: 16,433 h-index: 44 i10-index: 109**

Kortum, P., Byrne, M.D., Azubike, C.O., & Roty, L.E. (submitted). Can Voters Detect Errors on Their Printed Ballots? Absolutely. Submitted to *Journal of Election Administration Research and Practice*.

Asma, E., Heenan, M.L., Banda, G., Kirby, R., Mangwiro, L., Acemyan, C.Z., Palamountain, K.M., Kortum, P., Kawaza, K., Oden, Z.M., and Richards-Kortum, R. (in press). Avoid Equipment Graveyards: Rigorous Process to Improve Identification and Procurement of Effective, Affordable, and Usable Newborn Devices in Low-Resource Hospital Settings. *BMC Pediatrics*.

Wilczewski, H., Mulfinger, E., Oswald, F.L., and Kortum, P. (in press). Extending a framework of individual differences and usability: The role of cognitive ability. *International Journal of Human-Computer Interaction*.

Ngo, C., Acemyan, C.Z., & Kortum, P. (in press) Evaluating the Usability of Common Warnings Across Industries Using the System Usability Scale. *Proceedings of the Human Factors and Ergonomics Society*.

Robertson, I.W., Kortum, P., Acemyan, C.Z., & Oswald, F.L. (in press). The Development of the Trust in Self-driving Vehicles Scale (TSDV). *Proceedings of the Human Factors and Ergonomics Society*.

Rice, R., Aagrawal, S., & Kortum, P. (in press). Effects of task difficulty and presentation order in subjective usability measurement. *Proceedings of the Human Factors and Ergonomics Society*.

Stewart, K., Kortum, P., & Byrne, M.D. (in press). Usability of ranked-choice ballots. *Proceedings of the Human Factors and Ergonomics Society*.

Robertson, I.W. and Kortum, P. (in press). The Usability of Face Coverings Used to Prevent the Spread of COVID-19. *Human Factors*. <https://doi.org/10.1177/00187208211051131>

- Kortum, P. (in press). When Human Factors Fails: Intentional and Unintentional Bad Designs. *Ergonomics in Design*. <https://doi.org/10.1177/10648046211033901>
- Matin, S., Asma, E., Allen, E., Mangwiro, L., Mjumira, R., Valle, M., Acemyan, C., Oden, M., Kawaza, K., Kortum, P., and Richards-Kortum, R. (2023). Proxy Users for Usability Testing of Medical Devices for Use in Sub-Saharan Africa. In *Proceedings of the International Symposium on Human Factors and Ergonomics in Health Care*, 12(1), pp. 208-212. Sage CA: Los Angeles, CA: SAGE Publications.
- Petersen, C. M., DeLucia, P. R., Oswald, F. L., Kortum, P., Leal, A., Pickens, S., & Hekel, B. (2023). Toward user-centered assistive technologies for aging in place with cognitive impairment: A survey. *Disability and Rehabilitation: Assistive Technology*. <https://doi.org/10.1080/17483107.2023.2217848>
- Shanklin, R., Kortum, P., & Robertson, I.W. (2022). Rating Product Satisfaction by Watching Others Using Video. *Proceedings of the Human Factors and Ergonomics Society*, 66(1), 1003-1007. Los Angeles, CA: SAGE Publications.
- Shanklin, R., Kortum, P., & Oswald, F.L. (2022). USE-Lite: Psychometric Item Reduction of the USE (Usefulness, Satisfaction, and Ease of Use) Questionnaire. *Proceedings of the Human Factors and Ergonomics Society*, 66(1), 1882-1886. Los Angeles, CA: SAGE Publications.
- Robertson, I.W., Oswald, F.L., & Kortum, P. (2022). Integrating Usability into the Design of Student Ratings of Teachers: The Teaching and Instructional Measure of Effectiveness (TIME). *Proceedings of the Human Factors and Ergonomics Society* 66(1), 993-997. Los Angeles, CA: SAGE Publications.
- Kortum, P. (2022). Where's my jetpack? Waiting for the revolution in statistical analysis software interfaces, but going in the wrong direction. *ACM Interactions*, 29(5), 68-71.
- Acemyan, C.Z., Kortum, P., and Oswald, F.O. (2022). The Trust in Voting Systems (TVS) Measure. *International Journal of Technology and Human Interaction* 18(1), 1-23.
- Acemyan, C.Z, Kortum, P., Byrne, M.D. & Wallach, D. (2022). Summative Usability Assessments of STAR-Vote: A Cryptographically Secure Voting System That Has Been Proven to Be Easy to Use. *Human Factors*, 64 (5), 866-889.
- Sharman, J., Wallach, D.S., Kortum, P., and Acemyan, C.Z. (2021). Good Examples help; Bad Tools Hurt: Lessons for teaching computer security skills to undergraduates. *International Journal of Computer Science Education in Schools* 5(2), 74-92.
- Johnson, J., Asma, E., Acemyan, C.Z., Oden, M., Richards-Kortum, R., and Kortum, P. (2021). Development and use of heuristics to evaluate neonatal medical devices for use in low resource settings. *Journal of Usability Studies* 17(4), 12-20.
- Kortum, P. and Chaparro, B. (2021). Preface to the Special Issue on the Science Behind Usability and UX. *Human Factors*, 63(5), 733-735. Los Angeles, CA: SAGE Publications. <https://doi.org/HF1026906>.
- Garcia, K., Robertson, I., & Kortum, P. (2021). A Comparison of Presentation Mediums for the Study of Trust in Autonomous Vehicles. *Proceedings of the Human Factors and Ergonomics Society*, 65(1), 878-882. Los Angeles, CA: SAGE Publications.
- Kortum, P., Byrne, M.D., & Whitmore, J. (2021). Voter Verification of BMD Ballots Is a Two-Part Question: Can They? Mostly, They Can. Do They? Mostly, They Don't. *Election Law Journal* 20(3), 243-253. Also available at <https://arxiv.org/abs/2003.04997>

Kortum, P. and Acemyan, C.Z. (2021). The impact of Keyboard type on users' perceptions of password strength. *International Journal of Technology and Human Interaction* 17(1), 90-104.

Kortum, P., Acemyan, C.Z., and Oswald, F.O. (2021). Is it time to go positive? Assessing the positively worded System Usability Scale (SUS). *Human Factors*, 63(5), 987-998.

Robertson, I.W., Kortum, P., Oswald, F.L., & Acemyan, C.Z. (2020). Novices Perform Like Experts on a closed Card Sort but Not on an Open Card Sort. *Proceedings of the Human Factors and Ergonomics Society* 64(1), Santa Monica, CA: Human Factors and Ergonomics Society.

Shanklin, R., Kortum, P. & Acemyan, C.Z. (2020). Adaptation of Heuristic Evaluations for the Physical Environment. *Proceedings of the Human Factors and Ergonomics Society* 64(1), Santa Monica, CA: Human Factors and Ergonomics Society.

Gao, M., Kortum, P. and Oswald, F.L. (2020). Multi-Language Toolkit for the System Usability Scale. *International Journal of Human-Computer Interaction*, 36(20), 1883-1901

Robertson, I.W. and Kortum, P. (2020). Validity of Three Discount Methods for Measuring Perceived Usability. *Journal of Usability Studies*, 16(1), 13-28.

Kortum, P. & Byrne, M.D. (2020). Making Votes Count. Why It's as Much Psychology (and Ballot Design) As Security. *APS Observer*, 33(8).

Xiong, J., Acemyan, C.Z. and Kortum, P. (2020). SUSapp: A free mobile application that makes the SUS easier to use in research. *Journal of Usability Studies*, (15)3, 133-144.

Kortum, P., Stein, R., Acemyan, C.Z., Vann, E., & Wallach, D. (2020). How Human Factors Can Help Preserve Democracy in the Age of Pandemics. *Human Factors*, 62(7), 1077-1086.

Kim, S.Y., Clark, J.P., Kortum, P., and O'Malley, M.K. (2019). The Influence of Cue Presentation Velocity on Skin Stretch Perception. *World Haptics 2019*, 485-490.

Kortum, P. and Acemyan, C.Z. (2019). An examination of the effort hypothesis for the perceived strength of passwords. *Proceedings of the Human Factors and Ergonomics Society* 63(1), Santa Monica, CA: Human Factors and Ergonomics Society.

Robertson, I. and Kortum, P. (2019). An Investigation of Different Methodologies for Rating Product Satisfaction. *Proceedings of the Human Factors and Ergonomics Society* 63(1), Santa Monica, CA: Human Factors and Ergonomics Society.

Bernhard, M., Sharman, J., Kumar, D., Acemyan, C.Z, Kortum, P., Wallach, D. & Halderman, A. (2019). On the Usability of HTTPS Deployment. In *CHI Conference on Human Factors in Computing Systems Proceedings*. ACM, New York, NY, USA.

Kortum, P. and Acemyan, C.Z. (2019). Usability assessments of mobile applications as a function of geographic location. *International Journal of Mobile Human Computer Interaction*, 11(1), 1-15.

Grier, R. A., Allanson, K., Bangor, A., Kortum, P., Acemyan, C.Z., & Oswald, F.L. (2018). Using the SUS: Lessons Learned & Forward-looking Research. In *Proceedings of the Human Factors and Ergonomics Society*, 62(1), pp. 2037-2042. Santa Monica, CA: Human Factors and Ergonomics Society.

- Gao, M. and Kortum, P. (2018). Psychometric evaluation of the Usefulness, Satisfaction, and Ease-of-use questionnaire. In *Proceedings of the Human Factors and Ergonomics Society*, 62(1), pp. 1414-1418. Santa Monica, CA: Human Factors and Ergonomics Society.
- Acemyan, C.Z. and Kortum, P. (2018). 2FA Might Be Secure, But It's Not Usable: A Summative Usability Assessment of Google's Two-factor Authentication (2FA) Methods. In *Proceedings of the Human Factors and Ergonomics Society*, 62(1), pp. 1141-1145. Santa Monica, CA: Human Factors and Ergonomics Society.
- Robertson, I. and Kortum, P. (2018). Extraneous Factors in Usability Testing: Evidence of Decision Fatigue During Sequential Usability Judgments. In *Proceedings of the Human Factors and Ergonomics Society*, 62(1), pp. 1409-1413. Santa Monica, CA: Human Factors and Ergonomics Society.
- Kortum, P. and Acemyan, C.Z. (2018). The impact of geographic location on the subjective assessment of system usability. *International Journal of Human-Computer Interaction*, (35)2, 123-130.
- Acemyan, C.Z. and Kortum, P. (2018). Does the Type of Presentation Medium Impact Assessments of the Built Environment? An Examination of Environmental Usability Ratings Across Three Modes of Presentation. *Journal of Environmental Psychology*, 56, 30-35.
- Acemyan, C.Z. and Kortum, P. (2017). Assessing the usability of the Hart InterCivic eSlate during the 2016 presidential election. *Proceedings of the Human Factors and Ergonomics Society*, 61(1), pp. 1404-1408. Santa Monica, CA: Human Factors and Ergonomics Society.
- Robertson, I. and Kortum, P. (2017). The Effect of cognitive fatigue on subjective usability scores. *Proceedings of the Human Factors and Ergonomics Society*, 61(1), pp. 1461-1465. Santa Monica, CA: Human Factors and Ergonomics Society.
- Gao, M. and Kortum, P. (2017). Measuring the usability of home healthcare devices using retrospective measures. *Proceedings of the Human Factors and Ergonomics Society*, 61(1), pp. 1281-1285. Santa Monica, CA: Human Factors and Ergonomics Society.
- Kortum, P. and Oswald, F. (2017). The impact of personality on the subjective assessment of usability. *International Journal of Human-Computer Interaction*, 34(2), 177-186.
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- Robertson, I, Oswald, F.L. & Kortum, P. (2017). *Detecting voting errors – What’s personality got to do with it?* Southwestern Regional Human Factors and Ergonomics Society Conference, San Antonio, TX.
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- Callan, A., & Kortum, P. (2014). *Recency effects in the measurement of multiple tasks using the System Usability Scale*. Southwestern Regional Human Factors and Ergonomics Society Conference, College Station, TX.
- Neal, T., & Kortum, P. (2014). *An assessment of users’ ability to prospectively judge usability*. Southwestern Regional Human Factors and Ergonomics Society Conference, College Station, TX. \*(Winner, best student research poster)
- Kortum, P. (2014). *(Un)usable computing*. Scientia Lecture Series, ‘The Power of Ideas’, Rice University
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