

Jacob O. Wobbrock, Ph.D.

Curriculum Vitae

Associate Professor, Information School
 Adjunct Associate Professor, Computer Science & Engineering
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RESEARCH INTERESTS

Human-Computer Interaction (HCI): I combine computer science, interaction design, and psychology to investigate novel user interface technologies, input and interaction techniques, human performance with computing systems, and accessible, mobile & surface computing interfaces.

EDUCATION

Ph.D. Human-Computer Interaction, Carnegie Mellon University · 2001 – 2006

Official concentration in Computer Science. Committee: Brad A. Myers (chair), Scott E. Hudson, Jennifer Mankoff, Richard C. Simpson, and Shumin Zhai.

M.S. Computer Science, Stanford University · 1998 – 2000

Official concentration in Human-Computer Interaction. Advisor: Terry Winograd.

B.S. with Honors, Symbolic Systems, Stanford University · 1994 – 1998

Official concentration in Human-Computer Interaction. Advisor: Thomas Wasow.

PUBLICATIONS

Refereed Journal Articles

- [J.9] Wobbrock, J.O., Kane, S.K., Gajos, K.Z., Harada, S. and Froehlich, J. (2011). **Ability-Based Design: Concept, principles and examples.** *ACM Transactions on Accessible Computing* 3 (3), pp. 9:1-9:27.
- [J.8] Gajos, K.Z., Weld, D.S. and Wobbrock, J.O. (2010). **Automatically generating personalized user interfaces with SUPPLE.** *Artificial Intelligence* 174 (12-13), pp. 910-950.
- [J.7] Wobbrock, J.O., Myers, B.A. and Aung, H.H. (2008). **The performance of hand postures in front- and back-of-device interaction for mobile computing.** *International Journal of Human-Computer Studies* 66 (12), pp. 857-875.
- [J.6] Wobbrock, J.O. and Gajos, K.Z. (2008). **Goal crossing with mice and trackballs for people with motor impairments: Performance, submovements, and design directions.** *ACM Transactions on Accessible Computing* 1 (1), pp. 4:1-4:37.
- [J.5] Wobbrock, J.O. and Myers, B.A. (2008). **Enabling devices, empowering people: The design and evaluation of Trackball EdgeWrite.** *Disability and Rehabilitation: Assistive Technology* 3 (1-2), pp. 35-56.
- [J.4] Wobbrock, J.O. and Myers, B.A. (2006). **Analyzing the input stream for character-level errors in unconstrained text entry evaluations.** *ACM Transactions on Computer-Human Interaction* 13 (4), pp. 458-489.
- [J.3] Wobbrock, J.O., Aung, H.H., Myers, B.A. and LoPresti, E.F. (2005). **Integrated text entry from power wheelchairs.** *Behaviour and Information Technology* 24 (3), pp. 187-203.
- [J.2] Myers, B.A., Nichols, J., Wobbrock, J.O. and Miller, R.C. (2004). **Taking handheld devices to the next level.** *IEEE Computer* 36 (12), pp. 36-43.
- [J.1] Heckman, C.E. and Wobbrock, J.O. (1999). **Liability for autonomous agent design.** *Journal of Autonomous Agents and Multi-Agent Systems* 2 (1), pp. 87-103.

Invited Articles

- [I.2] Findlater, L. and Wobbrock, J.O. (2012). **From plastic to pixels: In search of touch-typing touchscreen keyboards.** *Interactions* 19 (3), May + June 2012, pp. 44-49.
- [I.1] Wobbrock, J.O., Ko, A.J. and Kientz, J.A. (2009). **Reflections on the future of iSchools from inspired junior faculty.** *interactions* 16 (5), September + October 2009, pp. 69-71.

Refereed Conference Papers^{1†} (Full)

- [C.53] Azenkot, S., Wobbrock, J.O., Prasain, S. and Ladner, R.E. (2012). **Input Finger Detection for nonvisual touch screen text entry in *Perkinput***. Proceedings of Graphics Interface (GI '12). Toronto, Ontario: Canadian Information Processing Society. To appear. ^[38%]
- [C.52] Levy, D.M., Wobbrock, J.O., Kaszniak, A.W. and Ostergren, M. (2012). **The effects of mindfulness meditation training on multitasking in a high-stress information environment**. Proceedings of Graphics Interface (GI '12). Toronto, Ontario: Canadian Information Processing Society. To appear. ^[38%]
- [C.51] Evans, A.C. and Wobbrock, J.O. (2012). **Taming wild behavior: The Input Observer for obtaining text entry and mouse pointing measures from everyday computer use**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '12). New York: ACM Press, pp. 1947-1956. ^[23%]
- [C.50] Goel, M., Findlater, L. and Wobbrock, J.O. (2012). **WalkType: Using accelerometer data to accommodate situational impairments in mobile touch screen text entry**. Proceedings of the ACM Conference on Human Factors in Computing System (CHI '12). New York: ACM Press, pp. 2687-2696. ^[23%] [HONORABLE MENTION PAPER.](#)
- [C.49] Findlater, L. and Wobbrock, J.O. (2012). **Personalized input: Improving ten-finger touchscreen typing through automatic adaptation**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '12). New York: ACM Press, pp. 815-824. ^[23%]
- [C.48] Chilana, P.K., Ko, A.J. and Wobbrock, J.O. (2012). **LemonAid: Selection-based crowdsourced contextual help for web applications**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '12). New York: ACM Press, pp. 1549-1558. ^[23%]
- [C.47] Dixon, M., Fogarty, J. and Wobbrock, J.O. (2012). **A general-purpose target-aware pointing enhancement using pixel-level analysis of graphical interfaces**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '12). New York: ACM Press, pp. 3167-3176. ^[23%]
- [C.46] Tran, J.J., Kim, J., Chon, J., Riskin, E.A., Ladner, R.E. and Wobbrock, J.O. (2011). **Evaluating quality and comprehension of real-time sign language video on mobile phones**. Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '11). New York: ACM Press, pp. 115-122. ^[30%]
- [C.45] Avrahami, D., Wobbrock, J.O. and Izadi, S. (2011). **Portico: Tangible interaction on and around a tablet**. Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '11). New York: ACM Press, pp. 347-356. ^[25%]
- [C.44] Kane, S.K., Morris, M.R., Perkins, A.Z., Wigdor, D., Ladner, R.E., and Wobbrock, J.O. (2011). **Access Overlays: Improving non-visual access to large touch screens for blind users**. Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '11). New York: ACM Press, pp. 273-282. ^[25%]
- [C.43] Harada, S., Wobbrock, J.O. and Landay, J.A. (2011). **Voice Games: Investigation into the use of non-speech voice input for making computer games more accessible**. Proceedings of the 13th IFIP TC13 Int'l Conference on Human-Computer Interaction (INTERACT '11). Lecture Notes in Computer Science, vol. 6946/2011. Heidelberg, Germany: Springer, pp. 11-29. ^[27%]
- [C.42] Wobbrock, J.O., Shinohara, K. and Jansen, A. (2011). **The effects of task dimensionality, endpoint deviation, throughput calculation, and experiment design on pointing measures and models**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '11). New York: ACM Press, pp. 1639-1648. ^[26%]
- [C.41] Findlater, L., Wobbrock, J.O. and Wigdor, D. (2011). **Typing on flat glass: Examining ten-finger expert typing patterns on touch surfaces**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '11). New York: ACM Press, pp. 2453-2462. ^[26%] [HONORABLE MENTION PAPER.](#)
- [C.40] Shinohara, K. and Wobbrock, J.O. (2011). **In the shadow of misperception: Assistive technology use and social interactions**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '11). New York: ACM Press, pp. 705-714. ^[26%] [BEST PAPER WINNER.](#)

¹Unlike in many academic fields, premiere conferences in Human-Computer Interaction (e.g., CHI, UIST) are highly selective venues intended for archival papers only. These conferences exceed many HCI journals in their selectivity, visibility, and impact. For a study of the impact of ACM conference proceedings, see <http://portal.acm.org/citation.cfm?id=1743546.1743569>.

[†]Acceptance rates appear in superscript brackets when available.

- [C.39] Azenkot, S., Prasain, S., Borning, A., Fortuna, E., Ladner, R.E. and Wobbrock, J.O. (2011). **Enhancing independence and safety for blind and deaf-blind public transit riders.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '11). New York: ACM Press, pp. 3247-3256. ^[26%]
- [C.38] Kane, S.K., Wobbrock, J.O. and Ladner, R.E. (2011). **Usable gestures for blind people: Understanding preference and performance.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '11). New York: ACM Press, pp. 413-422. [🏆 BEST PAPER WINNER.](#) ^[26%]
- [C.37] Tran, J.J., Johnson, T.W., Kim, J., Rodriguez, R., Yin, S., Riskin, E.A., Ladner, R.E. and Wobbrock, J.O. (2010). **A web-based user survey for evaluating power saving strategies for deaf users of MobileASL.** Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '10). New York: ACM Press, pp. 115-122. ^[31%]
- [C.36] Findlater, L., Jansen, A., Shinohara, K., Dixon, M., Kamb, P., Rakita, J. and Wobbrock, J.O. (2010). **Enhanced area cursors: Reducing fine-pointing demands for people with motor impairments.** Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '10). New York: ACM Press, pp. 153-162. ^[18%]
- [C.35] Rosenthal, S., Kane, S.K., Wobbrock, J.O. and Avrahami, D. (2010). **Augmenting on-screen instructions with micro-projected guides: When it works, and when it fails.** Proceedings of the ACM Conference on Ubiquitous Computing (UbiComp '10). New York: ACM Press, pp. 203-212. ^[19%]
- [C.34] Ko, A.J. and Wobbrock, J.O. (2010). **Cleanroom: Edit-time error detection with the uniqueness heuristic.** Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC '10). Washington, D.C.: IEEE Computer Society, pp. 7-14. [🏆 BEST PAPER WINNER.](#) ^[29%]
- [C.33] Morris, M.R., Wobbrock, J.O. and Wilson, A.D. (2010). **Understanding users' preferences for surface gestures.** Proceedings of Graphics Interface (GI '10). Toronto, Ontario: Canadian Information Processing Society, pp. 261-268. ^[39%]
- [C.32] Anthony, L. and Wobbrock, J.O. (2010). **A lightweight multistroke recognizer for user interface prototypes.** Proceedings of Graphics Interface (GI '10). Toronto, Ontario: Canadian Information Processing Society, pp. 245-252. ^[39%]
- [C.31] Chilana, P.K., Wobbrock, J.O. and Ko, A.J. (2010). **Understanding usability practices in complex domains.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '10). New York: ACM Press, pp. 2337-2346. ^[22%]
- [C.30] Kane, S.K., Jayant, C., Wobbrock, J.O. and Ladner, R.E. (2009). **Freedom to roam: A study of mobile device adoption and accessibility for people with visual and motor disabilities.** Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '09). New York: ACM Press, pp. 115-122. ^[31%]
- [C.29] Kane, S.K., Avrahami, D., Wobbrock, J.O., Harrison, B., Rea, A., Philipose, M. and LaMarca, A. (2009). **Bonfire: A nomadic system for hybrid laptop-tabletop interaction.** Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '09). New York: ACM Press, pp. 129-138. ^[19%]
- [C.28] Cherniavsky, N., Chon, J., Wobbrock, J.O., Ladner, R.E. and Riskin, E.A. (2009). **Activity analysis enabling real-time video communication on mobile phones for deaf users.** Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '09). New York: ACM Press, pp. 79-88. ^[19%]
- [C.27] Wobbrock, J.O., Fogarty, J., Liu, S., Kimuro, S. and Harada, S. (2009). **The Angle Mouse: Target-agnostic dynamic gain adjustment based on angular deviation.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '09). New York: ACM Press, pp. 1401-1410. ^[24%]
- [C.26] Wobbrock, J.O., Morris, M.R. and Wilson, A.D. (2009). **User-defined gestures for surface computing.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '09). New York: ACM Press, pp. 1083-1092. [🏆 BEST PAPER NOMINEE.](#) ^[24%]
- [C.25] Harada, S., Wobbrock, J.O., Malkin, J., Bilmes, J. and Landay, J.A. (2009). **Longitudinal study of people learning to use continuous voice-based cursor control.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '09). New York: ACM Press, pp. 347-356. ^[24%]
- [C.24] Harada, S., Lester, J., Patel, K., Saponas, T.S., Fogarty, J., Landay, J.A. and Wobbrock, J.O. (2008). **VoiceLabel: Using speech to label mobile sensor data.** Proceedings of the ACM Int'l Conference on Multimodal Interfaces (ICMI '08). New York: ACM Press, pp. 69-76. ^[47%]

- [C.23] Kane, S.K., Bigham, J.P. and Wobbrock, J.O. (2008). **Slide Rule: Making mobile touch screens accessible to blind people using multi-touch interaction techniques.** Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '08). New York: ACM Press, pp. 73-80. [37%]
- [C.22] Kane, S.K., Wobbrock, J.O. and Smith, I.E. (2008). **Getting off the treadmill: Evaluating walking user interfaces for mobile devices in public spaces.** Proceedings of the ACM Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI '08). New York: ACM Press, pp. 109-118. [🏆BEST PAPER WINNER.](#) [32%]
- [C.21] Wobbrock, J.O., Cutrell, E., Harada, S. and MacKenzie, I.S. (2008). **An error model for pointing based on Fitts' law.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '08). New York: ACM Press, pp. 1613-1622. [🏆BEST PAPER WINNER.](#) [21%]
- [C.20] Gajos, K.Z., Wobbrock, J.O. and Weld, D.S. (2008). **Improving the performance of motor-impaired users with automatically-generated, ability-based interfaces.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '08). New York: ACM Press, pp. 1257-1266. [🏆BEST PAPER WINNER.](#) [21%]
- [C.19] Wobbrock, J.O., Rubinstein, J., Sawyer, M.W. and Duchowski, A.T. (2008). **Longitudinal evaluation of discrete consecutive gaze gestures for text entry.** Proceedings of the ACM Symposium on Eye Tracking Research and Applications (ETRA '08). New York: ACM Press, pp. 11-18. [40%]
- [C.18] Wobbrock, J.O. and Gajos, K.Z. (2007). **A comparison of area pointing and goal crossing for people with and without motor impairments.** Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '07). New York: ACM Press, pp. 3-10. [31%]
- [C.17] Froehlich, J., Wobbrock, J.O. and Kane, S.K. (2007). **Barrier Pointing: Using physical edges to assist target acquisition on mobile device touch screens.** Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '07). New York: ACM Press, pp. 19-26. [31%]
- [C.16] Harada, S., Wobbrock, J.O. and Landay, J.A. (2007). **VoiceDraw: A voice-driven hands-free drawing application.** Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '07). New York: ACM Press, pp. 27-34. [31%]
- [C.15] Bigham, J.P., Cavender, A.C., Brudvik, J.T., Wobbrock, J.O. and Ladner, R.E. (2007). **WebinSitu: A comparative analysis of blind and sighted browsing behavior.** Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '07). New York: ACM Press, pp. 51-58. [31%]
- [C.14] Wobbrock, J.O., Wilson, A.D. and Li, Y. (2007). **Gestures without libraries, toolkits or training: A \$1 recognizer for user interface prototypes.** Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '07). New York: ACM Press, pp. 159-168. [☆INVITED FOR REPRISE AT SIGGRAPH 2008.](#) [17%]
- [C.13] Gajos, K.Z., Wobbrock, J.O. and Weld, D.S. (2007). **Automatically generating user interfaces adapted to users' motor and vision capabilities.** Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '07). New York: ACM Press, pp. 231-240. [17%]
- [C.12] González, I.E., Wobbrock, J.O., Chau, D.H., Faulring, A. and Myers, B.A. (2007). **Eyes on the road, hands on the wheel: Thumb-based interaction techniques for input on steering wheels.** Proceedings of Graphics Interface (GI '07). Toronto, Ontario: Canadian Information Processing Society, pp. 95-102. [41%]
- [C.11] Wobbrock, J.O., Chau, D.H. and Myers, B.A. (2007). **An alternative to push, press, and tap-tap-tap: Gesturing on an isometric joystick for mobile phone text entry.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '07). New York: ACM Press, pp. 667-676. [22%]
- [C.10] Wobbrock, J.O. and Myers, B.A. (2006). **From letters to words: Efficient stroke-based word completion for trackball text entry.** Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '06). New York: ACM Press, pp. 2-9. [33%]
- [C.9] Wobbrock, J.O. and Myers, B.A. (2006). **Trackball text entry for people with motor impairments.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '06). New York: ACM Press, pp. 479-488. [🏆BEST PAPER WINNER.](#) [23%]
- [C.8] Myers, B.A. and Wobbrock, J.O. (2005). **Text input to handheld devices for people with physical disabilities.** Proceedings of the 11th Int'l Conference on Human-Computer Interaction (HCI Int'l '05). Mahwah, New Jersey: Lawrence Erlbaum Associates, vol. 4, pp. 1962-1970. [39%]

- [C.7] Wobbrock, J.O., Myers, B.A., Aung, H.H. and LoPresti, E.F. (2004). **Text entry from power wheelchairs: EdgeWrite for joysticks and touchpads.** Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '04). New York: ACM Press, pp. 110-117. [🏆BEST PAPER WINNER.](#) ^[53%]
- [C.6] Wobbrock, J.O., Myers, B.A. and Aung, H.H. (2004). **Writing with a joystick: A comparison of date stamp, selection keyboard and EdgeWrite.** Proceedings of Graphics Interface (GI '04). Toronto, Ontario: Canadian Information Processing Society, pp. 1-8. ^[38%]
- [C.5] Wobbrock, J.O., Myers, B.A. and Kembel, J.A. (2003). **EdgeWrite: A stylus-based text entry method designed for high accuracy and stability of motion.** Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '03). New York: ACM Press, pp. 61-70. ^[22%]
- [C.4] Myers, B.A., Wobbrock, J.O., Yang, S., Yeung, B., Nichols, J. and Miller, R. (2002). **Using handhelds to help people with motor impairments.** Proceedings of the ACM SIGCAPH Conference on Assistive Technologies (ASSETS '02). New York: ACM Press, pp. 89-96. ^[41%]
- [C.3] Nichols, J., Wobbrock, J.O., Gergle, D. and Forlizzi, J. (2002). **Mediator and medium: Doors as interruption gateways and aesthetic displays.** Proceedings of the ACM Symposium on Designing Interactive Systems (DIS '02). New York: ACM Press, pp. 379-386. ^[22%]
- [C.2] Heckman, C.E. and Wobbrock, J.O. (2000). **Put your best face forward: Anthropomorphic agents, e-commerce consumers, and the law.** Proceedings of the ACM Conference on Autonomous Agents (Agents '00). New York: ACM Press, pp. 435-442. ^[24%]
- [C.1] Heckman, C.E. and Wobbrock, J.O. (1998). **Liability for autonomous agent design.** Proceedings of the ACM Conference on Autonomous Agents (Agents '98). New York: ACM Press, pp. 392-399. ^[32%]

Refereed Conference Papers (Notes²)

- [N.13] Anthony, L. and Wobbrock, J.O. (2012). **\$N-Protractor: A fast and accurate multistroke recognizer.** Proceedings of Graphics Interface (GI '12). Toronto, Ontario: Canadian Information Processing Society. To appear. ^[38%]
- [N.12] Findlater, L., Lee, B.Q. and Wobbrock, J.O. (2012). **Beyond QWERTY: Augmenting touch screen keyboards with multi-touch gestures for non-alphanumeric input.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '12). New York: ACM Press, pp. 2679-2682. [§ HONORABLE MENTION PAPER.](#) ^[23%]
- [N.11] Wobbrock, J.O., Findlater, L., Gergle, D. and Higgins, J.J. (2011). **The Aligned Rank Transform for nonparametric factorial analyses using only ANOVA procedures.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '11). New York: ACM Press, pp. 143-146. [§ HONORABLE MENTION PAPER.](#) ^[26%]
- [N.10] Wobbrock, J.O., Jansen, A. and Shinohara, K. (2011). **Modeling and predicting pointing errors in two dimensions.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '11). New York: ACM Press, pp. 1653-1656. ^[26%]
- [N.9] Chilana, P.K., Ko, A.J., Wobbrock, J.O., Grossman, T. and Fitzmaurice, G. (2011). **Post-deployment usability: A survey of current practices.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '11). New York: ACM Press, pp. 2243-2246. ^[26%]
- [N.8] Chilana, P.K., Ko, A.J. and Wobbrock, J.O. (2010). **Understanding expressions of unwanted behaviors in open bug reporting.** Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC '10). Washington, D.C.: IEEE Computer Society, pp. 203-206. ^[12%]
- [N.7] Wobbrock, J.O. (2009). **TapSongs: Tapping rhythm-based passwords on a single binary sensor.** Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '09). New York: ACM Press, pp. 93-96. ^[17%]
- [N.6] Gajos, K.Z., Weld, D.S. and Wobbrock, J.O. (2008). **Decision-theoretic user interface generation.** Proceedings of the 23rd AAAI Conference on Artificial Intelligence (AAAI '08). Menlo Park, California: AAAI Press, pp. 1532-1536. ^[21%]
- [N.5] Kane, S.K., Wobbrock, J.O., Harniss, M. and Johnson, K.L. (2008). **TrueKeys: Identifying and correcting typing errors for people with motor impairments.** Proceedings of the ACM Conference on Intelligent User Interfaces (IUI '08). New York: ACM Press, pp. 349-352. ^[30%]

²Although Notes are shorter than full papers, they are just as rigorously peer-reviewed and often have lower acceptance rates. CHI Notes and UIST TechNotes, especially, are considered top-tier publications in Human-Computer Interaction.

- [N.4] Wobbrock, J.O., Myers, B.A. and Chau, D.H. (2006). **In-stroke word completion**. Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '06). New York: ACM Press, pp. 333-336. ^[23%]
- [N.3] Wobbrock, J.O., Myers, B.A. and Rothrock, B. (2006). **Few-key text entry revisited: Mnemonic gestures on four keys**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '06). New York, ACM Press, pp. 489-492. ^[23%]
- [N.2] Wobbrock, J.O., Aung, H.H., Rothrock, B. and Myers, B.A. (2005). **Maximizing the guessability of symbolic input**. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '05). New York: ACM Press, pp. 1869-1872. ^[25%]
- [N.1] Wobbrock, J.O., Forlizzi, J., Hudson, S.E. and Myers, B.A. (2002). **WebThumb: Interaction techniques for small-screen browsers**. Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '02). New York: ACM Press, pp. 205-208. ^[22%]

Refereed Conference Papers (with Posters)

- [P.13] Azenkot, S., Ladner, R.E. and Wobbrock, J.O. (2011). **Smartphone haptic feedback for nonvisual wayfinding**. Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '11). New York: ACM Press, pp. 281-282. ^[50%]
- [P.12] Evans, A. and Wobbrock, J.O. (2011). **Input Observer: Measuring text entry and pointing performance from naturalistic everyday computer use**. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '11). New York: ACM Press, pp. 1879-1884. ^[45%]
- [P.11] Jansen, A., Findlater, L. and Wobbrock, J.O. (2011). **From the lab to the world: Lessons from extending a pointing technique for real-world use**. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '11). New York: ACM Press, pp. 1867-1872. ^[45%]
- [P.10] Levy, D.M., Wobbrock, J.O., Kaszniak, A.W. and Ostergren, M. (2011). **Initial results from a study of the effects of meditation on multitasking performance**. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '11). New York: ACM Press, pp. 2011-2016. ^[45%]
- [P.9] Kim, J., Tran, J.J., Johnson, T.W., Ladner, R., Riskin, E. and Wobbrock, J.O. (2011). **Effect of MobileASL on communication among deaf users**. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '11). New York: ACM Press, pp. 2185-2190. ^[45%]
- [P.8] Choe, E.K., Shinohara, K., Chilana, P.K., Dixon, M. and Wobbrock, J.O. (2009). **Exploring the design of accessible goal crossing desktop widgets**. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '09). New York: ACM Press, pp. 3733-3738. ^[34%]
- [P.7] Kane, S.K. and Wobbrock, J.O. (2007). **Automatically correcting typing errors for people with motor impairments**. Adjunct Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '07). New York: ACM Press, pp. 59-60.
- [P.6] Chau, D.H., Wobbrock, J.O., Myers, B.A. and Rothrock, B. (2006). **Integrating isometric joysticks into mobile phones for text entry**. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '06). New York: ACM Press, pp. 640-645. ^[50%]
- [P.5] Wobbrock, J.O. and Myers, B.A. (2005). **Gestural text entry on multiple devices**. Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '05). New York: ACM Press, pp. 184-185. ^[38%]
- [P.4] Wobbrock, J.O. and Myers, B.A. (2005). **EdgeWrite: A new text entry technique designed for stability**. Proceedings of the RESNA 28th Annual Conference (RESNA '05). Arlington, Virginia: RESNA Press. On proceedings CD.
- [P.3] Wobbrock, J.O., Myers, B.A. and Aung, H.H. (2004). **Joystick text entry with date stamp, selection keyboard and EdgeWrite**. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '04). New York: ACM Press, p. 1550. ^[37%]
- [P.2] Wobbrock, J.O. (2003). **The benefits of physical edges in gesture-making: Empirical support for an edge-based unistroke alphabet**. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '03). New York: ACM Press, pp. 942-943.
- [P.1] Wobbrock, J.O. (2002). **In your own words: Using full sentences as feedback**. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '02). New York: ACM Press, pp. 866-867.

Workshop Papers

- [W.12] Bernstein, M., Cosley, D., DiSalvo, C., Kairam, S., Karger, D., Kriplean, T., Lampe, C., Mackay, W., Terveen, L., Wobbrock, J. and Yardi, S. (2012). **Reject me: Peer review and SIGCHI**. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '12). New York: ACM Press. To appear.
- [W.11] Kristensson, P.O., Clawson, J., Dunlop, M., Isokoski, P., Roark, B., Vertanen, K., Waller, A. and Wobbrock, J.O. (2012). **Designing and evaluating text entry methods**. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '12). New York: ACM Press. To appear.
- [W.10] Wobbrock, J.O. (2011). **Practical statistics for human-computer interaction: An independent study combining statistics theory and tool know-how**. Annual Workshop of the Human-Computer Interaction Consortium (HCIC '11). Pacific Grove, California (June 14-18, 2011).
- [W.9] Chilana, P.K., Ko, A.J. and Wobbrock, J.O. (2011). **Using crowdsourcing in the design of context-sensitive help for web applications**. CHI 2011 Workshop on "Crowdsourcing and Human Computation." Vancouver, British Columbia (May 7-12, 2011).
- [W.8] Hurst, A., Gajos, K.Z., Findlater, L., Wobbrock, J.O., Sears, A. and Trewin, S. (2011). **Dynamic accessibility: Detecting and accommodating differences in ability and situation**. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '11). New York: ACM Press, pp. 41-44.
- [W.7] Harada, S., Wobbrock, J.O. and Landay, J.A. (2009). **Beyond speech recognition: Improving voice-driven access to computers**. Proceedings of the 2009 IEEE-IBM Accessing the Future Conference. Boston, Massachusetts (July 20-21, 2009).
- [W.6] Chilana, P.K., Ko, A.J. and Wobbrock, J.O. (2009). **Designing software for unfamiliar domains**. Workshop on Cooperative and Human Aspects of Software Engineering (CHASE '09). In Companion of the 31st International Conference on Software Engineering (ICSE '09). Washington, D.C.: IEEE Computer Society, p. 22.
- [W.5] Wobbrock, J.O., Rubinstein, J., Sawyer, M. and Duchowski, A.T. (2007). **Not typing but writing: Eye-based text entry using letter-like gestures**. Proceedings of the 3rd Annual Conference on Communication by Gaze Interaction (COGAIN '07). Frederiksberg, Denmark: The COGAIN Association, pp. 61-64. ^[62%]
- [W.4] Wobbrock, J.O. (2006). **The future of mobile device research in HCI**. CHI 2006 Workshop on "What is the Next Generation of Human-Computer Interaction?" Montreal, Quebec (April 22-27, 2006), pp. 131-134.
- [W.3] Wobbrock, J.O. (2006). **A robust design for accessible text entry**. Accessibility and Computing: The Newsletter of ACM SIGACCESS (no. 84, January 2006). New York: ACM Press, pp. 48-51. First appeared in the Doctoral Consortium of ACM ASSETS 2005.
- [W.2] Wobbrock, J.O., Myers, B.A. and Hudson, S.E. (2003). **Exploring edge-based input techniques for handheld text entry**. Proceedings of the 3rd Int'l Workshop on Smart Appliances and Wearable Computing (IWSAWC '03). In Proceedings of the 23rd IEEE Conference on Distributed Computing Systems Workshops (ICDCSW '03). Washington, D.C.: IEEE Computer Society, pp. 280-282.
- [W.1] Myers, B.A., Nichols, J., Wobbrock, J.O., Litwack, K., Higgins, M., Hughes, J., Harris, T.K., Rosenfeld, R. and Pignol, M. (2003). **Handheld devices for control**. Annual Workshop of the Human-Computer Interaction Consortium (HCIC '03). Winter Park, Colorado (February 5-9, 2003).

Book Chapters

- [B.2] Wobbrock, J.O. (2007). **Measures of text entry performance**. Chapter 3 in I.S. MacKenzie and K. Tanaka-Ishii (eds.), Text Entry Systems: Mobility, Accessibility, Universality. San Francisco: Morgan Kaufmann, pp. 47-74.
- [B.1] Wobbrock, J.O. and Myers, B.A. (2007). **Adding gestural text entry to input devices for people with motor impairments**. Chapter 14 in J. Lazar (ed.), Universal Usability: Designing Computer Interfaces for Diverse User Populations. Hoboken, NJ: John Wiley & Sons, pp. 421-456.

Issued Patents

- [A.3] Wobbrock, J.O. and Myers, B.A. (2010). **Using edges and corners for character input**. Filed March 29, 2004 as #10/811,761. Issued June 1, 2010 as U.S. Patent #7,729,542.

- [A.2] Dehlin, J.P., Chen, C.S., Wilson, A.D., Robbins, D.C., Horvitz, E.J., Hinckley, K.P. and Wobbrock, J.O. (2009). **Recognizing gestures and using gestures for interacting with software applications.** Filed June 28, 2004 as #10/880,167. Issued April 14, 2009 as U.S. Patent #7,519,223.
- [A.1] Kembel, J.A., Kembel, G.A., Medrano, A.P., Kim, D.S., Russell, J., Wobbrock, J., Kembel, G.S., Kembel, J.L., Gabbay, L.D., Malloy, S.J., Bella, J.A., Devulkar, S.T. and Wallin, M. (2008). **Apparatus and method for tracing the distribution of diversely sourced internet content.** Filed April 26, 2000 as #09/558,924. Issued April 8, 2008 as U.S. Patent #7,356,569.

Theses

- [T.2] Wobbrock, J.O. (2006). **EdgeWrite: A versatile design for text entry and control.** Technical Report CMU-HCII-06-104. Ph.D. Dissertation, Carnegie Mellon University, Pittsburgh, PA. 310 pages. ¶*SCHOOL OF COMPUTER SCIENCE DISTINGUISHED DISSERTATION AWARD.*
- [T.1] Wobbrock, J.O. (1998). **The law and policy of autonomous software agents.** Honors Thesis, Stanford University, Stanford, CA. 172 pages. §*ROBERT M. GOLDEN MEDAL.*

PAPER AWARDS

- ¶ **Best Paper Winner, ACM Conference on Human Factors in Computing Systems (CHI 2011)**
Shinohara & Wobbrock: "In the shadow of misperception: Assistive technology use and social interactions." (Top 1% of 1540 submissions.)
- ¶ **Best Paper Winner, ACM Conference on Human Factors in Computing Systems (CHI 2011)**
Kane, Wobbrock & Ladner: "Usable gestures for blind people: Understanding preference and performance." (Top 1% of 1540 submissions.)
- ¶ **Best Paper Winner, IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC 2010)**
Ko & Wobbrock: "Cleanroom: Edit-time error detection with the uniqueness heuristic." (Top 1% of 78 submissions.)
- ¶ **Best Paper Winner, ACM Conference on HCI with Mobile Devices and Services (MobileHCI 2008)**
Kane, Wobbrock & Smith: "Getting off the treadmill: Evaluating walking user interfaces for mobile devices in public spaces." (Top 2% of 200 submissions.)
- ¶ **Best Paper Winner, ACM Conference on Human Factors in Computing Systems (CHI 2008)**
Wobbrock, Cutrell, Harada & MacKenzie: "An error model for pointing based on Fitts' law." (Top 1% of 710 submissions.)
- ¶ **Best Paper Winner, ACM Conference on Human Factors in Computing Systems (CHI 2008)**
Gajos, Wobbrock & Weld: "Improving the performance of motor-impaired users with automatically-generated, ability-based interfaces." (Top 1% of 710 submissions.)
- ¶ **Best Paper Winner, ACM Conference on Human Factors in Computing Systems (CHI 2006)**
Wobbrock & Myers: "Trackball text entry for people with motor impairments." (Top 1% of 350 submissions.)
- ¶ **Best Paper Winner, ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2004)**
Wobbrock, Myers, Aung & LoPresti: "Text entry from power wheelchairs: EdgeWrite for joysticks and touchpads." (Top paper of 50 submissions.)
- § **Honorable Mention Paper, ACM Conference on Human Factors in Computing Systems (CHI 2012)**
Goel, Findlater & Wobbrock: "WalkType: Using accelerometer data to accommodate situational impairments in mobile touch screen text entry." (Top 5% of 1577 submissions.)
- § **Honorable Mention Paper, ACM Conference on Human Factors in Computing Systems (CHI 2012)**
Findlater, Lee & Wobbrock: "Beyond QWERTY: Augmenting touch screen keyboards with multi-touch gestures for non-alphanumeric input." (Top 5% of 1577 submissions.)
- § **Honorable Mention Paper, ACM Conference on Human Factors in Computing Systems (CHI 2011)**
Findlater, Wobbrock & Wigdor: "Typing on flat glass: Examining ten-finger expert typing patterns on touch surfaces." (Top 5% of 1540 submissions.)
- § **Honorable Mention Paper, ACM Conference on Human Factors in Computing Systems (CHI 2011)**
Wobbrock, Findlater, Gergle & Higgins: "The Aligned Rank Transform for nonparametric factorial analyses using only ANOVA procedures." (Top 5% of 1540 submissions.)

- ‡ **Best Paper Nominee, ACM Conference on Human Factors in Computing Systems (CHI 2009)**
Wobbrock, Morris & Wilson: "User-defined gestures for surface computing." (Top 5% of 750 submissions.)

OTHER AWARDS

Honorable Mention, NISH National Scholar Award for Workplace Innovation and Design (2009)

For essay entitled, "Fully accessible touch screens for the blind and visually impaired," co-authored with Shaun K. Kane and Jeffrey P. Bigham.

2nd Place, NISH National Scholar Award for Workplace Innovation and Design (2008)

For essay entitled, "Hands-free voice-driven drawing and diagram creation method for people with motor impairments," co-authored with Susumu Harada and James A. Landay. Award included \$10,000 and an invitation for Mr. Harada to attend the NISH Grassroots Advocacy Training Conference, June 10-13 in Washington, D.C.

School of Computer Science Distinguished Dissertation Award, Carnegie Mellon University (2006-2007)

For dissertation entitled, "EdgeWrite: A versatile design for text entry and control." Award included \$500 and a Distinguished Lecture at the School of Computer Science, Carnegie Mellon University. Was 1 of 2 co-winners.

1st Place, NISH National Scholar Award for Workplace Innovation and Design (2005)

For essay entitled, "Accessible handheld and desktop text entry for people with motor impairments" co-authored with Brad A. Myers. Award included \$20,000 and an invitation for me to attend the NISH National Training and Achievement Conference, May 22-24 in New Orleans.

National Science Foundation IGERT Fellow (2004)

For research in Assistive Technology, Carnegie Mellon University.

Robert M. Golden Medal for Excellence in Humanities and Creative Arts (1998)

For undergraduate honors thesis entitled, "The law and policy of autonomous software agents." Award included \$200, Stanford University.

FEDERAL GRANTS

- NSF** National Science Foundation. (2010-2015). CAREER: Advancing Accessible Computing with Tools for Ability-Based Design [IIS-0952786], PI Jacob O. Wobbrock. \$509,359.
- NSF** National Science Foundation. (2009-2010). EAGER: An Empirical Exploration of Contemplative Multitasking [IIS-0942646], PI David M. Levy and Co-PI Jacob O. Wobbrock. \$127,872.
- NSF** National Science Foundation. (2009-2010). REU Supplement for undergraduate research [IIS-0939684], PI Jacob O. Wobbrock. \$16,000.
- NSF** National Science Foundation. (2008-2012). HCC-SMALL: The End of Pointing and Clicking: Improving Computer Access with Goal Crossing [IIS-0811063], PI Jacob O. Wobbrock and Co-PIs Kurt L. Johnson and Daniel S. Weld. \$448,905.
- NSF** National Science Foundation. (2008-2012). HCC-SMALL: MobileASL: Providing Mobile Video Communications to the Deaf Community through User-Centered Design and Deployment [IIS-0811884], PI Eve A. Riskin and Co-PIs Richard E. Ladner and Jacob O. Wobbrock. \$449,930.

INDUSTRY AND UNIVERSITY FUNDING

- GOOGLE** Google Research Award. (2011-2012). Cursor Mining in Web Search. \$50,000.
- MSFT** Microsoft Research. (2010-2012). Support for the AIM Research Group. \$50,000.
- INTEL** Intel Corporation. (2010). Support for, "new mobile interfaces for nomadic usability and accessibility." \$25,000.
- MSFT** Microsoft Corporation. (2009). Donation of a Microsoft Surface unit and associated software for, "touch typing on a surface computer."
- UW RRF** University of Washington Royalty Research Fund. (2008-2009). Beyond speech recognition: Harnessing the power of voice for effective control of computer interfaces, by James A. Landay and Jacob O. Wobbrock. \$38,000.
- INTEL** Intel Corporation. (2008). Support for, "software development for HCI research." \$30,000.
- MSFT** Microsoft Research. (2008-2010). Support for the AIM Research Group. \$50,000.

- NISH** NISH. (2008). Second-place award for *VoiceDraw* project with Susumu Harada and James A. Landay. \$5,000.
- UW WRF** Washington Research Foundation. (2007). Support for development of iPhone/iPod EdgeWrite. \$20,000.
- INTEL** Intel Labs Seattle. (2006). Support for, "research on new input and interaction techniques, assistive technologies, mobile computing interfaces, and other areas of HCI." \$25,000.

ORIGINAL PRESS

1. Staff. UW President Michael Young attends dub retreat. UW CSE News, April 27, 2012.
2. Joon Yi. "Two UW students named Facebook Fellows." The Daily of the University of Washington, February 21, 2012.
3. Todd Bishop. "Better typing while walking, and other cool stuff from UW." GeekWire, October 20, 2011.
4. Eric Smalley. "Portico takes tablets off-screen." C|NET News, October 12, 2011.
5. Duncan Graham-Rowe. "Taking touch beyond the touch screen." M.I.T. Technology Review, September 23, 2011.
6. June Simms. "A better computer mouse cursor for the disabled." Science and Technology, Voice of America, April 17, 2011.
7. Mark Gibbs. "Improved mouse control for users with disabilities." Business Center, PC World, April 16, 2011.
8. Mark Huffman. "Free software makes using a mouse easier: Designed for people with motor disabilities." ConsumerAffairs.com, April 13, 2011.
9. Slashdot. "Free software helps disabled use mouse." Hardware, Slashdot.com, April 10, 2011.
10. Darren Quick. "Researchers tackle mouse control from a different angle." Personal Computing, *gizmag*, April 10, 2011.
11. Catherine O'Donnell. "Free software makes computer mouse easier for people with disabilities." University of Washington News, April 7, 2011.
12. Staff. "UW, iSchool dominate CHI awards." Information School News, April 5, 2011.
13. Staff. "Record year for iSchool, dub at CHI 2011." Information School News, February 17, 2011.
14. Staff. "Success by design." Information School News, November 8, 2010.
15. Staff. "Drs. Ko, Wobbrock earn best paper at VL/HCC." Information School News, September 24, 2010.
16. Hannah Hickey. "Deaf, hard-of-hearing students do first test of sign language by cell phone." University of Washington News, August 16, 2010. Story picked up by KING5 and KCPQ13 local news.
17. Jean Patterson. "Junior faculty blaze path forward for iSchool." Information School News, July 16, 2010.
18. Justin Rattner. Research@Intel Day 2010 keynote with Intel CTO Justin Rattner. Portico was discussed by the Intel CTO on June 30, 2010.
19. Slashdot. "Demo of laptop/tabletop hybrid UI." Hardware, Slashdot.com, April 14, 2010.
20. KING 5 News. "UW student named Facebook Fellow." Local News, KING5.com. April 14, 2010.
21. Larry Larsen. "Using your voice to paint." Channel 9 from MSDN. April 1, 2010.
22. Nick Eaton. "Tabletop UI, wireless power and more from Intel Labs Seattle." Seattle Post-Intelligencer Blogs. September 30, 2009.
23. Staff. "Tuning technology to special needs." Information School News, May 28, 2009.
24. Larry Greenemeier. "Microsoft tries to get a grip on touch computing with Surface." 60-Second Science Blog, Scientific American, April 11, 2009.
25. Ina Fried. "Microsoft puts finger on better gestures." C|NET News, April 6, 2009.
26. Ivanhoe Newswire. "Pimp my program: Help for the disabled." Television news release, March 2009.
27. Richard Seven. "Researchers work on developing sign language for cellphones." Seattle Times, Health, December 2, 2008.
28. Richard Seven. "UW creates a computer mouse driven by sound." Seattle Times, Business/Technology, October 6, 2008.
29. Robert P. Bennett. "Squaring off with EdgeWrite." Disaboom, Tech & Tools, September 23, 2008.
30. Lee Bruno. "An interface for your eyes only." The Guardian (UK), August 28, 2008.
31. Hannah Hickey. "Signing by cell: Can you see me now?" University of Washington News, August 21, 2008.
32. Microsoft Corporation. "The Dobbs Challenge—Contest winners announced!" Mr. Spiff's Revenge by POW Studios, Best Windows Game, August 2, 2008.
33. Hannah Hickey. "For your eyes only: Custom interfaces make computer clicking faster, easier." University of Washington News, July 15, 2008.
34. Lynne Harris. "NISH recognizes college engineers for inventions designed to help people with disabilities in the workplace." National press release, June 11, 2008.
35. Staff. "iSchool garners three Best Paper Awards at CHI 2008." Information School News, April 4, 2008.
36. Virginia Gold. "SIGCHI announces Best of CHI 2008 award winners." ACM News Release, April 3, 2008.
37. Staff. "Dominating DUB." Etc: Campus News & Notes. University Week 25 (18), February 28, 2008, p. 3.
38. Staff. "COMPUTER: Malen mit der Stimme." Der Spiegel 43, October 22, 2007, p. 215.
39. Patrick Pettibon. "CMU, Pitt receive \$15 million research grant." The Tartan, August 28, 2006.
40. Holly Witteman. "Perspectives on CHI 2006." SIGCHI Bulletin 38 (3), July 2006.
41. Ivanhoe Broadcast News. "Hi-tech typing." Television news release, October 2005.

42. Vicki Contavespi. "NISH announces winners of 2004-2005 National Scholar Awards for Workplace Innovation & Design." National press release, May 2005.
43. Byron Spice. "Text with an edge." Pittsburgh Post-Gazette, Monday, November 29, 2004, p. A-6. Full-page feature.
44. Todd Bishop. "Microsoft DemoFest offers look at latest university research." Seattle Post-Intelligencer, Wednesday, August 4, 2004, p. E-1.
45. Staff. "Prototype: Write steady." M.I.T. Technology Review 108 (8), August 2005, p. 27.
46. Staff. "Science honors." Science & Environment. Pittsburgh Post-Gazette, Monday, July 4, 2005, p. A-6.
47. Staff. "Personal mention." Carnegie Mellon 8½ × 11 News 15 (46), June 9, 2005.
48. Steve August. "Debugging the user code, part 2: Integrating users into product development." productmarketing.com Magazine 2 (1), January/February 2004, pp. 17-23.
49. Alison Overholt. "Sidebar: Pardon the interruption." Fast Company Magazine 63, October 2002, p. 118.

TEACHING

University of Washington

INSC 599	Practical Statistics for HCI (Independent study) ^{C,I}
INSC 570	Research Design (Autumn 2006, 2007, 2008, 2009) ^I
CSE 590W	Research Seminar: Accessibility (Spring 2012) ^I
IMT 540A	Design Methods for Interaction and Systems (Autumn 2007, 2008, 2009) ^I
INFO 498B	Special Topics: Input and Interaction (Spring 2008, 2009) ^{C,I}
INFO 470	Research Methods in Informatics (Autumn 2010, 2011) ^I
INFO 463	Input and Interaction (Spring 2012) ^{C,I}
INFO 444	Value Sensitive Design (Spring 2007) ^I

Carnegie Mellon University

HCI 291	HCI for Computer Scientists (Spring 2004) ^{C,I}
HCI 413	Human Factors (Autumn 2004) ^T

Stanford University

CS 147	Introduction to Human-Computer Interaction Design (Autumn 1998, 1999) ^T
CS 201	Computers, Ethics & Social Responsibility (Winter 1999) ^T
CS 247B	Human-Computer Interaction: Contextual & Organizational Issues (Spring 1999) ^T
CS 106X	Programming Methodology and Abstractions (Spring 1999) ^T
CS 106A	Programming Methodology (Autumn 1997) ^T

C = creator, I = instructor, T = teaching assistant

CONSULTING AND INDUSTRY

Intellectual Property

1. Finnegan, Henderson, Farabow, Garrett & Dunner, LLP – Washington, D.C. (2011-2012).
2. Kecker & Van Nest, LLP – San Francisco, CA (2011-2012).
3. Finnegan, Henderson, Farabow, Garrett & Dunner, LLP – Washington, D.C. (2010-2011).
4. Kecker & Van Nest, LLP – San Francisco, CA (2010-2011).
5. K&L Gates, LLP – Seattle, WA (2007).

Technical Consulting

1. Natural Input Solutions – Toronto, ON, Canada (2008-2009).
2. Microsoft Research – Redmond, WA (2008).
3. Ingrian Networks – Redwood City, CA (2002).
4. Google – Mountain View, CA (2001).

Industry Positions Held

1. Research Intern, Microsoft Research – Redmond, WA (2003).
2. Senior Software Engineer, DoDots – Sunnyvale, CA (2000-2001).
3. Software Engineer, DoDots – Mountain View, CA (1999-2000).
4. Technical Intern, Intel-Mattel Smart Toy Lab – Portland, OR (1999).
5. Technical Intern, Intel Corporation – Hillsboro, OR (1997).

PUBLIC PRESENTATIONS

Presentations to Industry

1. "Understanding gestures in user interfaces." (2010). Invited speaker, WritersUA Conference for Software User Assistance. Seattle, WA.
2. "Making computers accessible with everyday input devices." (2009). Invited speaker, WritersUA Conference for Software User Assistance. Seattle, WA.
3. "Flipping the burden: Making computers accessible with everyday input devices." (2008). Keynote address, InfoCamp. Seattle, WA.

External Research Talks

1. "From plastic to pixels: In pursuit of effective touch-typing on touch screens." (2012). Research presentation, Microsoft Research. Redmond, WA.
2. "Back to basics: Making pointing accessible." (2011). Invited speaker, Stanford University seminar on People, Computers and Design (CS 547). Stanford, CA.
3. "Flipping the burden: Making computers accessible with everyday input devices." (2008). Distinguished Lecture, School of Computer Science, Carnegie Mellon University. Pittsburgh, PA.
4. "Flipping the burden: Towards ability-based design." (2008). Invited speaker, HCI Seminar, Computer Science Department, University of Illinois—Urbana-Champaign. Champaign, IL.
5. "Accessible handheld and desktop text entry for people with motor impairments." (2005). Award presentation, NISH National Training and Achievement Conference. New Orleans, LA.
6. "Imagine EdgeWrite." (2005). Invited demonstration, Microsoft Research Tech Fair, Library of Congress. Washington, D.C.

Internal Research Talks

1. "Back to basics: Making pointing accessible." (2011). DUB Group.
2. "Accessing the world: Projects by the iSchool's AIM Research Group." (2009). Featured speaker, UW Board of Regents.
3. "Overview of the AIM Research Group." (2009). All-Board Meeting, Information School.
4. "Making computers accessible with everyday input devices." (2009). Research Conversation, Information School.
5. "User-defined vs. researcher-defined gestures." (2009). DUB Group.
6. "An error model for pointing based on Fitts' law." (2008). DUB Group.
7. "Achieving fundamental improvements in computer access." (2008). Design Machine Group, Architecture Department.
8. "Movement, input and errors." (2007). DUB Group.
9. "Improving the accessibility of mobile devices for motor and situational impairments." (2007). Invited speaker, iEdge Conference, ASIS&T Chapter.
10. "EdgeWrite text entry and mobile accessibility." (2006). Founders' Board Meeting, Information School.

Academic Conference Presentations

1. "TapSongs: Tapping rhythm-based passwords on a single binary sensor." (2009). ACM Symposium on User Interface Software and Technology. Victoria, British Columbia.
2. "The Angle Mouse: Target-agnostic dynamic gain adjustment based on angular deviation." (2009). ACM Conference on Human Factors in Computing Systems. Boston, MA.
3. "User-defined gestures for surface computing." (2009). ACM Conference on Human Factors in Computing Systems. Boston, MA.
4. "An error model for pointing based on Fitts' law." (2008). ACM Conference on Human Factors in Computing Systems. Florence, Italy.
5. "A comparison of area pointing and goal crossing for people with and without motor impairments." (2007). ACM SIGACCESS Conference on Computers and Accessibility. Tempe, AZ.
6. "Gestures without libraries, toolkits or training: A \$1 recognizer for user interface prototypes." (2007). ACM Symposium on User Interface Software and Technology. Newport, RI.
7. "An alternative to push, press, and tap-tap-tap: Gesturing on an isometric joystick for mobile phone text entry." (2007). ACM Conference on Human Factors in Computing Systems. San Jose, CA.
8. "From letters to words: Efficient stroke-based word completion for trackball text entry." (2006). ACM SIGACCESS Conference on Computers and Accessibility. Portland, OR.
9. "In-stroke word completion." (2006). ACM Symposium on User Interface Software and Technology. Montreux, Switzerland.
10. "Few-key text entry revisited: Mnemonic gestures on four keys." (2006). ACM Conference on Human Factors in Computing Systems. Montreal, Quebec.
11. "Trackball text entry for people with motor impairments." (2006). ACM Conference on Human Factors in Computing Systems. Montreal, Quebec.

12. "Maximizing the guessability of symbolic input." (2005). ACM Conference on Human Factors in Computing Systems. Portland, OR.
13. "Text entry from power wheelchairs: EdgeWrite for joysticks and touchpads." (2004). ACM SIGACCESS Conference on Computers and Accessibility. Atlanta, GA.
14. "Writing with a joystick: A comparison of date stamp, selection keyboard and EdgeWrite." (2004). Graphics Interface. London, Ontario.
15. "EdgeWrite: A stylus-based text entry method designed for high accuracy and stability of motion." (2003). ACM Symposium on User Interface Software and Technology. Vancouver, British Columbia.
16. "Exploring edge-based input techniques for handheld text entry." (2003). IEEE Conference on Distributed Computing Systems Workshops. Providence, RI.
17. "WebThumb: Interaction techniques for small-screen browsers." (2002). ACM Symposium on User Interface Software and Technology. Paris, France.
18. "Put your best face forward: Anthropomorphic agents, e-commerce consumers, and the law." (2000). ACM Conference on Autonomous Agents. Barcelona, Spain.
19. "Liability for autonomous agent design." (1998). ACM Conference on Autonomous Agents. Minneapolis, MN.

RESEARCH ADVISING

Ph.D. Advisees

1. Jessica J. Tran, Co-advisor with Eve Riskin and Richard E. Ladner, Ph.D. in Electrical Engineering, 2011-.
2. Jeff Huang, Co-advisor with Susan Dumais, Ph.D. in Information Science, 2011-.
3. Abigail Evans, Advisor, Ph.D. in Information Science, 2010-.
4. Alex Jansen, Advisor, Ph.D. in Information Science, 2010-.
5. Shiri Azenkot, Co-advisor with Richard E. Ladner, Ph.D. in Computer Science, 2009-.
6. Kristen Shinohara, Advisor, Ph.D. in Information Science, 2008-.
7. Parmit K. Chilana, Co-advisor with Andrew J. Ko, Ph.D. in Information Science, 2008-.
8. Shaun K. Kane, Co-advisor with Richard E. Ladner, Ph.D. in Information Science, 2006-2011. *First position as assistant professor at University of Maryland—Baltimore County.*
9. Susumu Harada, Co-advisor with James A. Landay, Ph.D. in Computer Science, 2006-2010. *First position at IBM Tokyo Research Lab.*
10. Krzysztof Z. Gajos, Co-advisor with Daniel S. Weld, Ph.D. in Computer Science, 2006-2008. *First position as assistant professor at Harvard University.*

Postdoctoral Fellows

1. Leah Findlater, Information School, 2009-2011. *First position as assistant professor at University of Maryland—College Park.*

Internal Ph.D. Committees (non-advisees)

1. Suporn Pongnumkul, Ph.D. dissertation proposal GSR, Computer Science, 2011. *First position at National Electronics and Computer Technology Center, Thailand.*
2. Jaehong Chon, Ph.D. dissertation GSR, Electrical Engineering, 2009-2011. *First position at Qualcomm.*
3. Chandrika Jayant, Ph.D. dissertation committee, Computer Science, 2009-2011. *First position at Nokia Research.*
4. Colin Birge, Ph.D. dissertation committee, Human Centered Design & Engineering, 2008-.
5. Craig M. Prince, Ph.D. dissertation committee, Computer Science, 2007-.
6. Alan L. Liu, Ph.D. dissertation committee, Computer Science, 2007-2010. *First position at Kiha Software.*
7. Anna Cavender, Ph.D. dissertation committee, Computer Science, 2007-2010. *First position at Google.*
8. Neva Cherniavsky, Ph.D. dissertation committee, Computer Science, 2008-2009. *First position as postdoctoral fellow at INRIA, France.*
9. Jeffrey Bigham, Ph.D. dissertation committee, Computer Science, 2006-2009. *First position as assistant professor at University of Rochester.*
10. Jerrod A. Larson, Ph.D. dissertation GSR, Technical Communication, 2008-2009. *First position at Boeing.*
11. Jon DeShazo, Ph.D. dissertation GSR, Biomedical & Health Informatics, 2007-2009. *First position as assistant professor at Virginia Commonwealth University.*

External Ph.D. Committees

1. James Clawson, Ph.D. dissertation committee, Human-Centered Computing (Georgia Tech), 2008-.

Other Research Advising

1. Katie O'Leary, Research Assistant, 2010-2012. *Admitted to Ph.D. program in Information Science.*
2. Nelson Nogales, Research Assistant, 2010-2011. *First position at ZAAZ.*
3. Tressa Johnson, Research Assistant, MLIS, 2009-2010.

4. Alex Jansen, NSF REU Scholar, Informatics major, 2009–2010. *Admitted to Ph.D. program in Information Science.*
5. Peter Kamb, NSF REU Scholar, Informatics major, 2009–2010. *First position at Swype.*
6. Eun Kyong Choe, Ph.D. in Information Science, 2008–2009.

SERVICE

University of Washington

Information School

Elected Faculty Council: 2011-2012.
 Ph.D. Admissions Committee: 2006-2011.
 Ph.D. Program Committee: 2007-2011.
 HCI Jr. Faculty Search Committee: 2007-2008.
 Recognition & Nomination Committee: 2006-2008.
 Social Committee: 2006-2007.

Design:Use:Build Group (DUB)

DUB Annual Retreat Co-Chair: 2012.
 DUB State of the Union Address: 2012.
 DUB Annual Retreat Planning Committee: 2008, 2011.
 DUB CHI Reception Committee: 2009, 2011.
 Founding Committee, Masters in HCI & Design (MHCI.d): 2009-2012.

Carnegie Mellon University

Founding Committee, 15-291: HCI for Computer Scientists: 2003.
 Ph.D. Admissions Committee in Human-Computer Interaction: 2002.

Service to My Field

Board Member

Seattle InfoCamp Advisory Board: 2008-2010.
 Statewide Website Advisory Group (SWAG), Washington State Access to Justice Board: 2007-2009.

Journal Associate Editor (AE)

Editor, Foundations and Trends in Human-Computer Interaction (Now): 2012–present.
 International Journal of Human-Computer Studies (Elsevier): 2010–2012.
 Advances in Human-Computer Interaction (Hindawi): 2007–2010.

Conference Committees (CCs)

Workshops Co-Chair, ACM Conference on Human Factors in Computing Systems (CHI): 2010.

Program Committees (PCs)

ACM Conference on Human Factors in Computing Systems (CHI) (4 yrs.): 2008-2009, 2011-2012.
 ACM Symposium on User Interface Software and Technology (UIST) (3 yrs.): 2007, 2009, 2011.
 ACM Conference on Computers and Accessibility (ASSETS) (3 yrs.): 2008, 2010-2011.
 Int'l Conference on Pervasive Computing (Pervasive) (1 yr.): 2007.
 iConference (1 yr.): 2011.

Doctoral Consortia (DCs)

Faculty Mentor, ACM Conference on Computers and Accessibility (ASSETS): 2007.

Peer Reviewing

Conferences

ACM Human Factors in Computing Systems (CHI): annually from 2003-2012.
 ACM User Interface Software & Technology (UIST): annually from 2004-2012.
 ACM Computers and Accessibility (ASSETS): 2008, 2010-2011.
 ACM Human-Computer Interaction with Mobile Devices and Services (MobileHCI): 2012.
 ACM Computer-Supported Cooperative Work (CSCW): 2008.

ACM Intelligent User Interfaces (IUI): 2008.
ACM Int'l Conference on Multimodal Interfaces (ICMI): 2006.
ACM Interactive Tabletops and Surfaces (ITS): 2011.
ACM Designing Interactive Systems (DIS): 2012.
World Wide Web (WWW): 2012.
IEEE Tabletops and Interactive Surfaces: 2008.
IEEE Int'l Symposium on Wearable Computers (ISWC): 2005, 2008.
IFIP TC13 Int'l Conference on Human-Computer Interaction (INTERACT): 2011.
Int'l Conference on Pervasive Computing (Pervasive): 2007, 2012.
Graphics Interface (GI): 2006-2007, 2012.
British HCI Group Annual Conference (HCI): 2002.

Journals

Human-Computer Interaction Journal: annually from 2003-2006, 2009.
ACM Trans. Computer-Human Interaction (TOCHI): 2006, 2008-2009, 2012.
ACM Trans. Accessible Computing (TACCESS): 2007-2008, 2011.
ACM Computing Surveys: 2008-2009.
Int'l Journal of Human-Computer Studies (IJHCS): 2007-2008, 2010-2011.
Int'l Journal of Human-Computer Interaction (IJHCI): 2012.
Foundations and Trends in Human Computer Interaction: 2011.
Mathematics and Social Sciences: 2012.
Behaviour and Information Technology (BIT): 2009-2010.
Interacting with Computers (IwC): 2009.
RESNA Assistive Technology Journal (ATJ): 2008.
Universal Access in the Information Society (UAIS): 2007, 2011.
Journal of the American Society for Information Science & Technology (JASIST): 2006.
Advances in Human-Computer Interaction (AHCI): 2008-2009.
IEEE Computer: 2003.

Student Volunteer (SV)

ACM UIST: 2002, 2004.

PROFESSIONAL MEMBERSHIPS

Association for Computing Machinery (ACM).
Special interest group in Computer-Human Interaction (SIGCHI).
Special interest group in Accessible Computing (SIGACCESS).