

Jacob O. Wobbrock, Ph.D.

Curriculum Vitae

Associate Professor, Information School
 Adjunct Associate Professor, Computer Science & Engineering
 Director, Mobile + Accessible Design Lab
 University of Washington
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ABOUT

Jacob O. Wobbrock is an associate professor at the University of Washington, one of the world's elite universities for research in human-computer interaction (HCI). His research seeks to scientifically understand people's interactions with computers and information, and to improve those interactions through design and engineering, especially for people with disabilities. His specific research topics include input & interaction techniques, human performance measurement & modeling, HCI research & design methods, mobile computing, and accessible computing. He pursues *Ability-Based Design*, where the human abilities required to use a technology in a given context are questioned, and systems are made operable by or adaptable to alternative abilities. Dr. Wobbrock has co-authored over 120 peer-reviewed publications, receiving 19 paper awards, including 7 best papers and 7 honorable mentions from ACM's CHI conference. For his work on accessible computing, he received the 2017 ACM SIGCHI Social Impact Award. His research has been reported in The New York Times, The Seattle Times, The Pittsburgh Post-Gazette, The Huffington Post, and other outlets. He is the recipient of an NSF CAREER award and five other National Science Foundation grants. He is on the editorial board of ACM Transactions on Computer-Human Interaction. His advisees have been hired at Harvard, Cornell, Colorado, Maryland, Brown, Simon Fraser, and elsewhere. Dr. Wobbrock is also an entrepreneur: he was the venture-backed co-founder and CEO of *AnswerDash* from September 2012 – May 2015, and is currently its Chief Experience Officer (CXO) in an advisory role. Dr. Wobbrock received a B.S. with Honors in Symbolic Systems and an M.S. in Computer Science from Stanford University. He received a Ph.D. in Human-Computer Interaction from Carnegie Mellon University. Upon graduation, he was honored with CMU's School of Computer Science Distinguished Dissertation Award.

FACULTY POSITIONS

University of Washington · 2006 – present

- Associate Professor, The Information School · 2011 – present
 Adjunct Associate Professor, School of Computer Science & Engineering · 2011 – present
- Assistant Professor, The Information School · 2006 – 2011
 Adjunct Assistant Professor, Department of Computer Science & Engineering · 2006 – 2011

EDUCATION

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

- Official concentration in Computer Science. Advisor: Brad A. Myers.
 Thesis: *EdgeWrite: A Versatile Design for Text Entry and Control* (Distinguished Dissertation Award).
 Committee: Brad A. Myers, Scott E. Hudson, Jennifer Mankoff, Richard C. Simpson, 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.
 Thesis: *The Law and Policy of Autonomous Software Agents* (received Robert M. Golden Medal).

PUBLICATIONS

Keynotes, Plenaries and Award Talks

- [K.1]  Wobbrock, J.O. (2017). **Ability-Based Design: Elevating ability over disability in accessible computing**. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '17). Denver, Colorado (May 6-11, 2017). New York: ACM Press, pp. 5-7. *2017 SIGCHI Social Impact Award*.

Journal Articles

- [J.16] Wobbrock, J.O. and Kientz, J.A. (2016). **Research contributions in human-computer interaction**. *ACM Interactions* 23 (3), May + June 2016, pp. 38-44.¹

¹ Note that *ACM Interactions* is not a scholarly journal, *per se*, but a semi-scholarly magazine.




- [J.15] Shinohara, K. and Wobbrock, J.O. (2016). **Self-conscious or self-confident? A diary study conceptualizing the social accessibility of assistive technology.** *ACM Transactions on Accessible Computing* 8 (2), January 2016, Article No. 5.
- [J.14] Bigham, J.P., Lasecki, W.S. and Wobbrock, J.O. (2015). **Target acquisition and the crowd actor.** *Human Computation* 2 (2), pp. 135-154.
- [J.13] Tran, J.J., Riskin, E.A., Ladner, R.E. and Wobbrock, J.O. (2015). **Evaluating intelligibility and battery drain of mobile sign language video transmitted at low frame rates and bit rates.** *ACM Transactions on Accessible Computing* 7 (3), November 2015, Article No. 11.
- [J.12] Morris, M.R., Danielescu, A., Drucker, S., Fisher, D., Lee, B., schraefel, m.c. and Wobbrock, J.O. (2014). **Reducing legacy bias in gesture elicitation studies.** *ACM Interactions* 21 (3), May + June 2014, pp. 40-45.
- [J.11] Findlater, L. and Wobbrock, J.O. (2012). **From plastic to pixels: In search of touch-typing touchscreen keyboards.** *ACM Interactions* 19 (3), May + June 2012, pp. 44-49.
- [J.10] 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), April 2011, Article No. 9.
- [J.9] Gajos, K.Z., Weld, D.S. and Wobbrock, J.O. (2010). **Automatically generating personalized user interfaces with SUPPLE.** *Artificial Intelligence* 174 (12-13), August 2010, pp. 910-950.
- [J.8] Wobbrock, J.O., Ko, A.J. and Kientz, J.A. (2009). **Reflections on the future of iSchools from inspired junior faculty.** *ACM Interactions* 16 (5), September + October 2009, pp. 69-71.
- [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), December 2008, 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), May 2008, Article No. 4.
- [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), January/March 2008, 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), December 2006, 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), May-June 2005, 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), December 2004, 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), March 1999, pp. 87-103.





Refereed Conference Papers^{2†} (Full)





- [C.80] Shinohara, K., Bennett, C.L., Wobbrock, J.O. and Pratt, W. (2017). **Teaching accessibility in a technology design course.** Proceedings of the International Conference on Computer Supported Collaborative Learning (CSCL '17). Philadelphia, Pennsylvania (June 18-22, 2017). Atlanta, Georgia: ISLS Press. To appear.
- [C.79] Evans, A.C., Davis, K., Fogarty, J. and Wobbrock, J.O. (2017). **Group Touch: Distinguishing tabletop users in group settings via statistical modeling of touch pairs.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '17). Denver, Colorado (May 6-11, 2017). New York: ACM Press, pp. 35-47. ^[25%]
- [C.78] Mott, M.E., Williams, S., Wobbrock, J.O. and Morris, M.R. (2017). **Improving dwell-based gaze typing with dynamic, cascading dwell times.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '17). Denver, Colorado (May 6-11, 2017). New York: ACM Press, pp. 2558-2570. ^[25%]
- [C.77] Zhang, X., Ross, A., Caspi, A., Fogarty, J. and Wobbrock, J.O. (2017). **Interaction proxies for runtime repair and enhancement of mobile application accessibility.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '17). Denver, Colorado (May 6-11, 2017). New York: ACM Press, pp. 6024-6037. ^[25%]






² Unlike 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://dl.acm.org/citation.cfm?id=1743546.1743569>.

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

- [C.76] O’Leary, K., Bhattacharya, A., Munson, S., Wobbrock, J.O. and Pratt, W. (2017). **Design opportunities for mental health peer support technologies**. Proceedings of the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW ’17). Portland, Oregon (February 25-March 1, 2017). New York: ACM Press, pp. 1470-1484. ^[34%]
- [C.75] Shinohara, K., Bennett, C.L. and Wobbrock, J.O. (2016). **How designing for people with and without disabilities shapes student design thinking**. Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS ’16). Reno, Nevada (October 24-26, 2016). New York: ACM Press, pp. 229-237. ^[25%]
- [C.74] Anthony, L., Stofer, K.A., Luc, A. and Wobbrock, J.O. (2016). **Gestures by children and adults on touch tables and touch walls in a public science center**. Proceedings of the ACM Conference on Interaction Design and Children (IDC ’16). Manchester, United Kingdom (June 21-24, 2016). New York: ACM Press, pp. 344-355. ^[47%]
- [C.73]  Mott, M.E., Vatavu, R.-D., Kane, S.K. and Wobbrock, J.O. (2016). **Smart Touch: Improving touch accuracy for people with motor impairments with template matching**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI ’16). San Jose, California (May 7-12, 2016). New York: ACM Press, pp. 1934-1946. *Best Paper Winner*. ^[23%]
- [C.72] Vatavu, R.-D. and Wobbrock, J.O. (2016). **Between-subjects elicitation studies: Formalization and tool support**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI ’16). San Jose, California (May 7-12, 2016). New York: ACM Press, pp. 3390-3402. ^[23%]
- [C.71] Evans, A.C., Wobbrock, J.O. and Davis, K. (2016). **Modeling collaboration patterns on an interactive tabletop in a classroom setting**. Proceedings of the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW ’16). San Francisco, California (February 27-March 2, 2016). New York: ACM Press, pp. 860-871. ^[25%]
- [C.70]  Vatavu, R.-D. and Wobbrock, J.O. (2015). **Formalizing agreement analysis for elicitation studies: New measures, significance test, and toolkit**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI ’15). Seoul, Korea (April 18-23, 2015). New York: ACM Press, pp. 1325-1334. *Honorable Mention Paper*. ^[23%]
- [C.69]  Chilana, P.K., Ko, A.J. and Wobbrock, J.O. (2015). **From user-centered to adoption-centered design: A case study of an HCI research innovation becoming a product**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI ’15). Seoul, Korea (April 18-23, 2015). New York: ACM Press, pp. 1749-1758. *Best Paper Winner*. ^[23%]
- [C.68] Mariakakis, A., Goel, M., Aumi, M.T.I., Patel, S.N. and Wobbrock, J.O. (2015). **SwitchBack: Using focus and saccade tracking to guide users’ attention for mobile task resumption**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI ’15). Seoul, Korea (April 18-23, 2015). New York: ACM Press, pp. 2953-2962. ^[23%]
- [C.67] Vatavu, R.-D., Anthony, L. and Wobbrock, J.O. (2014). **Gesture heatmaps: Understanding gesture performance with colorful visualizations**. Proceedings of the ACM International Conference on Multimodal Interaction (ICMI ’14). Istanbul, Turkey (November 12-16, 2014). New York: ACM Press, pp. 172-179. ^[39%]
- [C.66] Tran, J.J., Flowers, B., Riskin, E.A., Ladner, R.E. and Wobbrock, J.O. (2014). **Analyzing the intelligibility of real-time mobile sign language video transmitted below recommended standards**. Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS ’14). Rochester, New York (October 20-22, 2014). New York: ACM Press, pp. 177-184. ^[26%]
- [C.65] Mott, M.E. and Wobbrock, J.O. (2014). **Beating the bubble: Using kinematic triggering in the Bubble Lens for acquiring small, dense targets**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI ’14). Toronto, Ontario (April 26-May 1, 2014). New York: ACM Press, pp. 733-742. ^[23%]
- [C.64] Pasqual, P.T. and Wobbrock, J.O. (2014). **Mouse pointing endpoint prediction using kinematic template matching**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI ’14). Toronto, Ontario (April 26-May 1, 2014). New York: ACM Press, pp. 743-752. ^[23%]
- [C.63] Vatavu, R.-D., Anthony, L. and Wobbrock, J.O. (2013). **Relative accuracy measures for stroke gestures**. Proceedings of the ACM International Conference on Multimodal Interaction (ICMI ’13). Sydney, Australia (December 9-13, 2013). New York: ACM Press, pp. 279-286. ^[20%]
- [C.62] Kane, S.K., Morris, M.R. and Wobbrock, J.O. (2013). **Touchplates: Low-cost tactile overlays for visually impaired touch screen users**. Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS ’13). Bellevue, Washington (October 21-23, 2013). New York: ACM Press. Article No. 22. ^[29%]
- [C.61] Tran, J.J., Rodriguez, R., Riskin, E.A. and Wobbrock, J.O. (2013). **A web-based intelligibility evaluation of sign language video transmitted at low frame rates and bitrates**. Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS ’13). Bellevue, Washington (October 21-23, 2013). New York: ACM Press. Article No. 2. ^[29%]
- [C.60] Dell, N., Breit, N., Wobbrock, J.O. and Borriello, G. (2013). **Improving form-based data entry with image snippets**. Proceedings of Graphics Interface (GI ’13). Regina, Saskatchewan (May 29-31, 2013). Toronto, Ontario: Canadian Information Processing Society, pp. 157-164. ^[38%]
- [C.59] Anthony, L., Vatavu, R.-D. and Wobbrock, J.O. (2013). **Understanding the consistency of users’ pen and finger stroke gesture articulation**. Proceedings of Graphics Interface (GI ’13). Regina, Saskatchewan (May 29-31, 2013). Toronto, Ontario: Canadian Information Processing Society, pp. 87-94. ^[38%]




- [C.58] O'Leary, K., Wobbrock, J.O. and Riskin, E.A. (2013). **Q-methodology as a research and design tool for HCI**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '13). Paris, France (April 27-May 2, 2013). New York: ACM Press, pp. 1941-1950. ^[20%]
- [C.57] Chilana, P.K., Ko, A.J., Wobbrock, J.O. and Grossman, T. (2013). **A multi-site field study of crowdsourced contextual help: Usage and perspectives of end-users and software teams**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '13). Paris, France (April 27-May 2, 2013). New York: ACM Press, pp. 217-226. ^[20%]
- [C.56]  Vatavu, R.-D., Anthony, L. and Wobbrock, J.O. (2012). **Gestures as point clouds: A \$P recognizer for user interface prototypes**. Proceedings of the ACM International Conference on Multimodal Interaction (ICMI '12). Santa Monica, California (October 22-26, 2012). New York: ACM Press, pp. 273-280. *Outstanding Paper Winner*. ^[21%]
- [C.55]  Azenkot, S., Rector, K., Ladner, R.E. and Wobbrock, J.O. (2012). **PassChords: Secure multi-touch authentication for blind people**. Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '12). Boulder, Colorado (October 22-24, 2012). New York: ACM Press, pp. 159-166. *Best Paper Winner*. ^[28%]
- [C.54] Goel, M., Wobbrock, J.O. and Patel, S.N. (2012). **GripSense: Using built-in sensors to detect hand posture and pressure on commodity mobile phones**. Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '12). Cambridge, Massachusetts (October 7-10, 2012). New York: ACM Press, pp. 545-554. ^[21%]
- [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 (May 28-30, 2012). Toronto, Ontario: Canadian Information Processing Society, pp. 121-129. ^[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 (May 28-30, 2012). Toronto, Ontario: Canadian Information Processing Society, pp. 45-52. ^[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). Austin, Texas (May 5-10, 2012). 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). Austin, Texas (May 5-10, 2012). New York: ACM Press, pp. 2687-2696. *Honorable Mention Paper*. ^[23%]
- [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). Austin, Texas (May 5-10, 2012). 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). Austin, Texas (May 5-10, 2012). 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). Austin, Texas (May 5-10, 2012). 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). Dundee, Scotland (October 24-26, 2011). 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). Santa Barbara, California (October 16-19, 2011). 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). Santa Barbara, California (October 16-19, 2011). 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 IFIP TC13 International Conference on Human-Computer Interaction (INTERACT '11). Lisbon, Portugal (September 5-9, 2011). Lecture Notes in Computer Science, vol. 6946/2011. Berlin, Germany: Springer-Verlag, 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). Vancouver, British Columbia (May 7-12, 2011). 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). Vancouver, British Columbia (May 7-12, 2011). New York: ACM Press, pp. 2453-2462. *Honorable Mention Paper*. ^[26%]

- [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). Vancouver, British Columbia (May 7-12, 2011). New York: ACM Press, pp. 705-714. *Best Paper Winner.* ^[26%]
- [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). Vancouver, British Columbia (May 7-12, 2011). 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). Vancouver, British Columbia (May 7-12, 2011). 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). Orlando, Florida (October 25-27, 2010). 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, NY (October 3-6, 2010). 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). Copenhagen, Denmark (September 26-29, 2010). 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). Madrid, Spain (September 21-25, 2010). 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). Ottawa, Ontario (May 31-June 2, 2010). 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). Ottawa, Ontario (May 31-June 2, 2010). 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). Atlanta, Georgia (April 10-15, 2010). 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). Pittsburgh, Pennsylvania (October 25-28, 2009). 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). Victoria, British Columbia (October 4-7, 2009). 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). Victoria, British Columbia (October 4-7, 2009). 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). Boston, Massachusetts (April 4-9, 2009). 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). Boston, Massachusetts (April 4-9, 2009). 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). Boston, Massachusetts (April 4-9, 2009). 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 International Conference on Multimodal Interfaces (ICMI '08). Chania, Crete, Greece (October 20-22, 2008). 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). Halifax, Nova Scotia (October 13-15, 2008). 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). Amsterdam, The Netherlands (September 18-20, 2008). 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). Florence, Italy (April 5-10, 2008). 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). Florence, Italy (April 5-10, 2008). 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). Savannah, Georgia (March 26-28, 2008). 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). Tempe, Arizona (October 15-17, 2007). 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). Tempe, Arizona (October 15-17, 2007). 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). Tempe, Arizona (October 15-17, 2007). 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). Tempe, Arizona (October 15-17, 2007). 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). Newport, Rhode Island (October 7-10, 2007). New York: ACM Press, pp. 159-168. *Invited for Reprise at SIGGRAPH '08.* ^[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). Newport, Rhode Island (October 7-10, 2007). 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). Montreal, Quebec (May 28-30, 2007). 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). San Jose, California (April 28-May 3, 2007). 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). Portland, Oregon (October 23-25, 2006). 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). Montreal, Quebec (April 22-27, 2006). 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 International Conference on Human-Computer Interaction (HCI Int'l '05). Las Vegas, Nevada (July 22-27, 2005). 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). Atlanta, Georgia (October 18-20, 2004). 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). London, Ontario (May 17-19, 2004). 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). Vancouver, British Columbia (November 2-5, 2003). 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). Edinburgh, Scotland (July 8-10, 2002). 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). London, England (June 25-28, 2002). 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). Barcelona, Spain (June 3-7, 2000). 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). Minneapolis, Minnesota (May 10-13, 1998). New York: ACM Press, pp. 392-399. ^[32%]

Refereed Conference Papers (Notes³)

- [N.18] Evans, A. and Wobbrock, J.O. (2014). **Filling in the gaps: Capturing social regulation in an interactive tabletop learning environment**. Proceedings of the International Conference of the Learning Sciences (ICLS '14). Boulder, Colorado (June 23-27, 2014). Atlanta, Georgia: ISLS Press, pp. 1157-1161. ^[32%]
- [N.17] Kay, M., Rector, K., Consolvo, S., Greenstein, B., Wobbrock, J.O., Watson, N.F., Kientz, J.A. (2013). **PVT-Touch: Adapting a reaction time test for touchscreen devices**. Proceedings of the International Conference on Pervasive Computing Technologies for Healthcare (PervasiveHealth '13). Venice, Italy (May 5-8, 2013). Washington, D.C.: IEEE Computer Society, pp. 248-251. ^[30%]
- [N.16] Goel, M., Jansen, A., Mandel, T., Patel, S.N. and Wobbrock, J.O. (2013). **ContextType: Using hand posture information to improve mobile touch screen text entry**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '13). Paris, France (April 27-May 2, 2013). New York: ACM Press, pp. 2795-2798. ^[20%]
- [N.15]  Findlater, L., Froehlich, J., Fattal, K., Wobbrock, J.O. and Dastyar, T. (2013). **Age-related differences in performance with touchscreens compared to traditional mouse input**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '13). Paris, France (April 27-May 2, 2013). New York: ACM Press, pp. 343-346. *Honorable Mention Paper*. ^[20%]
- [N.14] Kane, S.K., Frey, B. and Wobbrock, J.O. (2013). **Access Lens: A gesture-based screen reader for real-world documents**. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '13). Paris, France (April 27-May 2, 2013). New York: ACM Press, pp. 347-350. ^[20%]
- [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 (May 28-30, 2012). Toronto, Ontario: Canadian Information Processing Society, pp. 117-120. ^[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). Austin, Texas (May 5-10, 2012). 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). Vancouver, British Columbia (May 7-12, 2011). 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). Vancouver, British Columbia (May 7-12, 2011). 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). Vancouver, British Columbia (May 7-12, 2011). 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). Madrid, Spain (September 21-25, 2010). 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). Victoria, British Columbia (October 4-7, 2009). 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 AAAI Conference on Artificial Intelligence (AAAI '08). Chicago, Illinois (July 13-17, 2008). Menlo Park, California: AAAI Press, pp. 1532-1536. ^[21%]

³ Although 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.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). Maspalomas, Gran Canaria, Spain (January 13-16, 2008). New York: ACM Press, pp. 349-352. ^[30%]
- [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). Montreux, Switzerland (October 15-18, 2006). 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). Montreal, Quebec (April 22-27, 2006). 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). Portland, Oregon (April 2-7, 2005). 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). Paris, France (October 27-30, 2002). New York: ACM Press, pp. 205-208. ^[22%]

Refereed Conference Papers (with Posters)

- [P.15] O'Leary, K., Dixon, M., Toomim, M., Wobbrock, J.O. and Pratt, W. (2016). **Peer-to-peer psychotherapy tools**. Proceedings of the International Society for Research on Internet Interventions Scientific Meeting (ISRII '16). Seattle, Washington (April 7-9, 2016).
- [P.14] O'Leary, K., Delahunt, C., Dowden, P., Darmansya, I., Heng, J., Riskin, E.A., Ladner, R.E. and Wobbrock, J.O. (2012). **Design goals for a system for enhancing AAC with personalized video**. Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '12). Boulder, Colorado (October 22-24, 2012). New York: ACM Press, pp. 223-224. ^[70%]
- [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). Dundee, Scotland (October 24-26, 2011). 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). Vancouver, British Columbia (May 7-12, 2011). 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). Vancouver, British Columbia (May 7-12, 2011). 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). Vancouver, British Columbia (May 7-12, 2011). 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). Vancouver, British Columbia (May 7-12, 2011). 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). Boston, Massachusetts (April 4-9, 2009). New York: ACM Press, pp. 3733-3738. ^[45%]
- [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). Newport, Rhode Island (October 7-10, 2007). 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). Montreal, Quebec (April 22-27, 2006). 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). Baltimore, Maryland (October 9-12, 2005). 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 Annual Conference (RESNA '05). Atlanta, Georgia (June 23-27, 2005). Arlington, Virginia: RESNA Press.
- [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). Vienna, Austria (April 24-29, 2004). 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). Ft. Lauderdale, Florida (April 5-10, 2003). 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). Minneapolis, Minnesota (April 20-25, 2002). New York: ACM Press, pp. 866-867.

Workshop Papers

- [W.17] Wobbrock, J.O. (2017). **The relevance of nonparametric and semi-parametric statistics to HCI.** Workshop on "Moving Transparent Statistics Forward." ACM Conference on Human Factors in Computing Systems (CHI '17). Denver, Colorado (May 6-11, 2017), Paper No. 2.
- [W.16] Tran, J.J., Riskin, E.A., Ladner, R.E. and Wobbrock, J.O. (2013). **Human-centered approach evaluating mobile sign language video communication.** Grace Hopper Celebration of Women in Computing Conference (GHC '13). Minneapolis, Minnesota (October 2-5, 2013).
- [W.15] Azenkot, S., Rector, K., Ladner, R.E. and Wobbrock, J.O. (2013). **The need for research on mobile technologies for people with low-vision.** Third Mobile Accessibility Workshop (MOBACC '13). ACM Conference on Human Factors in Computing Systems (CHI '13). Paris, France (April 27-May 2, 2013).
- [W.14] Tran, J.J., Riskin, E.A., Ladner, R.E. and Wobbrock, J.O. (2013). **Increasing mobile sign language video accessibility by relaxing video transmission standards.** Third Mobile Accessibility Workshop (MOBACC '13). ACM Conference on Human Factors in Computing Systems (CHI '13). Paris, France (April 27-May 2, 2013).
- [W.13] Chilana, P.K., Ko, A.J. and Wobbrock, J.O. (2013). **Crowdsourced Q&A-based contextual help for web applications: Challenges and opportunities.** Workshop on "Social Media Question Asking." ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW '13). San Antonio, Texas (February 23-27, 2013).
- [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). Austin, Texas (May 5-10, 2012). New York: ACM Press, pp. 1197-1200.
- [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). Austin, Texas (May 5-10, 2012). New York: ACM Press, pp. 2747-2750.
- [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.** Workshop on "Crowdsourcing and Human Computation." ACM Conference on Human Factors in Computing Systems (CHI '11). 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). Vancouver, British Columbia (May 7-12, 2011). 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 International Conference on Software Engineering (ICSE '09). Vancouver, British Columbia (May 17, 2009). 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 Annual Conference on Communication by Gaze Interaction (COGAIN '07). Leicester, England (September 3-4, 2007). Frederiksberg, Denmark: The COGAIN Association, pp. 61-64.^[62]
- [W.4] Wobbrock, J.O. (2006). **The future of mobile device research in HCI.** Workshop on "What is the Next Generation of Human-Computer Interaction?" ACM Conference on Human Factors in Computing Systems (CHI '06). 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, Baltimore, Maryland (October 9-12, 2005).
- [W.2] Wobbrock, J.O., Myers, B.A. and Hudson, S.E. (2003). **Exploring edge-based input techniques for handheld text entry.** Third International Workshop on Smart Appliances and Wearable Computing (IWSAWC '03). In Proceedings of the IEEE Conference

on Distributed Computing Systems Workshops (ICDCSW '03). Providence, Rhode Island (May 19-22, 2003). 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.5] Wobbrock, J.O. and Kay, M. (2016). **Nonparametric statistics in human-computer interaction**. Chapter 7 in J. Robertson and M.C. Kaptein (eds.), *Modern Statistical Methods for HCI*. Switzerland: Springer, pp. 135-170.
- [B.4] Wobbrock, J.O. (2014). **Improving pointing in graphical user interfaces for people with motor impairments through ability-based design**. Chapter 8 in G. Kouroupetroglou (ed.), *Assistive Technologies and Computer Access for Motor Disabilities*. Hershey, PA: IGI Global, pp. 206-253.
- [B.3] Hinckley, K., Jacob, R.J.K., Ware, C., Wobbrock, J.O. and Wigdor, D. (2014). **Input/output devices and interaction techniques**. Chapter 21 in T. Gonzalez, J. Diaz-Herrera and A. Tucker (eds.), *Computing Handbook, Third Edition*. Boca Raton, FL: CRC Press, pp. 21-1 – 21-54.
- [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, CA: 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.13] Kembel, J.A., Kembel, G.A., Kim, D.S., Russell, J., Wobbrock, J., Kembel, G.S., Kembel, J.L., Bella, J.A., Devulkar, S.T. and Wallin, M. (2015). **Server including components for accessing and displaying internet content and for providing same to a client**. U.S. Patent #9,124,665. Issued September 1, 2015.
- [A.12] Kembel, J.A., Kembel, G.A., Kim, D.S., Russell, J., Wobbrock, J., Kembel, G.S., Kembel, J.L. and Gabbay, L.D. (2013). **Indexing, sorting, and categorizing application media packages**. U.S. Patent #8,621,034. Issued December 31, 2013.
- [A.11] Kembel, J.A., Kembel, G.A., Kim, D.S., Russell, J., Wobbrock, J., Kembel, G.S., Kembel, J.L. and Gabbay, L.D. (2013). **System and method for accessing and displaying internet content via an integrated application media package**. U.S. Patent #8,521,833. Issued August 27, 2013.
- [A.10] Kembel, J.A., Kembel, G.A., Kim, D.S., Russell, J., Wobbrock, J., Kembel, G.S., Kembel, J.L. and Gabbay, L.D. (2013). **Displaying time-varying internet based data using application media packages**. U.S. Patent #8,510,407. Issued August 13, 2013.
- [A.9] Kembel, J.A., Kembel, G.A., Kim, D.S., Russell, J., Wobbrock, J., Kembel, G.S., Kembel, J.L. and Gabbay, L.D. (2013). **Component for accessing and displaying internet content**. U.S. Patent #8,510,406. Issued August 13, 2013.
- [A.8] Kembel, J.A., Kembel, G.A., Kim, D., Russell, J., Wobbrock, J., Kembel, G., Kembel, J., Gabbay, L., Medrano, A., Malloy, S., Bella, J., Devulkar, S. and Wallin, M. (2013). **Tracking and tracing user activity with application media packages**. U.S. Patent #8,346,887. Issued January 1, 2013.
- [A.7] Kembel, J.A., Kembel, G.A., Kim, D., Russell, J., Wobbrock, J., Kembel, G., Kembel, J., Bella, J., Devulkar, S. and Wallin, M. (2011). **System and methods for creating and authoring internet content using application media packages**. U.S. Patent #8,020,083. Issued September 13, 2011.
- [A.6] Kembel, J.A., Kembel, G.A., Kim, D.S., Russell, J., Wobbrock, J., Kembel, G.S., Kembel, J.L., Gabbay, L.D., Malloy, S.J. and Chipkin, A.M. (2010). **Apparatus and method for dynamically coordinating the delivery of computer readable media**. U.S. Patent #7,792,947. Issued September 7, 2010.
- [A.5] Kembel, J.A., Kembel, G.A., Kim, D.S., Russell, J., Wobbrock, J., Kembel, G.S., Kembel, J.L., Bella, J.A., Devulkar, S.T. and Wallin, M. (2010). **Apparatus and method of hosting internet content**. U.S. Patent #7,756,967. Issued July 13, 2010.
- [A.4] Wobbrock, J.O. and Myers, B.A. (2010). **Using edges and corners for character input**. U.S. Patent #7,729,542. Issued June 1, 2010.
- [A.3] Kembel, J.A., Kembel, G.A., Kim, D.S., Russell, J., Wobbrock, J., Kembel, G.S., Kembel, J.L. and Gabbay, L.D. (2010). **Apparatus and method for interacting with internet content via one or more applications that do not include native web browsing navigation control features**. U.S. Patent #7,660,868. Issued February 9, 2010.
- [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**. U.S. Patent #7,519,223. Issued April 14, 2009.

- [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.** U.S. Patent #7,356,569. Issued April 8, 2008.

Selected Popular Press

- [R.6] Wobbrock, J. (2016). **Why every innovation can't be the next iPhone.** Real Clear Technology, April 27, 2016.
- [R.5] Wobbrock, J. (2014). **5 lessons that business leaders could learn from academics.** Entrepreneur Magazine, November 7, 2014.
- [R.4] Wobbrock, J. (2014). **Changing consumer behaviors make self-service growth inevitable.** destinationCRM.com, September 26, 2014.
- [R.3] Wobbrock, J. (2014). **How millennials require us to design the technologies of tomorrow.** WIRED, September 5, 2014.
- [R.2] Wobbrock, J. (2014). **Ivory tower research and startup innovation are two sides of a coin.** Entrepreneur Magazine, July 19, 2014.
- [R.1] Wobbrock, J. (2014). **Power to the people: How to make self-service a priority for your website.** Website Magazine, June 20, 2014.

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 for Excellence in Humanities and Creative Arts.*

PAPER AWARDS

- 🏆 **Best Paper Winner, ACM Conference on Human Factors in Computing Systems (CHI '16)**
Mott, Vatavu, Kane & Wobbrock: "Smart Touch: Improving touch accuracy for people with motor impairments with template matching." (Awarded to 23 of 2325 submissions.)
- 🏆 **Best Paper Winner, ACM Conference on Human Factors in Computing Systems (CHI '15)**
Chilana, Ko & Wobbrock: "From user-centered to adoption-centered design: A case study of an HCI research innovation becoming a product." (Awarded to 21 of 2150 submissions.)
- 🏆 **Outstanding Paper Winner, ACM International Conference on Multimodal Interaction (ICMI '12)**
Vatavu, Anthony & Wobbrock: "Gestures as point clouds: A \$P recognizer for user interface prototypes." (Awarded to 3 of 128 submissions.)
- 🏆 **Best Paper Winner, ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '12)**
Azenkot, Rector, Ladner & Wobbrock: "PassChords: Secure multi-touch authentication for blind people." (Awarded to 1 of 89 submissions.)
- 🏆 **Best Paper Winner, ACM Conference on Human Factors in Computing Systems (CHI '11)**
Shinohara & Wobbrock: "In the shadow of misperception: Assistive technology use and social interactions." (Awarded to 15 of 1540 submissions.)
- 🏆 **Best Paper Winner, ACM Conference on Human Factors in Computing Systems (CHI '11)**
Kane, Wobbrock & Ladner: "Usable gestures for blind people: Understanding preference and performance." (Awarded to 15 of 1540 submissions.)
- 🏆 **Best Paper Winner, IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC '10)**
Ko & Wobbrock: "Cleanroom: Edit-time error detection with the uniqueness heuristic." (Awarded to 1 of 78 submissions.)
- 🏆 **Best Paper Winner, ACM Conference on HCI with Mobile Devices and Services (MobileHCI '08)**
Kane, Wobbrock & Smith: "Getting off the treadmill: Evaluating walking user interfaces for mobile devices in public spaces." (Awarded to 4 of 200 submissions.)
- 🏆 **Best Paper Winner, ACM Conference on Human Factors in Computing Systems (CHI '08)**
Wobbrock, Cutrell, Harada & MacKenzie: "An error model for pointing based on Fitts' law." (Awarded to 7 of 710 submissions.)

- 🏆 **Best Paper Winner, ACM Conference on Human Factors in Computing Systems (CHI '08)**
Gajos, Wobbrock & Weld: "Improving the performance of motor-impaired users with automatically-generated, ability-based interfaces." (Awarded to 7 of 710 submissions.)
- 🏆 **Best Paper Winner, ACM Conference on Human Factors in Computing Systems (CHI '06)**
Wobbrock & Myers: "Trackball text entry for people with motor impairments." (Awarded to 3 of 350 submissions.)
- 🏆 **Best Paper Winner, ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '04)**
Wobbrock, Myers, Aung & LoPresti: "Text entry from power wheelchairs: EdgeWrite for joysticks and touchpads." (Awarded to 1 of 50 submissions.)
- 🏆 **Honorable Mention Paper, ACM Conference on Human Factors in Computing Systems (CHI '15)**
Vatavu & Wobbrock: "Formalizing agreement analysis for elicitation studies: New measures, significance test, and toolkit." (Awarded to 5% of 2150 submissions.)
- 🏆 **Honorable Mention Paper, ACM Conference on Human Factors in Computing Systems (CHI '13)**
Findlater, Froehlich, Fattal, Wobbrock & Dastyar: "Age-related differences in performance with touchscreens compared to traditional mouse input." (Awarded to 5% of 1963 submissions.)
- 🏆 **Honorable Mention Paper, ACM Conference on Human Factors in Computing Systems (CHI '12)**
Goel, Findlater & Wobbrock: "WalkType: Using accelerometer data to accommodate situational impairments in mobile touch screen text entry." (Awarded to 5% of 1577 submissions.)
- 🏆 **Honorable Mention Paper, ACM Conference on Human Factors in Computing Systems (CHI '12)**
Findlater, Lee & Wobbrock: "Beyond QWERTY: Augmenting touch screen keyboards with multi-touch gestures for non-alphanumeric input." (Awarded to 5% of 1577 submissions.)
- 🏆 **Honorable Mention Paper, ACM Conference on Human Factors in Computing Systems (CHI '11)**
Findlater, Wobbrock & Wigdor: "Typing on flat glass: Examining ten-finger expert typing patterns on touch surfaces." (Awarded to 5% of 1540 submissions.)
- 🏆 **Honorable Mention Paper, ACM Conference on Human Factors in Computing Systems (CHI '11)**
Wobbrock, Findlater, Gergle & Higgins: "The Aligned Rank Transform for nonparametric factorial analyses using only ANOVA procedures." (Awarded to 5% of 1540 submissions.)
- 🏆 **Best Paper Nominee, ACM Conference on Human Factors in Computing Systems (CHI '09)**
Wobbrock, Morris & Wilson: "User-defined gestures for surface computing." (Awarded to 5% of 750 submissions.)

OTHER AWARDS

ACM SIGCHI Social Impact Award (2017)

Major international award for HCI research applied to pressing social needs. Awarded at ACM CHI 2017 in Denver, Colorado on May 7, 2017.

AnswerDash Case by Harvard Business School and the University of Washington Foster School of Business (2016)

AnswerDash was written up and published as a case study by Harvard Business School professor Elie Ofek and University of Washington Foster School of Business professor Jeffrey D. Shulman. Case #9-516-106. June 13, 2016.

Gartner Cool Vendor Award for CRM Customer Service and Support (2015)

Awarded to AnswerDash based on my demos to analysts as Co-founder / CEO for being an "innovative vendor with applications to deliver a superior customer service experience and/or reduce operational costs."

University of Washington Presidential Entrepreneurial Faculty Fellow (2014-2016)

For "success initiating groundbreaking programs for translation, collaborating with industry, or in translating research into products or therapies." Award included \$10,000 over two years.

Kynamatrix Research Network "Innovation through Collaboration" Award (2014)

For research entitled, "Human-centered approach optimizing the lower limits of intelligible mobile sign language video communication," by Jessica Tran with advisors Eve Riskin, Richard Ladner and Jacob Wobbrock. Award included \$1,000.

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," by Shaun K. Kane co-authored with Jeffrey P. Bigham and Jacob O. Wobbrock.

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,” by Susumu Harada co-authored with Jacob O. Wobbrock 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,” by Jacob O. Wobbrock. Award included \$500 and an invited Distinguished Lecture at the School of Computer Science, Carnegie Mellon University. Was 1 of 2 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,” by Jacob O. Wobbrock co-authored with Brad A. Myers. Award included \$20,000 and an invitation to attend the NISH National Training and Achievement Conference, May 22-24 in New Orleans, LA.

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,” by Jacob O. Wobbrock. Award included \$200, Stanford University.

FUNDING**Federal Research Grants**

- NSF Fogarty, J., Caspi, A., Ladner, R.E. and Wobbrock, J.O. (2017-2021). “CHS-MEDIUM: Improving the accessibility of mobile applications by enabling third-party assessment, repair, and enhancement.” National Science Foundation [IIS-1702751]: \$1,230,547.
- NSF Ladner, R.E., Burgstahler, S., Ko, A.J. and Wobbrock, J.O. (2015-2020). “BPC-AE: AccessComputing – Third extension.” National Science Foundation [CNS-1539179]: \$3,797,990.
- NSF Wobbrock, J.O. and Patel, S.N. (2012-2016). “HCC-SMALL: Understanding, sensing, and accommodating situational impairments in mobile computing.” National Science Foundation [IIS-1217627]: \$499,722.
- NSF Wobbrock, J.O. and Shinohara, K. (2012-2013). “DOCTORAL DISSERTATION RESEARCH: Developing Design for Social Acceptance: Including social acceptability in the design of assistive devices.” National Science Foundation [IIS-1230435]: \$15,000.
- NSF Wobbrock, J.O. (2010-2016). “CAREER: Advancing accessible computing with tools for Ability-Based Design.” National Science Foundation [IIS-0952786]: \$509,359.
- NSF Levy, D.M. and Wobbrock, J.O. (2009-2010). “EAGER: An empirical exploration of contemplative multitasking.” National Science Foundation [IIS-0942646]: \$127,872.
- NSF Wobbrock, J.O. (2009-2010). REU supplement for undergraduate research. National Science Foundation [IIS-0939684]: \$16,000.
- NSF Wobbrock, J.O., Johnson, K.L. and Weld, D.S. (2008-2012). “HCC-SMALL: The end of pointing and clicking: Improving computer access with goal crossing.” National Science Foundation [IIS-0811063]: \$448,905.
- NSF Riskin, E.A., Ladner, R.E. and Wobbrock, J.O. (2008-2012). “HCC-SMALL: MobileASL: Providing mobile video communications to the Deaf community through user-centered design and deployment.” National Science Foundation [IIS-0811884]: \$449,930.

Industry Research Gifts

- MANI Wobbrock, J.O. (2017). Support for the Mobile + Accessible Design Lab. Mani Charitable Foundation: \$13,500.
- BAIDU Wobbrock, J.O. (2017). Support for the Mobile + Accessible Design Lab. Baidu: \$60,000.
- MSFT Wobbrock, J.O. (2014). Donation of a Perceptive Pixel display for studying touch-based human-computer interaction. Microsoft: valued at \$10,000.
- GOOGLE Wobbrock, J.O. (2014-2015). “Smart Touch: Improving the accessibility of touch screens on Android tablets and smartphones for people with motor impairments.” Google Research Award: \$41,107. ^[168]
- MSR Wobbrock, J.O. (2012). Support for research and collaboration. Microsoft Research: \$15,000.
- GOOGLE Wobbrock, J.O. and Huang, J. (2011-2012). “Cursor mining in web search.” Google Research Award: \$50,000.
- MSR Wobbrock, J.O. (2010-2012). Support for the AIM Research Group. Microsoft Research: \$50,000.
- INTEL Wobbrock, J.O. (2010). Support for new mobile interfaces for nomadic usability and accessibility. Intel: \$25,000.

MSFT	Wobbrock, J.O. (2009). Donation of a Microsoft Surface interactive tabletop and associated software for studying typing on touch surfaces. Microsoft: valued at \$15,000.
INTEL	Wobbrock, J.O. (2008). Support for software development for HCI research. Intel: \$30,000.
MSR	Wobbrock, J.O. (2008-2010). Support for the AIM Research Group. Microsoft Research: \$50,000.
NISH	Harada, S., Wobbrock, J.O. and Landay, J.A. (2008). Second-place award for VoiceDraw project. NISH: \$5,000.
WRF	Wobbrock, J.O. (2007). Support for development of iPhone/iPod EdgeWrite. Washington Research Foundation: \$20,000.
INTEL	Wobbrock, J.O. (2006). Support for research on new input and interaction techniques, assistive technologies, mobile computing interfaces, and other areas of HCI. Intel Labs Seattle: \$25,000.

University Research Funding

uw	Wobbrock, J.O. (2016). "Furthering Ability-Based Design: Simulating motor-impaired mouse movement for evaluating the accessibility of user interfaces." University of Washington Information School: \$10,000.
uw	Wobbrock, J.O. (2014). Presidential Entrepreneurial Faculty Fellow. University of Washington: \$10,000.
uw	Landay, J.A. and Wobbrock, J.O. (2008-2009). "Beyond speech recognition: Harnessing the power of voice for effective control of computer interfaces." Royalty Research Fund. University of Washington: \$38,000.

Commercialization Financing

vc	Colleran, W.T. and Wobbrock, J.O. (2015). Second-round venture capital financing for AnswerDash. Voyager Capital, Summit Capital, Arnold Ventures, WRF Capital, W Fund, and one angel investor: \$2,875,000.
BANK	Wobbrock, J.O. (2014). First-round venture debt financing for AnswerDash. Silicon Valley Bank: \$1,000,000.
vc	Wobbrock, J.O. and Ko, A.J. (2013). First-round venture capital financing for AnswerDash (formerly Qazzow). WRF Capital, Voyager Capital, W Fund, Summit Capital, Arnold Ventures, and five angel investors: \$2,540,000.
vc	Wobbrock, J.O. and Ko, A.J. (2013). Seed financing for AnswerDash (formerly Qazzow). W Fund: \$500,000.
uw	Wobbrock, J.O., Ko, A.J. and Chilana, P.K. (2011). "Chime: Bringing crowdsourced contextual help to the masses." Commercialization Gap Fund. University of Washington Center for Commercialization: \$50,000.

ORIGINAL PRESS

Academic Press Coverage

1. Arunabh Satpathy. "Why the United Airlines debacle was just bad service design." Medium.com, May 4, 2017.
2. Staff. "HCII alumnus Jacob Wobbrock to receive the SIGCHI Social Impact Award at CHI 2017." Human-Computer Interaction Institute News & Events, Carnegie Mellon University, May 2, 2017.
3. Staff. "Slide to unlock." Interactive Feature for the University of Washington Be Boundless Campaign, April 3, 2017.
4. Staff. "Wobbrock, MAD Lab make technology accessible for all." UW Information School News, February 21, 2017.
5. Staff. "Jacob Wobbrock honored with SIGCHI Social Impact Award." UW Information School News, February 17, 2017.
6. IANS. "Baidu's Deep Speech 2 recognition software can write text messages faster than humans: Study." BGR India, August 30, 2016.
7. IANS. "Smartphone speech recognition software can write three times faster than humans." The Economic Times, August 29, 2016.
8. Carmen Triola. "This speech recognition software is much faster than human typists." Mashable, August 29, 2016.
9. Abhimanyu Ghoshal. "Stanford speech recognition study suggests you should give dictation apps a chance." TNW Insider, August 27, 2016.
10. Nick Lavars. "Hey Siri, study says speech recognition software blitzes humans at texting." New Atlas, August 26, 2016.
11. Jasmine Solana. "Quick pro quo: Software writes text 3x faster than any human can." Futurism, August 25, 2016.
12. Staff. "Study: Talking to your smartphone is 3X faster than typing." UW Information School News, August 25, 2016.
13. Alex Perala. "Dictation faster, more accurate than texting: Study." Mobile ID World, August 24, 2016.
14. Eric David. "Voice recognition now faster and more accurate than typing, says Stanford study." SiliconANGLE, August 24, 2016.
15. Adam Rowe. "Study: Voice recognition software officially types better than humans." Tech.Co, August 24, 2016.
16. Luke Dormehl. "Smartphone speech recognition can text 3 times faster than you can type." Digital Trends, August 24, 2016.
17. Aarti Shahani. "Voice recognition software finally beats humans at typing, study finds." All Things Considered, NPR News, August 24, 2016.
18. Bjorn Carey. "Smartphone speech recognition can write text messages three times faster than human typing." Stanford News, August 24, 2016.
19. Michele Debczak. "8 ways to refresh during your lunch break." MSN Lifestyle, June 21, 2016.
20. Ian Mills. "Meditation in the workplace – Making staff more productive." Huffpost Business, May 24, 2016.
21. Staff. "Smart Touch accessibility work earns Best Paper Award at CHI." UW Information School News, March 17, 2016.
22. Staff. "Best paper awards for the iSchool at CHI." UW Information School News, March 10, 2015.
23. Harry Bradford. "These 4 genius hacks let you use an iPhone with gloves on." The Huffington Post, Tech section, January 26, 2015.

24. University of Washington Continuing Education. "UW Master of Human-Computer Interaction + Design." December 10, 2014.
25. Michelle Burbick. "A millennial minute: My take as a young, digital worker." No Jitter: Insight for the Connected Enterprise, November 17, 2014.
26. Erin Van Bronkhorst. "UW names 5 profs to be key mentors for health care enterprise." Puget Sound Business Journal, July 2, 2014.
27. Staff. "Wobbrock and Ko appointed 2014 Presidential Entrepreneurial Faculty Fellows." UW Information School News, June 30, 2014.
28. Clare LaFond. "UW appoints 2014 Presidential Entrepreneurial Faculty Fellows." UW Center for Commercialization News, June 30, 2014.
29. Staff. "David McDonald to chair HCDE; new HCI faculty bring data visualization and design expertise." UW Information School News, June 20, 2014.
30. Staff. "Jacob Wobbrock receives Google Faculty Research Award." UW Information School News, March 3, 2014.
31. Elisha Goldstein. "New research says mindful-multitasking leads to more focus and calm." The Huffington Post, Healthy Living section, May 7, 2013.
32. Nic Halverson. "Gesture reader lets blind decipher documents." Discovery News, May 1, 2013.
33. Zahra Barnes. "Overwhelmed? (Don't answer that.) Meditation will help. Stay with us here." Self Magazine, May 2013, p. 120.
34. Amy Busch. "Meditations on the Information Age." The Daily of the University of Washington, April 30, 2013.
35. Douglas Eby. "Creative thinking and popular psychology books." Psych Central, December 19, 2012.
36. Linda Melone. "12 gifts of good health." The Costco Connection 27 (12), December 2012, p. 65.
37. Maria Konnikova. "The power of concentration." The New York Times, December 16, 2012, p. SR8.
38. Will Knight. "What comes after the touch screen?" M.I.T. Technology Review, October 11, 2012.
39. Staff. "Jacob Wobbrock awarded \$500K NSF grant to design more accessible mobile devices." UW Information School News, September 11, 2012.
40. UW TV. "University of Washington campus tour 2012." August 29, 2012.
41. UW TV. "iOn the future." August 10, 2012.
42. Anita Bruzzese. "Meditation can keep you more focused at work, study says." USA Today, Money section, July 8, 2012.
43. Andrew Leibs. "Download free Windows software to make PC more accessible." About.com, 2012.
44. Mónica Guzmán. "No app for applying ourselves mindfully: Drowning in tech distractions? Meditation can help." The Seattle Times, Local News section, June 16, 2012.
45. Molly Brown. "New research: Meditation makes you a better geek." GeekWire, June 13, 2012.
46. Peter Kelley and Catherine O'Donnell. "Mindful multitasking: Meditation first can calm stress, aid concentration." University of Washington News, June 13, 2012.
47. Jim Giles. "Touchscreens learn your habits to help you type faster." New Scientist, June 2, 2012, p. 23.
48. Staff. "UW President Michael Young attends dub retreat." UW CSE News, April 27, 2012.
49. Joon Yi. "Two UW students named Facebook Fellows." The Daily of the University of Washington, February 21, 2012.
50. Todd Bishop. "Better typing while walking, and other cool stuff from UW." GeekWire, October 20, 2011.
51. Eric Smalley. "Portico takes tablets off-screen." C|NET News, October 12, 2011.
52. Duncan Graham-Rowe. "Taking touch beyond the touch screen." M.I.T. Technology Review, September 23, 2011.
53. June Simms. "A better computer mouse cursor for the disabled." Voice of America, Science and Technology section, April 17, 2011.
54. Mark Gibbs. "Improved mouse control for users with disabilities." PC World, Business Center section, April 16, 2011.
55. Mark Huffman. "Free software makes using a mouse easier: Designed for people with motor disabilities." ConsumerAffairs.com, April 13, 2011.
56. Slashdot. "Free software helps disabled use mouse." Slashdot.com, Hardware section, April 10, 2011.
57. Darren Quick. "Researchers tackle mouse control from a different angle." gizmag, Personal Computing section, April 10, 2011.
58. Catherine O'Donnell. "Free software makes computer mouse easier for people with disabilities." University of Washington News, April 7, 2011.
59. Staff. "UW, iSchool dominate CHI awards." UW Information School News, April 5, 2011.
60. Staff. "Record year for iSchool, dub at CHI 2011." UW Information School News, February 17, 2011.
61. Staff. "Success by design." UW Information School News, November 8, 2010.
62. Staff. "Drs. Ko, Wobbrock earn best paper at VL/HCC." UW Information School News, September 24, 2010.
63. 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.
64. Jean Patterson. "Junior faculty blaze path forward for iSchool." UW Information School News, July 16, 2010.
65. Justin Rattner. Research@Intel Day 2010 keynote with Intel CTO Justin Rattner, June 30, 2010.
66. Slashdot. "Demo of laptop/tabletop hybrid UI." Slashdot.com, Hardware section, April 14, 2010.
67. KING 5 News. "UW student named Facebook Fellow." KING5.com, Local News section, April 14, 2010.
68. Larry Larsen. "Using your voice to paint." Channel 9 from MSDN. April 1, 2010.
69. Nick Eaton. "Tabletop UI, wireless power and more from Intel Labs Seattle." Seattle Post-Intelligencer Blogs. September 30, 2009.
70. Staff. "Tuning technology to special needs." UW Information School News, May 28, 2009.
71. Larry Greenemeier. "Microsoft tries to get a grip on touch computing with Surface." Scientific American, 60-Second Science Blog, April 11, 2009.
72. Ina Fried. "Microsoft puts finger on better gestures." C|NET News, April 6, 2009.
73. Ivanhoe Newswire. "Pimp my program: Help for the disabled." Television news release, March 2009.
74. Richard Seven. "Researchers work on developing sign language for cellphones." The Seattle Times, Health section, December 2, 2008.
75. Richard Seven. "UW creates a computer mouse driven by sound." The Seattle Times, Business/Technology section, October 6, 2008.
76. Robert P. Bennett. "Squaring off with EdgeWrite." Disaboom, Tech & Tools section, September 23, 2008.
77. Lee Bruno. "An interface for your eyes only." The Guardian (U.K.), August 28, 2008.

78. Hannah Hickey. "Signing by cell: Can you see me now?" University of Washington News, August 21, 2008.
79. Microsoft Corporation. "The Dobbs Challenge—Contest winners announced!" Mr. Spiff's Revenge by POW Studios, Best Windows Game, August 2, 2008.
80. Hannah Hickey. "For your eyes only: Custom interfaces make computer clicking faster, easier." University of Washington News, July 15, 2008.
81. Lynne Harris. "NISH recognizes college engineers for inventions designed to help people with disabilities in the workplace." National press release, June 11, 2008.
82. Staff. "iSchool garners three Best Paper Awards at CHI 2008." UW Information School News, April 4, 2008.
83. Virginia Gold. "SIGCHI announces Best of CHI 2008 award winners." ACM News Release, April 3, 2008.
84. Staff. "Dominating DUB." Etc: Campus News & Notes. University Week 25 (18), February 28, 2008, p. 3.
85. Staff. "COMPUTER: Malen mit der Stimme." Der Spiegel 43, October 22, 2007, p. 215.
86. Patrick Pettibon. "CMU, Pitt receive \$15 million research grant." The Tartan, August 28, 2006.
87. Holly Witteman. "Perspectives on CHI 2006." SIGCHI Bulletin 38 (3), July 2006.
88. Ivanhoe Broadcast News. "Hi-tech typing." Television news release, October 2005.
89. Vicki Contavespi. "NISH announces winners of 2004-2005 National Scholar Awards for Workplace Innovation & Design." National press release, May 2005.
90. Byron Spice. "Text with an edge." Pittsburgh Post-Gazette, Monday, November 29, 2004, p. A-6. Full-page feature.
91. Todd Bishop. "Microsoft DemoFest offers look at latest university research." Seattle Post-Intelligencer, Wednesday, August 4, 2004, p. E-1.
92. Staff. "Prototype: Write steady." M.I.T. Technology Review 108 (8), August 1, 2005, p. 27.
93. Staff. "Science honors." Pittsburgh Post-Gazette, Science & Environment section, Monday, July 4, 2005, p. A-6.
94. Staff. "Personal mention." Carnegie Mellon 8½ × 11 News 15 (46), June 9, 2005.
95. Steve August. "Debugging the user code, part 2: Integrating users into product development." productmarketing.com Magazine 2 (1), January/February 2004, pp. 17-23.
96. Alison Overholt. "Sidebar: Pardon the interruption." Fast Company Magazine 63, October 2002, p. 118.

Entrepreneurship Press Coverage

1. Sam Sawchuk. "Meet Jacob O. Wobbrock | An entrepreneur focused on interactive solutions that improve the user and customer experience." The Huffington Post, December 6, 2016.
2. Dom Nicastro. "What's in a name: PlaceIQ, AnswerDash, Redbooth." CMSWire, October 22, 2015.
3. Rachel Lerman. "Tech Spotlight: AnswerDash solves your confusion when using websites." The Seattle Times, September 20, 2015.
4. Taylor Soper. "UW spinout AnswerDash raises \$2.9M to support growth of online contextual help platform." GeekWire, September 14, 2015.
5. Michael Guta. "AnswerDash earns 'Cool Vendor' status from Gartner." TMCnet, Call Center Services Featured Article, July 20, 2015.
6. Kristina Knight. "Ad Roundup: Platforms to protect data, give answers." BizReport, July 9, 2015.
7. AnswerDash. "Gartner names AnswerDash a 'Cool Vendor' in CRM Customer Service and Support, 2015." Marketwired, July 9, 2015.
8. Adam Bryant. "Jake Wobbrock of AnswerDash: Lead with strengths, and weaknesses." The New York Times, June 30, 2015.
9. John Cook. "Tech Moves: Ex-Impinj CEO tapped for top post at AnswerDash." GeekWire, June 3, 2015.
10. AnswerDash. "AnswerDash appoints William Colleran as new Chief Executive Officer." Marketwired, June 3, 2015.
11. Staff. "People on the move: William Colleran, Ph.D." Seattle Business Magazine, June 2, 2015.
12. Maurice Nagle. "Contact Center Analytics week in review: Toshiba, SAS, AnswerDash and more." Contact Center Analytics Review, May 9, 2015.
13. Casey Houser. "AnswerDash matches customer concerns with website and app UX." Contact Center Analytics Review, May 5, 2015.
14. Staff. "AnswerDash launches new web analytics features." destinationCRM.com, April 23, 2015.
15. AnswerDash. "AnswerDash analytics provides instant insight into web users' behaviors." Marketwired, April 23, 2015.
16. Staff. "The evolution of an iSchool startup." UW Information School News, April 10, 2015.
17. Olive Huang, Jenny Sussin, Steve Blood, Brian Manusama, Jim Davies, Michael Maoz, Drew Kraus. "Cool Vendors in CRM customer service and support, 2015." Gartner, April 9, 2015.
18. Steven Goldsmith. "AnswerDash aims to make your website smarter." Puget Sound Business Journal, March 20, 2015.
19. Ian Barker. "Web app self-service reduces support queries and cuts costs." BetaNews, February 17, 2015.
20. AnswerDash. "AnswerDash reports customers experience an average cost savings of \$20K a year in customer support." Marketwired, February 12, 2015.
21. John Cook. "Tech moves..." GeekWire, January 27, 2015.
22. AnswerDash. "AnswerDash announces new hire Kevin Knoepp as Vice President of Engineering." Marketwired, January 22, 2015.
23. Rieva Lesonsky. Cooking lessons for startups, video contests and more. SmallBizDaily, December 20, 2014.
24. Ian Barker. "Self service platform helps cut online help desk requests." BetaNews, December 18, 2014.
25. Derek Schou. "Ease the pressure on your support team with new AnswerDash integration." Website Magazine, December 18, 2014.
26. Staff. "AnswerDash integrates with Zendesk." destinationCRM.com, December 18, 2014.
27. AnswerDash. "AnswerDash transforms Help Center into point-and-click contextual self-service platform with Zendesk integration." Marketwired, December 18, 2014.
28. Paula Bernier. "Making websites pay off." TMCnet, December 4, 2014.
29. Derek Schou. "Don't lose out on holiday conversions with a slow site." Website Magazine, November 10, 2014.
30. Staff. "A dubious honor for IRS.gov, cyber-training priorities, worldwide warrants and more." Federal Computer Week, November 7, 2014.
31. Ian Barker. "Usability survey reveals the most frustrating websites." BetaNews, November 7, 2014.

32. AnswerDash. "IRS.gov, Comcast.com and CenturyLink.com are 2014's most frustrating websites, according to AnswerDash's website usability survey." Marketwired, November 7, 2014.
33. Allison Howen. "Q&A for every page of your site." Website Magazine, October 14, 2014.
34. Paula Bernier. "AnswerDash makes websites more helpful." TMCnet, Call Center Software Featured Article, October 8, 2014.
35. Barry Levine. "U. of Washington-spinoff AnswerDash launches to make everything on a Web page questionable." VentureBeat, October 8, 2014.
36. AnswerDash. "U.S. Green Building Council selects AnswerDash's contextual website help technology to power USGBC.ORG." Marketwired, October 8, 2014.
37. Jake Wiederrich. "Sound Startups." KIRO 7 News Special, October 4, 2014.
38. Matt Mullen. "AnswerDash provides 'first line of defense' for website customer service inquiries." 451 Research, Impact Report, August 21, 2014.
39. Taylor Soper. "New record: University of Washington spun out 18 startups last year." GeekWire, July 2, 2014.
40. Sam Becker. "Bright idea: UW-spawned platform makes websites more responsive." Seattle Business Magazine 25 (7), July 2014.
41. Clare LaFond. "University of Washington launches record 18 start-ups in FY14; UW ranks third in nation for number of companies spinning out of a university." UW Center for Commercialization News, June 28, 2014.
42. Benjamin Romano. "Stuck on Website 'Help Island'? First UW iSchool Spinout Has the Answer." Xconomy, May 23, 2014.
43. Taylor Soper. "UW spinout AnswerDash launches, names ex-Drugstore.com CEO Dawn Lepore to board." GeekWire, May 20, 2014.
44. Staff. "Qazzow becomes AnswerDash." Northwest Innovation, May 20, 2014.
45. Qazzow. "Qazzow changes name to AnswerDash and welcomes new board of directors and advisory board members." PRWeb, May 20, 2014.
46. Jay Sommerville. "Sound Startups" 30-second spot featuring AnswerDash, Moz, and Redfin. KIRO 7 News. First aired April 21, 2014.
47. Taylor Soper. "Husky Pride: Check out these 5 startups founded by University of Washington grads, professors." GeekWire, April 16, 2014.
48. Joe Veyera. "iSchool spinout receives funding for Q&A technology." The Daily, January 5, 2014.
49. John Cook. "Startup Hall: University of Washington looks to transform old law school into magnet for startups." GeekWire, December 17, 2013.
50. John Cook. "UW spin-out Qazzow scores \$2.4M to bolster customer service on e-commerce sites." GeekWire, December 16, 2013.
51. Emily Parkhurst. "Helping 'help': UW startup gets \$2.4M to provide smarter in-app help." Puget Sound Business Journal, December 16, 2013.
52. Staff. "Qazzow lands \$2.4M." Northwest Innovation, December 16, 2013.
53. Qazzow. "Qazzow secures \$2.4 million in Series A financing." PRWeb, December 16, 2013.
54. Gregg Bayes-Brown. "Institutions at the heart of the west coast success story." Global University Venturing News, November 18, 2013.
55. Gregg Bayes-Brown. "W Fund answers Qazzow with \$500k." Global University Venturing News, November 6, 2013.
56. John Cook. "UW spin out Qazzow scores \$500,000, helps customers get questions answered on e-commerce sites." GeekWire, November 5, 2013.
57. Clare LaFond. "UW spin out Qazzow receives seed investment from W Fund." UW Center for Commercialization News, November 5, 2013.
58. Staff. "iSchool startup Qazzow receives seed investment from W Fund." UW Information School News, November 5, 2013.
59. Staff. "Qazzow scores \$500,000 seed investment." UW CSE News, November 5, 2013.
60. Clare LaFond. "C4C New Ventures Facility recognized among world's top business incubators." UW Center for Commercialization News, October 8, 2013.
61. Taylor Soper. "Innovation Showcase: E-commerce, learning and medical ventures in the spotlight." GeekWire, January 22, 2013.

TEACHING

Coursera.org

Creator / Instructor	MOOC	Designing, Running, and Analyzing Experiments	>11,000 learners since Feb. 2016
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University of Washington

Creator / Instructor	INSC 599	Practical Statistics for HCI (Independent Study)	35+ students since Nov. 2010
Creator / Instructor	INFX 565	Designing Information Experiences	Spr. 2016, 2017
Creator / Instructor	INFO 463	Input and Interaction	Spr. 2008-2009, 2012, 2016
Instructor	INSC 570	Research Design	Aut. 2006-2009, 2015
Instructor	CSE 590W	Research Seminar: Accessibility	Spr. 2012
Instructor	IMT 540A	Design Methods for Interaction and Systems	Aut. 2007-2009
Instructor	INFO 470	Research Methods in Informatics	Aut. 2010-2011, 2016
Instructor	INFO 444	Value Sensitive Design	Spr. 2007

Carnegie Mellon University

Creator	HCI 291	HCI for Computer Scientists	Spr. 2004
TA	HCI 413	Human Factors	Aut. 2004

Stanford University

TA	CS 247B	Human-Computer Interaction: Contextual & Organizational Issues	Spr. 1999
TA	CS 201	Computers, Ethics & Social Responsibility	Win. 1999
TA	CS 147	Introduction to Human-Computer Interaction Design	Aut. 1998-1999
Section Leader	CS 106X	Programming Methodology and Abstractions	Spr. 1999
Section Leader	CS 106A	Programming Methodology	Aut. 1997

INDUSTRY POSITIONS AND CONSULTING

Industry Positions

1. Co-founder & Chief Experience Officer (CXO) (advisory), AnswerDash – Seattle, WA (Dec. 2015 – present)
2. Co-founder & Chief Scientist, AnswerDash – Seattle, WA (May – Dec. 2015)
3. Co-founder, President & CEO, AnswerDash – Seattle, WA (Sept. 2012 – May 2015)
4. Research Intern, Microsoft Research – Redmond, WA (May – Aug. 2003)
5. Sr. Software Engineer, DoDots – Sunnyvale, CA (June 2000 – Feb. 2001)
6. Software Engineer, DoDots – Mountain View, CA (Oct. 1999 – June 2000)
7. Technical Intern, Intel-Mattel Smart Toy Lab – Portland, OR (June – Sept. 1999)
8. Technical Intern, Intel – Hillsboro, OR (June – Sept. 1997)

Technology Consulting

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

Expert Witness Consulting

1. The Taillieu Law Firm – Beverly Hills, CA (Jan. – Feb. 2014)
2. Finnegan, Henderson, Farabow, Garrett & Dunner – Washington, D.C. (Dec. 2011 – July 2012)
3. Kecker & Van Nest – San Francisco, CA (Sept. 2011 – Jan. 2012)
4. Finnegan, Henderson, Farabow, Garrett & Dunner – Washington, D.C. (June 2010 – June 2011)
5. Kecker & Van Nest – San Francisco, CA (June 2010 – June 2011)
6. K&L Gates – Seattle, WA (Oct. – Nov. 2007)

PUBLIC PRESENTATIONS

External Research Talks

1. “Ability-Based Design: Elevating Ability over Disability in Accessible Computing.” (2017). MISC Invited Lecture, University of Michigan School of Information. Ann Arbor, MI.
2. “Ability-Based Design: Elevating Ability over Disability in Accessible Computing.” (2017). Luxembourg Institute of Science and Technology. Belval / Esch-sur-Alzette, Luxembourg.
3. “Input for people with motor impairments.” (2016). State-of-the-art mini-talk, UW CSE MSR Summer Institute on Expanding Accessibility Research. Alderbrook Resort, Union, WA.
4. “From plastic to pixels: In pursuit of effective touch-typing on touch screens.” (2012). Research presentation, Microsoft Research. Redmond, WA.
5. “Back to basics: Making pointing accessible.” (2011). Invited speaker, Stanford University seminar on People, Computers and Design (CS 547). Stanford, CA.
6. “Flipping the burden: Making computers accessible with everyday input devices.” (2008). Distinguished Lecture, School of Computer Science, Carnegie Mellon University. Pittsburgh, PA.
7. “Flipping the burden: Towards ability-based design.” (2008). Invited speaker, HCI Seminar, Computer Science Department, University of Illinois—Urbana-Champaign. Champaign, IL.
8. “Accessible handheld and desktop text entry for people with motor impairments.” (2005). Award presentation, NISH National Training and Achievement Conference. New Orleans, LA.
9. “Imagine EdgeWrite.” (2005). Invited demonstration, Microsoft Research Tech Fair, Library of Congress. Washington, D.C.

Internal Research Talks

1. “Ability-Based Design: Elevating Ability over Disability in Accessible Computing.” (2017). University of Washington DUB Group.
2. “Ability-Based Design: Elevating Ability over Disability in Accessible Computing.” (2017). University of Washington Information School Research Symposium.
3. “From plastic to pixels: In pursuit of effective touch-typing on touch screens.” (2012). University of Washington DUB Group.
4. “Back to basics: Making pointing accessible.” (2011). University of Washington DUB Group.
5. “Accessing the world: Projects by the iSchool’s AIM Research Group.” (2009). University of Washington Board of Regents.

6. "Overview of the AIM Research Group." (2009). All-Board Meeting, University of Washington Information School.
7. "Making computers accessible with everyday input devices." (2009). Research Conversation, University of Washington Information School.
8. "User-defined vs. researcher-defined gestures." (2009). University of Washington DUB Group.
9. "An error model for pointing based on Fitts' law." (2008). University of Washington DUB Group.
10. "Achieving fundamental improvements in computer access." (2008). Design Machine Group, University of Washington Architecture Department.
11. "Movement, input and errors." (2007). University of Washington DUB Group.
12. "Improving the accessibility of mobile devices for motor and situational impairments." (2007). Invited speaker, iEdge Conference, University of Washington ASIS&T Chapter.
13. "EdgeWrite text entry and mobile accessibility." (2006). Founders' Board Meeting, University of Washington Information School.

Presentations to Industry, Non-Profits, or Government

1. "Research Projects from the Mobile + Accessible Design Lab." (2017). Presentation to the Chief Accessibility Officer of Microsoft Corporation and the Chief Scientist of Microsoft Research. Redmond, WA.
2. "Research Projects from the Mobile + Accessible Design Lab." (2017). Presentation to the Director of Inclusive Hiring and Accessibility, Microsoft Corporation. Redmond, WA.
3. "The Five F's for Successful University Startups." (2015). Invited panelist, visit to New Ventures Facility by Washington State congressmen and senators. Seattle, WA.
4. "How to get website self-service right." (2015). Invited speaker, WritersUA West User Assistance Boot Camp. Seattle, WA.
5. "How millennials are shaping the future of customer service." (2015). Invited speaker, Support and Service Management Consortium. Seattle, WA.
6. "AnswerDash." (2014). Invited speaker, Western Regional State Small Business Credit Initiative Meeting. Seattle, WA.
7. "Research outside academia." (2014). Invited panelist, DUB Annual Retreat. Seattle, WA.
8. "Bootstrapped-to-public: The entrepreneurial path." (2014). Invited panelist, UW Foster School of Business and Stanford Graduate School of Business. Seattle, WA.
9. "AnswerDash." (2014). Presenter, UW Center for Commercialization New Ventures Facility Media Event. Seattle, WA.
10. "AnswerDash." (2014). Invited speaker, Seattle Tech Meetup. Seattle, WA.
11. "AnswerDash." (2014). Keynote speaker, UW Information School iAffiliates Day. Seattle, WA.
12. "Qazzow." (2013). Invited speaker, UW Information School All-Board Meeting. Seattle, WA.
13. "Qazzow: Sales, savings, and insights for e-commerce." (2013). Presenter, University Research and Entrepreneurship Symposium (URES '13). Boston, MA.
14. "Qazzow: Sales. Savings. Insights." (2013). Presenter, Technology Alliance Winter 2013 Innovation Showcase. Seattle, WA.
15. "Understanding gestures in user interfaces." (2010). Invited speaker, WritersUA Conference on Software User Assistance. Seattle, WA.
16. "Making computers accessible with everyday input devices." (2009). Invited speaker, WritersUA Conference on Software User Assistance. Seattle, WA.
17. "Flipping the burden: Making computers accessible with everyday input devices." (2008). Keynote speaker, InfoCamp. Seattle, WA.

Academic Conference Presentations

1. "Ability-Based Design: Elevating Ability over Disability in Accessible Computing." (2017). SIGCHI Social Impact Award talk, ACM Conference on Human Factors in Computing Systems (CHI '17). Denver, CO.
2. "How technology research compares to doing a tech startup." (2014). Invited panelist, Human-Computer Interaction Institute 20th Anniversary Celebration, Carnegie Mellon University. Pittsburgh, PA.
3. "TapSongs: Tapping rhythm-based passwords on a single binary sensor." (2009). ACM Symposium on User Interface Software and Technology. Victoria, British Columbia.
4. "The Angle Mouse: Target-agnostic dynamic gain adjustment based on angular deviation." (2009). ACM Conference on Human Factors in Computing Systems. Boston, MA.
5. "User-defined gestures for surface computing." (2009). ACM Conference on Human Factors in Computing Systems. Boston, MA.
6. "An error model for pointing based on Fitts' law." (2008). ACM Conference on Human Factors in Computing Systems. Florence, Italy.
7. "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.
8. "Gestures without libraries, toolkits or training: A $\$1$ recognizer for user interface prototypes." (2007). ACM Symposium on User Interface Software and Technology. Newport, RI.
9. "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.
10. "From letters to words: Efficient stroke-based word completion for trackball text entry." (2006). ACM SIGACCESS Conference on Computers and Accessibility. Portland, OR.
11. "In-stroke word completion." (2006). ACM Symposium on User Interface Software and Technology. Montreux, Switzerland.
12. "Few-key text entry revisited: Mnemonic gestures on four keys." (2006). ACM Conference on Human Factors in Computing Systems. Montreal, Quebec.
13. "Trackball text entry for people with motor impairments." (2006). ACM Conference on Human Factors in Computing Systems. Montreal, Quebec.
14. "Maximizing the guessability of symbolic input." (2005). ACM Conference on Human Factors in Computing Systems. Portland, OR.

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

RESEARCH ADVISING

Ph.D. Advisees

1. Abdullah Ali, Ph.D. in Information Science, 2016 – present.
2. Tony Tung, Advisor, Ph.D. in Computer Science, 2016 – present.
3. Alex Mariakakis, Co-advisor with Shwetak N. Patel, Ph.D. in Computer Science, 2015 – present.
4. Martez Mott, Advisor, Ph.D. in Information Science, 2012 – present.
5. Katie O'Leary, Co-advisor with Wanda Pratt, Ph.D. in Information Science, 2012 – present.
6. Jessica J. Tran, Co-advisor with Eve Riskin and Richard E. Ladner, Ph.D. in Electrical Engineering, 2011-2014. *First position at Thomson Reuters.*
7. Jeff Huang, Co-advisor with Susan Dumais, Ph.D. in Information Science, 2011-2013. *First position as assistant professor at Brown University.*
8. Abigail Evans, Co-advisor with Katie Davis, Ph.D. in Information Science, 2010 – present.
9. Alex Jansen, Advisor, Ph.D. in Information Science, 2010-2013. *Departed with M.S. in Information Science.*
10. Shiri Azenkot, Co-advisor with Richard E. Ladner, Ph.D. in Computer Science, 2009-2014. *First position as assistant professor at Cornell Tech.*
11. Kristen Shinohara, Co-advisor with Wanda Pratt, Ph.D. in Information Science, 2008 – 2017. *First position as assistant professor at Rochester Institute of Technology.*
12. Parmit K. Chilana, Co-advisor with Andrew J. Ko, Ph.D. in Information Science, 2008-2013. *First position as assistant professor at University of Waterloo.*
13. 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.*
14. Susumu Harada, Co-advisor with James A. Landay, Ph.D. in Computer Science, 2006-2010. *First position at IBM Tokyo Research Lab.*
15. 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. Dun-Yu Hsiao, Ph.D. dissertation GSR, Electrical Engineering, 2016 – 2017. *First position at Zillow.com.*
2. Charlie Matlack, Ph.D. dissertation GSR, Electrical Engineering, 2013-2014. *First position at PotaVida.org.*
3. Nicola Dell, Ph.D. dissertation committee, Computer Science, 2012-2015. *First position as assistant professor at Cornell Tech.*
4. Hao Lü, Ph.D. dissertation committee, Computer Science, 2012-2014. *First position at Google.*
5. Morgan Dixon, Ph.D. dissertation committee, Computer Science, 2012-2014. *First position at Adobe.*
6. Suporn Pongnumkul, Ph.D. dissertation proposal GSR, Computer Science, 2011. *First position at National Electronics and Computer Technology Center, Thailand.*
7. Michael Toomim, Ph.D. dissertation proposal committee, Computer Science, 2010-2013. *Did not graduate.*
8. Jaehong Chon, Ph.D. dissertation GSR, Electrical Engineering, 2009-2011. *First position at Qualcomm.*
9. Chandrika Jayant, Ph.D. dissertation committee, Computer Science, 2009-2011. *First position at Nokia Research.*
10. Colin Birge, Ph.D. dissertation proposal committee, Human-Centered Design & Engineering, 2008-2013. *First position as business analyst at the University of British Columbia.*
11. Craig M. Prince, Ph.D. dissertation committee, Computer Science, 2007-2011. *First position at Google.*
12. Alan L. Liu, Ph.D. dissertation committee, Computer Science, 2007-2010. *First position at Kiha Software.*
13. Anna Cavender, Ph.D. dissertation committee, Computer Science, 2007-2010. *First position at Google.*
14. Neva Cherniavsky, Ph.D. dissertation committee, Computer Science, 2008-2009. *First position as postdoctoral fellow at INRIA, France.*
15. Jeffrey Bigham, Ph.D. dissertation committee, Computer Science, 2006-2009. *First position as assistant professor at University of Rochester.*
16. Jerrod A. Larson, Ph.D. dissertation GSR, Technical Communication, 2008-2009. *First position at Boeing.*

17. 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. Eugene M. Taranta II, Ph.D. dissertation committee, Computer Science, University of Central Florida, 2017 – present.
2. James Clawson, Ph.D. dissertation committee, Human-Centered Computing, Georgia Institute of Technology, 2008-2012. *First position as postdoctoral fellow at Georgia Institute of Technology.*

Other Research Advising

1. Dimitra Anastasiou, European Union Programme Horizon2020, Luxembourg Institute of Science and Technology, 2017 – present.
2. Chinmay Nirkhe, Research Assistant, Lakeside Upper School, 2012. *Enrolled as undergraduate, California Institute of Technology.*
3. Phillip Pasqual, Research Assistant, Informatics major, 2011-2013.
4. Katie O’Leary, Research Assistant, 2010-2012. *Enrolled in Information Science Ph.D. program, University of Washington.*
5. Nelson Nogales, Research Assistant, 2010-2011. *First position at ZAAZ.*
6. Tressa Johnson, Research Assistant, MLIS, 2009-2010.
7. Alex Jansen, NSF REU Scholar, Informatics major, 2009-2010. *Enrolled in Information Science Ph.D. program, University of Washington.*
8. Peter Kamb, NSF REU Scholar, Informatics major, 2009-2010. *First position at Swype.*
9. Eun Kyoung Choe, Ph.D. in Information Science, 2008-2009. *Switched advisors.*

SERVICE

University of Washington

Information School

Chair, Elected Faculty Council: 2017-2018.
 Chair-Elect, Elected Faculty Council: 2016-2017.
 Chair, “HCI for Social Good” Faculty Search Committee: 2016-2017.
 Faculty Champion, MSIM User Experience Subcommittee (3 years): 2013-2016.
 Chair, MSIM Information Architecture & Organization Subcommittee: 2013-2014.
 Member, Elected Faculty Council: 2011-2012.
 Member, Ph.D. Admissions Committee (5 years): 2006-2011.
 Member, Ph.D. Program Committee (4 years): 2007-2011.
 Member, HCI Jr. Faculty Search Committee: 2007-2008.
 Member, Recognition & Nomination Committee: 2006-2008.
 Member, Social Committee: 2006-2007.

Master of Human-Computer Interaction + Design (MHCI+D)

Chair, Master of HCI and Design: 2015-2016.
 Co-Chair, Master of HCI and Design (2 years): 2013-2015.
 Chair, Admissions Committee, Master of HCI and Design (4 years): 2014-2017.
 Member, Admissions Committee, Master of HCI and Design: 2013.
 Co-Founder, Master of HCI and Design (3 years): 2009-2012.

DUB Group (design: use: build:)

Co-Chair, DUB Interdisciplinary Faculty Committee (2 years): 2013-2015.
 Presenter, DUB State of the Union Address: 2012.
 Co-Chair, DUB Annual Retreat: 2012.
 Member, DUB Annual Retreat Planning Committee: 2008, 2011.
 Member, DUB CHI Reception Planning Committee: 2009, 2011.
 Invited Judge, Shobe Startup Prize: 2015.

CoMotion (tech transfer)

Invited Member, CoMotion Commercialization Committee for Software/IT: 2015-2016.

Carnegie Mellon University

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

Industry Boards

Board Observer, AnswerDash: 2016 – present.
 Chairman of the Board, AnswerDash: 2013-2015.
 Advisor, Seattle InfoCamp Advisory Board: 2008-2012.
 Advisor, Statewide Website Advisory Group (SWAG), Washington State Access to Justice Board: 2007-2009.

Public Service

Volunteer, Laurelhurst Elementary School Library: 2012-2013.

Service to My Academic Field

External Tenure and Promotion Cases

External cases reviewed: 2 (2016, 2017).

Journal Associate Editor

ACM Transactions on Computer-Human Interaction (ACM Press): 2012 – present.
 Foundations and Trends in Human-Computer Interaction (Now): 2012-2015.
 International Journal of Human-Computer Studies (Elsevier): 2010-2012.
 Advances in Human-Computer Interaction (Hindawi): 2007-2010.

Program Committees

Program Co-Chair, ACM Symposium on User Interface Software and Technology (UIST): 2016.
 Member, ACM Symposium on User Interface Software and Technology (UIST) (3 years): 2007, 2009, 2011.
 Member, ACM Conference on Human Factors in Computing Systems (CHI) (5 years): 2008-2009, 2011-2012, 2017.
 Member, ACM Conference on Computers and Accessibility (ASSETS) (3 years): 2008, 2010-2011.
 Member, International Conference on Pervasive Computing (Pervasive): 2007.
 Member, iConference: 2011.

Conference Committees

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

Doctoral Consortia

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

Grant Referee

National Science Foundation: Information and Intelligent Systems – Cyber-Human Systems: 2015.

Journal Peer-Reviewer

ACM Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT): 2017.
 ACM Transactions on Computer-Human Interaction (TOCHI): 2006, 2008-2009, 2012-2017.
 ACM Transactions on Accessible Computing (TACCESS): 2007-2008, 2011-2013.
 ACM Transactions on Mathematical Software (TOMS): 2014-2015.
 ACM Computing Surveys: 2008-2009.
 Human-Computer Interaction Journal: 2003-2006, 2009.
 IEEE Transactions on Human-Machine Systems (THMS): 2014-2015.
 International Journal of Human-Computer Studies (IJHCS): 2007-2008, 2010-2011.
 International Journal of Human-Computer Interaction (IJHCI): 2012.
 Foundations and Trends in Human Computer Interaction: 2011.
 Mathematics and Social Sciences: 2012.
 Ergonomics: 2012.
 Behaviour and Information Technology: 2009-2010.
 Interacting with Computers (IwC): 2009.
 RESNA Assistive Technology Journal: 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: 2008-2009.
 IEEE Computer: 2003.

Conference Peer-Reviewer

ACM Human Factors in Computing Systems (CHI) (15 consecutive years): 2003-2017.
ACM User Interface Software & Technology (UIST) (13 years): 2004-2012, 2014-2017.
ACM Computers and Accessibility (ASSETS) (3 years): 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 International 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 International Symposium on Wearable Computers (ISWC): 2005, 2008.
IFIP TC13 International Conference on Human-Computer Interaction (INTERACT): 2011.
International Conference on Pervasive Computing (Pervasive): 2007, 2012.
Graphics Interface (GI): 2006-2007, 2012.
British HCI Group Annual Conference: 2002.

Student Volunteer

ACM User Interface Software & Technology (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).