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# Jacob O. Wobbrock, Ph.D.

Professor, <u>The Information School</u>
By courtesy, <u>Computer Science & Engineering</u>
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# Curriculum Vitae

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# **BIOGRAPHY**

Jacob O. Wobbrock is a Professor of Information and, by courtesy, of Computer Science & Engineering at the University of Washington. His field is human-computer interaction (HCI) with a focus on mobile and accessible computing. He directs the ACE Lab; is an Associate Director and former founding Co-Director of the CREATE center; and is a co-founder of the multi-departmental DUB Group and the MHCI+D degree. He has co-authored over 200 papers and 19 patents, which have been cited over 22,500 times, and received 29 paper awards, including 7 best papers and 8 honorable mentions from ACM CHI, the flagship conference in HCI. For his contributions to accessible computing, he received the 2017 ACM SIGCHI Social Impact Award and the 2019 SIGACCESS ASSETS Paper Impact Award, a 10-year lasting impact award. He also received a 10-year lasting impact award from ACM ICMI 2022 for his work on gesture recognition. In 2018 and 2021, he was named the #1 Most Influential Scholar in HCI by the citation-ranking system AMiner, and he was #2 in 2020. In 2010, he received an NSF CAREER award. In 2019, he was inducted into the ACM SIGCHI Academy. In 2021, he was named an ACM Fellow "for contributions to human-computer interaction and accessible computing." He holds a B.S. in Symbolic Systems and an M.S. in Computer Science from Stanford University, and a Ph.D. in Human-Computer Interaction from Carnegie Mellon University.

# **FACULTY POSITIONS**

#### University of Washington · 2006 - present

- Professor, The Information School · 2017 present
   Adjunct Professor, Paul G. Allen School of Computer Science & Engineering · 2017 present
- Associate Professor, The Information School · 2011 2017
   Adjunct Associate Professor, Department of Computer Science & Engineering · 2011 2017
- 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.
 Dissertation: EdgeWrite: A Versatile Design for Text Entry and Control.
 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.
 Honors Thesis: The Law and Policy of Autonomous Software Agents.

# **PUBLICATIONS**

# **Keynotes and Award Talks**

- [K.4] Wobbrock, J.O. (2022). **Ability-based design: What role might A.I. play?** Michigan A.I. Symposium. Ann Arbor, MI (November 5, 2022). University of Michigan. *Opening Keynote Address*.
- [K.3] Wobbrock, J.O. (2020). Hypertext, social media, and civic engagement: How hypertext is ruining the world, and might just save it. Proceedings of the ACM Workshop on Human Factors in Hypertext (HUMAN '20). Virtual Event (December 4, 2020). New York: ACM Press. Article No. 2. Opening Keynote Address.
- [K.2] Wobbrock, J.O. (2019). **Situationally aware mobile devices for overcoming situational impairments.** Proceedings of the ACM Symposium on Engineering Interactive Computing Systems (EICS '19). Valencia, Spain (June 18-21, 2019). New York: ACM Press. Article No. 1. *Opening Keynote Address*.
- [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.

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# Journal Articles<sup>1</sup>

[J.27] Nolte, A., Wobbrock, J., Volkmann, T. and Jochems, N. (2022). Implementing ability-based design: A systematic approach to conceptual user modeling. ACM Transactions on Accessible Computing 15 (4). Article No. 34.

- [J.26] Hiniker, A. and Wobbrock, J.O. (2022). Reclaiming attention: Christianity and HCI. ACM Interactions 29 (4), pp. 40-44.
- [J.25] Vatavu, R.-D. and Wobbrock, J.O. (2022). Clarifying agreement calculations and analysis for end-user elicitation studies. ACM Transactions on Computer-Human Interaction 29 (1). Article No. 5.
- [J.24] Wobbrock, J.O., Hattatoglu, L., Hsu, A.K., Burger, M.A. and Magee, M.J. (2021). The Goldilocks zone: Young adults' credibility perceptions of online news articles based on visual appearance. New Review of Hypermedia and Multimedia 27 (1-2), pp. 51-96.
- [J.23] Ali, A.X., McAweeney, E. and Wobbrock, J.O. (2021). Anachronism by design: Understanding young adults' perceptions of computer iconography. International Journal of Human-Computer Studies 151. Article No. 102599.
- [J.22] Ali, A.X., Morris, M.R. and Wobbrock, J.O. (2021). **Distributed interaction design: Designing human-centered interactions in a time of social distancing.** ACM Interactions 28 (2), pp. 82-87.
- [J.21] Ross, A.S., Zhang, X., Fogarty, J. and Wobbrock, J.O. (2020). An epidemiology-inspired large-scale analysis of Android app accessibility. ACM Transactions on Accessible Computing 13 (1). Article No. 4.
- [J.20] Shinohara, K., Jacobo, N., Pratt, W. and Wobbrock, J.O. (2019). Design for social accessibility method cards: Engaging users and reflecting on social scenarios for accessible design. ACM Transactions on Accessible Computing 12 (4). Article No. 17.
- [J.19] Wobbrock, J.O., Gajos, K.Z., Kane, S.K. and Vanderheiden, G.C. (2018). **Ability-based design.** Communications of the ACM 61 (6), pp. 62-71.
- [J.18] Shinohara, K., Bennett, C.L., Pratt, W. and Wobbrock, J.O. (2018). **Tenets for social accessibility: Towards humanizing disabled people in design.** ACM Transactions on Accessible Computing 11 (1). Article No. 6.
- [J.17] Ruan, S., Wobbrock, J.O., Liou, K., Ng, A. and Landay, J.A. (2017). **Comparing speech and keyboard text entry for short messages in two languages on touchscreen phones.** Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies 1 (4). Article No. 159.
- [J.16] Wobbrock, J.O. and Kientz, J.A. (2016). **Research contributions in human-computer interaction.** ACM Interactions 23 (3), pp. 38-44.
- [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). 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). 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), 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), 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). 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), 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), 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), 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). 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), pp. 35-56.

<sup>&</sup>lt;sup>1</sup> ACM Interactions is not a scholarly journal, per se, but a semi-scholarly magazine.

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[J.4] Wobbrock, J.O. and Myers, B.A. (2006). Analyzing the input stream for character-level errors in unconstrained text entry evaluations. ACM Transactions on Computer-Human Interaction 13 (4), pp. 458-489.

- [J.3] Wobbrock, J.O., Aung, H.H., Myers, B.A. and LoPresti, E.F. (2005). Integrated text entry from power wheelchairs. Behaviour and Information Technology 24 (3), pp. 187-203.
- [J.2] Myers, B.A., Nichols, J., Wobbrock, J.O. and Miller, R.C. (2004). Taking handheld devices to the next level. IEEE Computer 36 (12), pp. 36-43.
- [J.1] Heckman, C.E. and Wobbrock, J.O. (1999). Liability for autonomous agent design. Journal of Autonomous Agents and Multi-Agent Systems 2 (1), pp. 87-103.

# Full Conference Papers<sup>2†</sup>

- [C.116] Zhang, Z.J., Kim, G.S.-H. and Wobbrock, J.O. (2023). **Developing and deploying a real-world solution for accessible slide reading and authoring for blind users.** Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '23). New York, New York (October 22-25, 2023). New York: ACM Press. Article No. 47. [30X]
- [C.115] Franz, R.L., Yu, J. and Wobbrock, J.O. (2023). Comparing locomotion techniques in virtual reality for people with upper-body motor impairments. Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '23). New York, New York (October 22-25, 2023). New York: ACM Press. Article No. 39. [30%]
- [C.114] Yamagami, M., Portnova-Fahreeva, A.A., Kong, J., Wobbrock, J.O. and Mankoff, J. (2023). How do people with limited movement personalize upper-body gestures? Considerations for the design of personalized and accessible gesture interfaces. Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '23). New York, New York (October 22-25, 2023). New York: ACM Press. Article No. 1. [30X]
- [C.113] Sharif, A., Zhang, A.M., Reinecke, K. and Wobbrock, J.O. (2023). **Understanding and improving drilled-down information extraction from online data visualizations for screen-reader users.** Proceedings of the International Web for All Conference (W4A '23). Austin, Texas (April 30-May 1, 2023). New York: ACM Press, pp. 18-31. **Best Technical Paper**. [34X]
- [C.112] Zhang, Z.J. and Wobbrock, J.O. (2023). A11yBoard: Making digital artboards accessible to blind and low-vision users. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '23). Hamburg, Germany (April 23-28, 2023). New York: ACM Press. Article No. 55. [28%]
- [C.111] Kong, J., Zhong, M., Fogarty, J. and Wobbrock, J.O. (2022). Quantifying touch: New metrics for characterizing what happens during a touch. Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '22). Athens, Greece (October 23-26, 2022). New York: ACM Press. Article No. 33. \*\*Best \*\*Paper \*\*Nominee\*\*. [268]
- [C.110] Sharif, A., Wang, O.H., Muongchan, A.T., Reinecke, K. and Wobbrock, J.O. (2022). **VoxLens: Making online data visualizations** accessible with an interactive JavaScript plug-in. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '22). New Orleans, Louisiana (April 30-May 5, 2022). New York: ACM Press. Article No. 478. [25%]
- [C.109] Zhang, M.R., Zhai, S. and Wobbrock, J.O. (2022). TypeAnywhere: A QWERTY-based text entry solution for ubiquitous computing. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '22). New Orleans, Louisiana (April 30-May 5, 2022). New York: ACM Press. Article No. 339. [25]
- [C.108] Fok, R., Zhong, M., Ross, A.S., Fogarty, J. and Wobbrock, J.O. (2022). A large-scale longitudinal analysis of missing label accessibility failures in Android apps. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '22). New Orleans, Louisiana (April 30-May 5, 2022). New York: ACM Press. Article No. 461. [25%]
- [C.107] Zhang, M.R., Zhong, M. and Wobbrock, J.O. (2022). Ga11y: An automated GIF annotation system for visually impaired users. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '22). New Orleans, Louisiana (April 30-May 5, 2022). New York: ACM Press. Article No. 197. [25%]
- [C.106] Sharif, A., Chintalapati, S.S., Wobbrock, J.O. and Reinecke, K. (2021). **Understanding screen-reader users' experiences with online data visualizations.** Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '21). Virtual Event (October 18-22, 2021). New York: ACM Press. Article No. 14. [29%]
- [C.105] Elkin, L.A., Kay, M., Higgins, J.J. and Wobbrock, J.O. (2021). An aligned rank transform procedure for multifactor contrast tests. Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '21). Virtual Event (October 10-14, 2021). New York: ACM Press, pp. 754-768. [26%]

<sup>&</sup>lt;sup>2</sup> Unlike in most 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 <a href="http://dl.acm.org/citation.cfm?id=1743546.1743569">http://dl.acm.org/citation.cfm?id=1743546.1743569</a>.

<sup>†</sup> Acceptance rates appear in superscript brackets when available.

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[C.104] Schaadhardt, A., Hiniker, A. and Wobbrock, J.O. (2021). **Understanding blind screen-reader users' experiences of digital artboards.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '21). Yokohama, Japan (May 8-13, 2021). New York: ACM Press. Article No. 270. [268]

- [C.103] Ali, A.X., Morris, M.R. and Wobbrock, J.O. (2021). "I am Iron Man": Priming improves the learnability and memorability of userelicited gestures. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '21). Yokohama, Japan (May 8-13, 2021). New York: ACM Press. Article No. 359. [26%]
- [C.102] Zhang, M.R., Wang, R., Xu, X., Li, Q., Sharif, A. and Wobbrock, J.O. (2021). Voicemoji: Emoji entry using voice for visually impaired people. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '21). Yokohama, Japan (May 8-13, 2021). New York: ACM Press. Article No. 37. [26%]
- [C.101] Zhang, M.R., Mariakakis, A., Burke, J. and Wobbrock, J.O. (2021). A comparative study of lexical and semantic emoji suggestion systems. Proceedings of iConference 2021. Beijing, China (March 17-31, 2021). Lecture Notes in Computer Science, vol. 12645. Switzerland: Springer, pp. 229-247. [31X]
- [C.100] Sharif, A., Pao, V., Reinecke, K. and Wobbrock, J.O. (2020). The reliability of Fitts's law as a movement model for people with and without limited fine motor function. Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '20). Athens, Greece (October 26-28, 2020). New York: ACM Press. Article No. 16. [28%]
- [C.99] Cui, W., Zhu, S., Zhang, M.R., Schwartz, A., Wobbrock, J.O. and Bi, X. (2020). JustCorrect: Intelligent post hoc text correction techniques on smartphones. Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '20). Minneapolis, Minnesota (October 20-23, 2020). New York: ACM Press, pp. 487-499. [22X]
- [C.98] Villarreal-Narvaez, S., Vanderdonckt, J., Vatavu, R.-D. and Wobbrock, J.O. (2020). A systematic review of gesture elicitation studies: What can we learn from 216 studies? Proceedings of the ACM Conference on Designing Interactive Systems (DIS '20). Eindhoven, Netherlands (July 6-10, 2020). New York: ACM Press, 855-872. [24%]
- [C.97] Franz, R.L., Wobbrock, J.O., Cheng, Y. and Findlater, L. (2019). Perception and adoption of mobile accessibility features by older adults experiencing ability changes. Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '19). Pittsburgh, Pennsylvania (October 28-30, 2019). New York: ACM Press, pp. 267-278. [26%]
- [C.96] Chaudhuri, B., Perlmutter, L., Petelka, J., Garrison, P., Fogarty, J., Wobbrock, J.O. and Ladner, R.E. (2019). GestureCalc: An eyesfree calculator for touch screens. Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '19). Pittsburgh, Pennsylvania (October 28-30, 2019). New York: ACM Press, pp. 112-123. [268]
- [C.95] Zhang, M.R., Wen, H. and Wobbrock, J.O. (2019). **Type, then correct: Intelligent text correction techniques for mobile text entry using neural networks.** Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '19). New Orleans, Louisiana (October 20-23, 2019). New York: ACM Press, pp. 843-855. [24X]
- [C.94] Zhang, M.R. and Wobbrock, J.O. (2019). Beyond the input stream: Making text entry evaluations more flexible with transcription sequences. Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '19). New Orleans, Louisiana (October 20-23, 2019). New York: ACM Press, pp. 831-842. [24%]
- [C.93] Wobbrock, J.O., Hsu, A.K., Burger, M.A. and Magee, M.J. (2019). Isolating the effects of web page visual appearance on the perceived credibility of online news among college students. Proceedings of the ACM Conference on Hypertext and Social Media (HT '19). Hof, Germany (September 17-20, 2019). New York: ACM Press, pp. 191-200. *Douglas Engelbart Award for Best Paper*. [29X]
- [C.92] Evans, A.C., Davis, K. and Wobbrock, J.O. (2019). **Adaptive support for collaboration on tabletop computers.** Proceedings of the International Conference on Computer Supported Collaborative Learning (CSCL '19), vol. 1. Lyon, France (June 17-21, 2019). International Society of the Learning Sciences, pp. 176-183.
- [C.91] Zhang, M.R., Zhai, S. and Wobbrock, J.O. (2019). **Text entry throughput: Towards unifying speed and accuracy in a single performance metric.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '19). Glasgow, Scotland (May 4-9, 2019). New York: ACM Press. Paper No. 636. [24%]
- [C.90] Mott, M.E. and Wobbrock, J.O. (2019). Cluster Touch: Improving smartphone touch accuracy for people with motor and situational impairments. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '19). Glasgow, Scotland (May 4-9, 2019). New York: ACM Press. Paper No. 27. [24%]
- [C.89] Ali, A.X., Morris, M.R. and Wobbrock, J.O. (2019). Crowdlicit: A system for conducting distributed end-user elicitation and identification studies. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '19). Glasgow, Scotland (May 4-9, 2019). New York: ACM Press. Paper No. 255. [24%]
- [C.88] Ross, A.S., Zhang, X., Fogarty, J. and Wobbrock, J.O. (2018). Examining image-based button labeling for accessibility in Android apps through large-scale analysis. Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '18). Galway, Ireland (October 22-24, 2018). New York: ACM Press, pp. 119-130. Best Paper Nominee. [26%]
- [C.87] Shinohara, K., Wobbrock, J.O. and Pratt, W. (2018). Incorporating social factors in accessible design. Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '18). Galway, Ireland (October 22-24, 2018). New York: ACM Press, pp. 149-160. [26%]

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[C.86] Tung, Y.-C., Goel, M., Zinda, I. and Wobbrock, J.O. (2018). RainCheck: Overcoming capacitive interference caused by rainwater on smartphones. Proceedings of the ACM International Conference on Multimodal Interaction (ICMI '18). Boulder, Colorado (October 16-20, 2018). New York: ACM Press, pp. 464-471. [46%]

- [C.85] Ali, A.X., Morris, M.R. and Wobbrock, J.O. (2018). Crowdsourcing similarity judgments for agreement analysis in end-user elicitation studies. Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '18). Berlin, Germany (October 14-17, 2018). New York: ACM Press, pp. 177-188. [21%]
- Vatavu, R.-D., Anthony, L. and Wobbrock, J.O. (2018). \$Q: A super-quick, articulation-invariant stroke-gesture recognizer for low-resource devices. Proceedings of the ACM Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI '18). Barcelona, Spain (September 3-6, 2018). New York: ACM Press. Article No. 23. \*Honorable Mention Paper\*. [23\*]
- [C.83] Mariakakis, A., Parsi, S., Patel, S.N. and Wobbrock, J.O. (2018). **Drunk user interfaces: Determining blood alcohol level through everyday smartphone tasks.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI'18). Montreal, Quebec (April 21-26, 2018). New York: ACM Press. Paper No. 234. [25x]
- [C.82] O'Leary, K., Schueller, S., Wobbrock, J.O. and Pratt, W. (2018). "Suddenly, we got to become therapists for each other":

  Designing peer support chats for mental health. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '18). Montreal, Quebec (April 21-26, 2018). New York: ACM Press. Paper No. 331. \*\*Honorable Mention \*\*Paper\*\*. [25\*]
- [C.81] Ross, A.S., Zhang, X., Fogarty, J. and Wobbrock, J.O. (2017). Epidemiology as a framework for large-scale mobile application accessibility assessment. Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '17). Baltimore, Maryland (October 30 November 1, 2017). New York: ACM Press, pp. 2-11. Best Paper Nominee. [26K]
- [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), vol. 1. Philadelphia, Pennsylvania (June 18-22, 2017). International Society of the Learning Sciences, pp. 239-246.
- [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%]
- [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 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, England (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\*\*. [238]
- [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. [23X]
- [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<sup>8</sup>]
- [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%]

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[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 Conference on Computers and Accessibility (ASSETS '14). Rochester, New York (October 20-22, 2014). New York: ACM Press, pp. 177-184. [268]
- [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<sup>K</sup>]
- [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. [234]
- [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 Conference on Computers and Accessibility (ASSETS '13). Bellevue, Washington (October 21-23, 2013). New York: ACM Press. Article No. 22. [291]
- [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 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. [381]
- [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. [201]
- [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. [20X]
- 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; ICMI 2022 Ten-Year Technical Impact Award*. [218]
- [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 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. [23X]

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[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. [23X]
- [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 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 nonvisual 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, 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*. [268]
- [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\*\*. [268]
- [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 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\*\*. [29X]
- [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%]

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[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 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. [198]
- [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. [24K]
- [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<sup>x</sup>]
- [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 Conference on Computers and Accessibility (ASSETS '08). Halifax, Nova Scotia (October 13-15, 2008). New York: ACM Press, pp. 73-80. 2019 SIGACCESS ASSETS Paper Impact Award. [57%]
- [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, 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. [40X]
- [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 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 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 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 Conference on Computers and Accessibility (ASSETS '07). Tempe, Arizona (October 15-17, 2007). New York: ACM Press, pp. 51-58. [31X]

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[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 special reprise presentation at SIGGRAPH* 2008. [17X]

- [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: Thumbbased 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. [228]
- [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 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<sup>§</sup>]
- [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 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 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. [328]

# Short Conference Papers<sup>3</sup>

- [N.20] Zhang, M.R. and Wobbrock, J.O. (2020). **Gedit: Keyboard gestures for mobile text editing.** Proceedings of Graphics Interface (GI '20). Toronto, Ontario (May 28-29, 2020). Toronto, Ontario: Canadian Information Processing Society, pp. 470-473. [51%]
- [N.19] Franz, R.L., Findlater, L., Neves, B.B. and Wobbrock, J.O. (2019). **Gender and help seeking by older adults when learning new technologies.** Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '19). Pittsburgh, Pennsylvania (October 28-30, 2019). New York: ACM Press, pp. 136-142. [26X]
- [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), vol. 2. Boulder, Colorado (June 23-27, 2014). International Society of the Learning Sciences, pp. 1157-1161. [328]

<sup>&</sup>lt;sup>3</sup> Short conference papers are just as rigorously peer-reviewed as full conference papers, and often have even lower acceptance rates. CHI and UIST Notes, especially, are considered top-tier publications in Human-Computer Interaction.

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[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. [30X]

- [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. [268]
- [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. [12X]
- [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<sup>8</sup>]
- [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%]
- [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. [23X]
- [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. [238]
- [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. [22K]

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# **Conference Papers with Posters/Demos**

[P.21] Sharif, A., Zhang, A.M., Reinecke, K. and Wobbrock, J.O. (2023). **Understanding and improving drilled-down information extraction from online data visualizations for screen-reader users.** Extended Abstracts of the International Web for All Conference (W4A '23). Austin, Texas (April 30-May 1, 2023). New York: ACM Press, pp. 168-170.

- [P.20] Zhang, Z. and Wobbrock, J.O. (2022). A11yBoard: Using multimodal input and output to make digital artboards accessible to blind users. Adjunct Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '22). Bend, Oregon (October 29-November 2, 2022). New York: ACM Press. Article No. 9. Best Poster Honorable Mention. [61%]
- [P.19] Sharif, A., Zhang, A.M., Shih, A., Wobbrock, J.O. and Reinecke, K. (2022). **Understanding and improving information extraction from online geospatial data visualizations for screen-reader users.** Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '22). Athens, Greece (October 23-26, 2022). New York: ACM Press. Article No. 61. [59X]
- [P.18] Kong, J., Zhong, M., Fogarty, J. and Wobbrock, J.O. (2021). New metrics for understanding touch by people with and without limited fine motor function. Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '21). Virtual Event (October 18-22, 2021). New York: ACM Press. Article No. 80. [62%]
- [P.17] Franz, R.L., Findlater, L. and Wobbrock, J.O. (2019). Just ask me: Comparing older and younger individuals' knowledge of their optimal touchscreen target sizes. Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '19). Pittsburgh, Pennsylvania (October 28-30, 2019). New York: ACM Press, pp. 591-593. [58%]
- [P.16] Perlmutter, L., Chaudhuri, B., Petelka, J., Garrison, P., Fogarty, J., Wobbrock, J.O. and Ladner, R.E. (2019). Demonstration of GestureCalc: An eyes-free calculator for touch screens. Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '19). Pittsburgh, Pennsylvania (October 28-30, 2019). New York: ACM Press, pp. 667-669. [58X]
- [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). Poster No. P3.41.
- [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 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 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. [45X]
- [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. [34%]
- [P.7] Kane, S.K. and Wobbrock, J.O. (2007). Automatically correcting typing errors for people with motor impairments. Adjunct Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '07). 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. [50K]
- [P.5] Wobbrock, J.O. and Myers, B.A. (2005). **Gestural text entry on multiple devices.** Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '05). Baltimore, Maryland (October 9-12, 2005). New York: ACM Press, pp. 184-185. [38X]
- [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.

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[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.21] Hiniker, A. and Wobbrock, J.O. (2022). Reclaiming attention: A Christian perspective prioritizing relationships in the design of technology. Workshop on "Integrating Religion, Faith, and Spirituality in HCI." ACM Conference on Human Factors in Computing Systems (CHI '22). New Orleans, Louisiana (April 30-May 5, 2022).
- [W.20] Tigwell, G., Sarsenbayeva, Z., Gorman, B., Flatla, D., Goncalves, J., Yesilada, Y. and Wobbrock, J. (2020). Future directions for situationally induced impairments and disabilities research. ACM Interactions Blog. October 6, 2020.
- [W.19] Tigwell, G.W., Sarsenbayeva, Z., Gorman, B.M., Flatla, D.R., Goncalves, J., Yesilada, Y. and Wobbrock, J.O. (2019). Addressing the challenges of situationally-induced impairments and disabilities in mobile interaction. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '19). Glasgow, Scotland (May 4-9, 2019). New York: ACM Press. Paper No. W30. [31%]
- [W.18] Franz, R., Findlater, L. and Wobbrock, J.O. (2018). Lost in transition: The importance of conceptualizing aging as a process in accessibility research. Workshop on "Designing Interactions for the Ageing Populations." ACM Conference on Human Factors in Computing Systems (CHI '18). Montreal, Quebec (April 21-26, 2018), pp. 53-58.
- [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).

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[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. [628]
- [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. 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.9] Zhang, M.R., Wen, H., Cui, W., Zhu, S., Schwartz, H.A., Bi, X. and Wobbrock, J.O. (2021). Al-driven intelligent text correction techniques for mobile text entry. Chapter 5 in Y. Li & O. Hilliges (eds.), Artificial Intelligence for Human Computer Interaction: A Modern Approach. Switzerland: Springer, pp. 131-168.
- [B.8] Ko, A.J., Wobbrock, J.O. and Whitmire, E. (2020). User Interface Software and Technology. E-book, 368 pages.
- [B.7] Wobbrock, J.O. (2019). **Situationally-induced impairments and disabilities.** Chapter 5 in Y. Yesilada & S. Harper (eds.), *Web Accessibility:* A Foundation for Research (2nd ed.). London, England: Springer, pp. 59-92.
- [B.6] Franz, R.L., Neves, B.B., Epp, C.D., Baecker, R. and Wobbrock, J.O. (2019). Why and how think-alouds with older adults fail:

  Recommendations from a study and expert interviews. In S. Sayago (ed.), Perspectives on Human-Computer Interaction
  Research with Older People. Switzerland: Springer, pp. 217-235.
- [B.5] Wobbrock, J.O. and Kay, M. (2016). **Nonparametric statistics in human-computer interaction.** Chapter 7 in J. Robertson & M.C. Kaptein (eds.), *Modern Statistical Methods for HCl*. 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 & 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 & 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**

- [IP.19] Goel, M., Wobbrock, J.O., Patel, S.N. and Findlater, L. (2020). **Use of hand posture to improve text entry.** U.S. Patent #10,540,083. Issued January 21, 2020. Priority date December 11, 2012.
- [IP.18] Chilana, P.K., Ko, A.J. and Wobbrock, J.O. (2017). Systems and methods for selection-based contextual help retrieval. U.S. Patent #9,811,583. Issued November 7, 2017. Priority date June 17, 2011.
- [IP.17] 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. (2017). System and methods for creating and authorizing internet content using application media packages. U.S. Patent #9,723,108. Issued August 1, 2017. Priority date April 26, 1999.
- [IP.16] Kembel, J.A., Kembel, G.A., Kim, D.S., Russell, J., Wobbrock, J., Kembel, G.S., Kembel, J.L. and Gabbay, L.D. (2016). **Methods of obtaining application media packages.** U.S. Patent #9,438,467. Issued September 6, 2016. Priority date April 26, 1999.

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[IP.15] 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. (2016). Apparatus and method for dynamically coordinating the delivery of computer readable media. U.S. Patent #9,426,255. Issued August 23, 2016. Priority date April 26, 1999.

- [IP.14] Kembel, J.A., Kembel, G.A., Kim, D.S., Russell, J., Wobbrock, J., Kembel, G.S., Kembel, J.L. and Gabbay, L.D. (2016). Accessing and displaying network content. U.S. Patent #9,369,545. Issued June 14, 2016. Priority date April 26, 1999.
- [IP.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. Priority date April 26, 1999.
- [IP.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. Priority date April 26, 1999.
- [IP.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. Priority date April 26, 1999.
- [IP.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. Priority date April 26, 1999.
- [IP.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. Priority date April 26, 1999.
- [IP.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. Priority date April 26, 1999.
- [IP.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. Priority date April 26, 1999.
- [IP.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. Priority date April 26, 1999.
- [IP.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. Priority date April 26, 1999.
- [IP.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. Priority date April 4, 2003.
- [IP.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. Priority date April 26, 1999.
- [IP.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. Priority date June 28, 2004.
- [IP.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. Priority date April 26, 1999.

# **Selected Popular Press**

- [R.7] Wobbrock, J.O. (2024). **Mac at 40: User experience was the innovation that launched a technology revolution.** The Conversation, January 19, 2024. (Also translated into Spanish, Portuguese, and French editions.) <u>Link</u>
- [R.6] Wobbrock, J. (2016). Why every innovation can't be the next iPhone. Real Clear Technology, April 27, 2016. Link
- [R.5] Wobbrock, J. (2014). 5 lessons that business leaders could learn from academics. Entrepreneur Magazine, November 7, 2014. Link
- [R.4] Wobbrock, J. (2014). Changing consumer behaviors make self-service growth inevitable. destination CRM.com, September 26, 2014. Link
- [R.3] Wobbrock, J. (2014). How millennials require us to design the technologies of tomorrow. WIRED, September 5, 2014. Link
- [R.2] Wobbrock, J. (2014). Ivory tower research and startup innovation are two sides of a coin. Entrepreneur Magazine, July 19, 2014. Link

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[R.1] Wobbrock, J. (2014). **Power to the people: How to make self-service a priority for your website.** Website Magazine, June 19, 2014. <u>Link</u>

# **Other Publications & Reports**

- [0.7] Mankoff, J. and Wobbrock, J.O. (2022). Expanding the pipeline: The Center for Research and Education on Accessible Technology and Experiences (CREATE). Computing Research News 34 (3), pp. 17-19.
- [O.6] Ladner, R.E., Lazar, J., Lewis, C. and Wobbrock, J.O. (2021). Accessibility research centers: What they are and how to become involved. Panel at the CMD-IT/ACM Richard Tapia Celebration of Diversity in Computing Conference (TAPIA '21). Virtual Event (September 14-18, 2021).
- [O.5] Mankoff, J. and Wobbrock, J.O. (2021). The center for research and education on accessible technology and experiences (CREATE). The Newsletter of ACM SIGACCESS (no. 130, June 2021). New York: ACM Press. Link
- [O.4] Tung, Y.-C., DiVerdi, S., Hertzmann, A. and Wobbrock, J.O. (2018). Comparing spatial interaction modalities for 2D-widgets in productivity applications in virtual reality. Technical Report UW-CSE-18-10-01. Seattle, WA: University of Washington, 12 pages.
- [O.3] Kane, S.K., Shinohara, K.S. and Wobbrock, J.O. (2015). **OneView: Enabling collaboration between blind and sighted students.** Computer Science Technical Report 1037. Boulder, CO: University of Colorado Boulder, 6 pages.
- [0.2] Wobbrock, J.O. (2006). EdgeWrite: A versatile design for text entry and control. Technical Report CMU-HCII-06-104.

  Pittsburgh, PA: Carnegie Mellon University, 310 pages. School of Computer Science Distinguished Dissertation Award.
- [O.1] Wobbrock, J.O. (1998). **The law and policy of autonomous software agents.** Stanford, CA: Stanford University, 172 pages. Robert M. Golden Medal for Excellence in Humanities and Creative Arts.

#### Paper Awards

# Best Technical Paper, International Web for All Conference (W4A '23)

Sharif, Zhang, Reinecke & Wobbrock: "Understanding and improving drilled-down information extraction from online data visualizations for screen-reader users." (Awarded to 1 of 32 submissions.)

#### Ten-Year Technical Impact Award, ACM International Conference on Multimodal Interaction (ICMI '22)

Vatavu, Anthony & Wobbrock: "Gestures as point clouds: A \$P recognizer for user interface prototypes," published at ICMI 2012. (The award is presented to a group of scientists for contributing a seminal paper published in ICMI with the largest influence in an area within multimodal interaction, interfaces, and systems, and published 10 years or more in the past.)

# SIGACCESS ASSETS Paper Impact Award, ACM Conference on Computers and Accessibility (ASSETS '19)

Kane, Bigham & Wobbrock: "Slide Rule: Making mobile touch screens accessible to blind people using multi-touch interaction techniques," published at ASSETS 2008. (Awarded every other year to one paper at least 10 years old that has made a lasting impact on computing and information technology addressing the needs of people with disabilities.)

# Pouglas Engelbart Award for Best Paper, ACM Conference on Hypertext and Social Media (HT '19)

Wobbrock, Hsu, Burger & Magee: "Isolating the effects of web page visual appearance on the perceived credibility of online news among college students." (Awarded to 1 of 102 submissions.)

#### 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.)

# P 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 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.)

# P 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.)

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### 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.)

# 賽 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 Human-Computer Interaction 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.)

# P 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.)

# P 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 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.)

# 8 Best Poster Honorable Mention, ACM Symposium on User Interface Software and Technology (UIST '22)

Zhang & Wobbrock: "A11yBoard: Using multimodal input and output to make digital artboards accessible to blind users." (Awarded to 3 of 54 submissions.)

### Best Paper Nominee, ACM Conference on Computers and Accessibility (ASSETS '22)

Kong, Zhong, Fogarty & Wobbrock: "Quantifying touch: New metrics for characterizing what happens during a touch." (Awarded to 8 of 132 submissions.)

#### 8 Best Paper Nominee, ACM Conference on Computers and Accessibility (ASSETS '18)

Ross, Zhang, Fogarty & Wobbrock: "Examining image-based button labeling for accessibility in Android apps through large-scale analysis." (Awarded to 5 of 108 submissions.)

# 8 Honorable Mention Paper, ACM Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI '18)

Vatavu, Anthony & Wobbrock: "\$Q: A super-quick, articulation-invariant stroke-gesture recognizer for low-resource devices." (Awarded to 3 of 213 submissions.)

# Honorable Mention Paper, ACM Conference on Human Factors in Computing Systems (CHI '18)

O'Leary, Schueller, Wobbrock & Pratt: "'Suddenly, we got to become therapists for each other': Designing peer support chats for mental health." (Awarded to 5% of ~2500 submissions.)

# Best Paper Nominee, ACM Conference on Computers and Accessibility (ASSETS '17)

Ross, Zhang, Fogarty & Wobbrock: "Epidemiology as a framework for large-scale mobile application accessibility assessment." (Awarded to 5% of 126 submissions.)

# 8 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.)

# 8 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.)

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### 8 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.)

# 8 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.)

#### 8 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 Fellow (2021)

Named a Fellow of the Association of Computing Machinery "for contributions to human-computer interaction and accessible computing." The ACM Fellow honor recognizes the top 1% of ACM's worldwide membership for significant contributions to computer science. Link

# AMiner #1 and #2 Most Influential Scholar in Human-Computer Interaction Awards (2018-2021)

Placed #1 in 2018, #2 in 2020, and #1 in 2021 by the citation-ranking system AMiner, which says, "The Most Influential Scholars in Human-Computer Interaction are the top 10 most-cited scholars from the top venues of this field over the past 10 years." Link

#### ACM CHI Academy (2019)

Major international award for substantial contributions to the field of human-computer interaction. Inducted at ACM CHI 2019 in Glasgow, Scotland on May 5, 2019. Link

#### ACM Senior Member (2019)

Admitted as a Senior Member of the Association of Computing Machinery. Admissions require peer nominations and admission by a selection committee. Link

#### PROF Award Nominee (2017)

University of Washington Information School Pedagogical Recognition for Our Faculty (PROF) teaching award nominee.

# ACM SIGCHI Social Impact Award (2017)

Major international award for human-computer interaction research applied to pressing social needs. Awarded at ACM CHI 2017 in Denver, Colorado on May 7, 2017. Link

# 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.

### National Science Foundation CAREER Award (2010)

For submission entitled, "Advancing accessible computing with tools for ability-based design." Award is in the form of a federal research grant for \$509,359.

# 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 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.

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

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 (\$7,619,442)

- Fogarty, J., Wobbrock, J.O., Caspi, A. and Ladner, R.E. (2017-2022). "CHS-MEDIUM: Improving the accessibility of mobile applications by enabling third-party assessment, repair, and enhancement." National Science Foundation [IIS-1702751]: \$1,198,547. Link
- NSF Ladner, R.E., Ko, A.J., Wobbrock, J.O. and Burgstahler, S. (2015-2020). "BPC-AE: AccessComputing Third extension."

  National Science Foundation [CNS-1539179]: \$4,257,252. Link
- 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. Link
- NSF Wobbrock, J.O. and Shinohara, K. (2012-2013). "DOCTORAL DISSERTATION RESEARCH: Developing Design for Social Acceptance: A new methodology incorporating social acceptability in the design of assistive devices." National Science Foundation [SES-1230435]: \$15,000. Link
- NSF Wobbrock, J.O. (2010-2016). "CAREER: Advancing accessible computing with tools for ability-based design." National Science Foundation [IIS-0952786]: \$509,359. Link
- NSF Levy, D.M. and Wobbrock, J.O. (2009-2010). "EAGER: An empirical exploration of contemplative multitasking." National Science Foundation [IIS-0942646]: \$143,872. Link
- 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]: \$464,905. <u>Link</u>
- NSF Riskin, E.A., Wobbrock, J.O. and Ladner, R.E. (2008-2012). "HCC-SMALL: MobileASL: Providing mobile video communications to the Deaf community through user-centered design and deployment." National Science Foundation [IIS-0811884]: \$530,785.

  Link

# Industry Research Gifts (\$3,595,107)

- Wobbrock, J.O., Findlater, L. and Franz, R. (2020). "Recommending VR interaction techniques for users with limited mobility."
  Request for Proposals on Social Experiences in VR Environments. Facebook Reality Labs: \$75,000. Link
- GOOGLE Wobbrock, J.O. (2020). "The ability-based design mobile toolkit: Enabling accessible mobile interactions through advanced sensing and modeling." Google Award for Inclusion Research: \$60,000. [c16X] Link
- Mankoff, J., Wobbrock, J.O., Ladner, R.E. and Caspi, A.C. (2020). Inaugural support for the Center for Research and Education on Accessible Technology and Experiences (CREATE). Microsoft: \$3,000,000.
- MANI Wobbrock, J.O. (2018). Support for the Mobile + Accessible Design Lab. Mani Charitable Foundation and Microsoft: \$10,000.
- MSR Wobbrock, J.O. (2017-2019). Support for Crowdlicit project. Microsoft Research: \$18,000.
- ADOBE Wobbrock, J.O. (2017). Support for the Mobile + Accessible Design Lab. Adobe Systems: \$10,000.
- MANI Wobbrock, J.O. (2017). Support for the Mobile + Accessible Design Lab. Mani Charitable Foundation: \$26,000.
- 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. [16%]
- 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.

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MSR Wobbrock, J.O. (2010-2012). Support for the AIM Research Group. Microsoft Research: \$50,000.

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.

wsr 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.

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 of Washington Research Funding (\$221,489)

CREATE Wobbrock, J.O. (2024). "Advancing creative expression with digital artboards for blind users through human-Al interaction." University of Washington Center for Research and Education on Accessible Technology and Experiences (CREATE): \$39,989.

CREATE Wobbrock, J.O. (2020-2023). Support for accessibility research. University of Washington Center for Research and Education on Accessible Technology and Experiences (CREATE): \$120,000.

Wobbrock, J.O. (2020). "First impressions of news-like articles." University of Washington Center for an Informed Public: \$3500.

изсноо. 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.

сомотюм Wobbrock, J.O. (2014). Presidential Entrepreneurial Faculty Fellow. University of Washington CoMotion: \$10,000.

Landay, J.A. and Wobbrock, J.O. (2008-2009). "Beyond speech recognition: Harnessing the power of voice for effective control of computer interfaces." University of Washington Royalty Research Fund: \$38,000.

#### Commercialization Financing (\$6,965,000)

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.

svb 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.

W FUND Wobbrock, J.O. and Ko, A.J. (2013). Seed financing for AnswerDash (formerly Qazzow). W Fund: \$500,000.

c4c 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. Dan Friedell. "Apple's computer launch leads to study of user experience." Voice of America, January 27, 2024.
- 2. Rob Breakenridge. Radio interview about the 40th anniversary of the Apple Macintosh. *The Shaye Ganam Show* airing on 630 CHED in Edmonton, Alberta and on QR Calgary (AM 770 and FM 107.3) in Calgary, Alberta. January 22, 2024.
- 3. Stefan Milne. "A Google Slides extension can make presentation software more accessible for blind users." University of Washington News, October 30, 2023.
- Staff. "A11yBoard seeks to make digital artboards accessible to blind and low-vision users." UW Center for Research and Education
  on Accessible Technology and Experiences News, April 25, 2023.
- 5. Alice Skipton. "Rethinking disability and advancing access." UW College of Engineering News, February 21, 2023.
- 6. Doug Parry. "iSchool's Wobbrock honored for lasting impact." UW Information School News, December 6, 2022.
- 7. John Delaney. "ACM Member News: Promoting accessibility through ability-based design." Communications of the ACM 65 (12), December 2022, p. 13.
- 8. Jim Davis. "Class puts people first, technology second." UW Information School News, September 12, 2022.
- 9. Imma Perfetto. "Data visualisations made more accessible to screen reader users." Cosmos, June 6, 2022.
- 10. Adam Zewe. "Making data visualization more accessible for blind and low-vision individuals." M.I.T. News, June 2, 2022.
- 11. Sarah McQuate. "VoxLens: Adding one line of code can make some interactive visualizations accessible to screen-reader users." University of Washington News, June 1, 2022.
- 12. Doug Parry. "Your fingers are the keyboard': Ph.D. candidate builds innovative tool." UW Information School News, May 6, 2022.
- 13. Maggie Foote. "iSchool researchers honored for excellence at CHI 2022." UW Information School News, April 29, 2022.
- 14. Staff. "CREATE Co-Director Jacob O. Wobbrock named ACM Fellow." UW Center for Research and Education on Accessible Technology and Experiences News, January 27, 2022.

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- 15. Staff. "Three iSchool researchers honored for groundbreaking work." UW Information School News, January 19, 2022.
- 16. Jim Ormond. "ACM names 71 Fellows for computing advances that are driving innovation." Association of Computing Machinery, January 19, 2022.
- 17. Staff. "Faculty/staff honors: Energy-efficient computing, Cottrell Scholar, Google Inclusion Awards." University of Washington News, March 24, 2021.
- 18. Sara Hamidi. "UW iSchool professor begins work on an ability-based design toolkit for more accessible technology." The Daily of the University of Washington, February 11, 2021.
- 19. Anh Nguyen. "Jacob Wobbrock receives Google Inclusion Award to create accessibility toolkit." UW Information School News, December 16, 2020.
- 20. Staff. "University of Washington AccessComputing faculty co-found new research center devoted to accessible technology." AccessComputing News, July 29, 2020.
- Nicole Ursprunger. "Microsoft invests \$2.5M in UW CREATE, a center for accessible technology." The Daily of the University of Washington, July 6, 2020.
- 22. Paxtyn Merten. "Microsoft investment leads establishment of UW accessible tech center." Puget Sound Business Journal, May 28, 2020.
- 23. Geoff Baker. "New UW center bankrolled by Microsoft aims to make technology more accessible to disabled people." The Seattle Times, May 28, 2020.
- 24. Kurt Schlosser. "Microsoft invests \$2.5M in CREATE, a new center for accessible tech at the University of Washington." GeekWire, May 28, 2020.
- 25. Doug Parry. "Q&A with Jacob Wobbrock on UW's new accessible technology research center." UW Information School News, May 28, 2020.
- 26. Jackson Holtz. "UW launches new Center for Research and Education on Accessible Technology and Experiences with \$2.5 million investment from Microsoft." University of Washington News, May 28, 2020.
- 27. Staff. "Faculty/staff honors: Housing association nod, honorary doctorate, distinguished fellow, best conference paper." University of Washington News, December 2, 2019.
- 28. Staff. "2019 SIGACCESS ASSETS Paper Impact Award winner." SIGACCESS News, November 8, 2019.
- 29. Staff. "Allen School accessibility researchers past and present shine at ASSETS 2019." UW Allen School News, November 6, 2019.
- 30. Rochelle Bowyer. "iSchool ACE Lab challenges the lack of accessibility in technology." The Daily of the University of Washington, October 28, 2019.
- 31. Doug Parry. "iSchool's Wobbrock honored for accessibility work on mobile touch screens." UW Information School News, September 30, 2019.
- 32. Doug Parry. "iSchool, UW make another strong showing at CHI." UW Information School News, April 26, 2019.
- 33. Doug Parry. "Friedman, Wobbrock among 3 UW faculty to earn top honor in HCI." UW Information School News, February 13, 2019.
- 34. Staff. "UW's Jennifer Mankoff, Batya Friedman and Jacob Wobbrock elected to CHI Academy." UW Allen School News, February 13, 2019.
- 35. Rebekah Denn. "In the era of spellcheck and auto-correct, does it matter that my son can't spell?" The Washington Post, January 29, 2019.
- 36. Staff. "MSIM student digs into research on small icons, big data." UW Information School News, December 7, 2017.
- 37. Herb Weisbaum. "UW student hopes to make touch screen technology accessible to more people." KOMO Midday News, September 25, 2017.
- 38. Andrew Leibs. "Free Windows software to make PC more accessible." ThoughtCo.com, July 31, 2017.
- 39. Staff. "New leader takes helm of popular Informatics program." UW Information School News, July 27, 2017.
- 40. Arunabh Satpathy. "Why the United Airlines debacle was just bad service design." Medium.com, May 4, 2017.
- 41. 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.
- 42. Staff. "Slide to unlock." Interactive Feature for the University of Washington Be Boundless Campaign, April 3, 2017.
- 43. Tamanna Mishra. "Multitasking is certainly possible, but only if done right." YourStory, March 1, 2017.
- 44. Staff. "Wobbrock, MAD Lab make technology accessible for all." UW Information School News, February 21, 2017.
- 45. Staff. "Jacob Wobbrock honored with SIGCHI Social Impact Award." UW Information School News, February 17, 2017.
- 46. Aysha Khan. "How Project Sidewalk is making DC more accessible." Technical.ly, November 30, 2016.
- 47. IANS. "Baidu's Deep Speech 2 recognition software can write text messages faster than humans: Study." BGR India, August 30, 2016.
- 48. IANS. "Smartphone speech recognition software can write three times faster than humans." Ummid.com, August 29, 2016.
- 49. Carmen Triola. "This speech recognition software is much faster than human typists." Mashable, August 29, 2016.
- 50. Abhimanyu Ghoshal. "Stanford speech recognition study suggests you should give dictation apps a chance." TNW Insider, August 27, 2016.
- 51. Nick Lavars. "Hey Siri, study says speech recognition software blitzes humans at texting." New Atlas, August 26, 2016.
- 52. Jasmine Solana. "Quick pro quo: Software writes text 3x faster than any human can." Futurism, August 25, 2016.
- 53. Staff. "Study: Talking to your smartphone is 3X faster than typing." UW Information School News, August 25, 2016.
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- 56. Adam Rowe. "Study: Voice recognition software officially types better than humans." Tech.Co, August 24, 2016.
- 57. Luke Dormehl. "Smartphone speech recognition can text 3 times faster than you can type." Digital Trends, August 24, 2016.
- 58. Aarti Shahani. "Voice recognition software finally beats humans at typing, study finds." All Things Considered, NPR News, August 24. 2016.
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- 61. Ian Mills. "Meditation in the workplace Making staff more productive." Huffpost Business, May 24, 2016.
- 62. Staff. "Smart Touch accessibility work earns Best Paper Award at CHI." UW Information School News, March 17, 2016.
- 63. Staff. "Best paper awards for the iSchool at CHI." UW Information School News, March 10, 2015.
- 64. Harry Bradford. "These 4 genius hacks let you use an iPhone with gloves on." The Huffington Post, Tech section, January 26, 2015.
- 65. University of Washington Continuing Education. "UW Master of Human-Computer Interaction + Design." December 10, 2014.
- 66. Michelle Burbick. "A millennial minute: My take as a young, digital worker." No Jitter: Insight for the Connected Enterprise, November 17, 2014.
- 67. Erin Van Bronkhorst. "UW names 5 profs to be key mentors for health care enterprise." Puget Sound Business Journal, July 2, 2014.
- 68. Staff. "Wobbrock and Ko appointed 2014 Presidential Entrepreneurial Faculty Fellows." UW Information School News, June 30, 2014.
- 69. Clare LaFond. "UW appoints 2014 Presidential Entrepreneurial Faculty Fellows." UW Center for Commercialization News, June 30, 2014.
- 70. Staff. "David McDonald to chair HCDE; new HCI faculty bring data visualization and design expertise." UW Information School News, June 20, 2014.
- 71. Staff. "Jacob Wobbrock receives Google Faculty Research Award." UW Information School News, March 3, 2014.
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- 73. Nic Halverson. "Gesture reader lets blind decipher documents." Discovery News, May 1, 2013.
- 74. Zahra Barnes. "Overwhelmed? (Don't answer that.) Meditation will help. Stay with us here." Self Magazine, May 2013, p. 120.
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- 80. Staff. "Jacob Wobbrock awarded \$500K NSF grant to design more accessible mobile devices." UW Information School News, September 11, 2012.
- 81. UW TV. "University of Washington campus tour 2012." August 29, 2012.
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- 86. Peter Kelley. "Mindful multitasking: Meditation first can calm stress, aid concentration." University of Washington News, June 13, 2012.
- 87. Jim Giles. "Touchscreens learn your habits to help you type faster." New Scientist, May 30, 2012.
- 88. Staff. "UW President Michael Young attends dub retreat." UW CSE News, April 27, 2012.
- 89. Joon Yi. "Two UW students named Facebook Fellows." The Daily of the University of Washington, February 22, 2012.
- 90. Todd Bishop. "Better typing while walking, and other cool stuff from UW." GeekWire, October 20, 2011.
- 91. Eric Smalley. "Portico takes tablets off-screen." C|NET News, October 12, 2011.
- 92. Duncan Graham-Rowe. "Taking touch beyond the touch screen." M.I.T. Technology Review, September 23, 2011.
- 93. June Simms. "A better computer mouse cursor for the disabled." Voice of America, April 17, 2011.
- 94. Mark Gibbs. "Improved mouse control for users with disabilities." PC World, Business Center section, April 16, 2011.
- 95. Mark Huffman. "Free software makes using a mouse easier: Designed for people with motor disabilities." ConsumerAffairs.com, April 13, 2011.
- 96. Staff. "Pointing Magnifier and Angle Mouse Mouse apps for older computer users." Bill Mullins' Weblog, April 13, 2011.
- 97. Staff. "Making mouse clicking easier." Kurzweil Network, April 11, 2011.
- 98. Roblimo. "Free software helps disabled use mouse." Slashdot.com, Hardware section, April 10, 2011.
- 99. Darren Quick. "Researchers tackle mouse control from a different angle." New Atlas, April 10, 2011.
- 100. Catherine O'Donnell. "Free software makes computer mouse easier for people with disabilities." University of Washington News, April 7, 2011.
- 101. Staff. "UW, iSchool dominate CHI awards." UW Information School News, April 5, 2011.
- 102. Staff. "Record year for iSchool, dub at CHI 2011." UW Information School News, February 17, 2011.
- 103. Staff. "Shaun Kane: Success by design." UW Information School News, November 8, 2010.
- 104. Staff. "Drs. Ko, Wobbrock earn best paper at VL/HCC." UW Information School News, September 24, 2010.
- 105. Hannah Hickey. "Deaf, hard-of-hearing students do first test of sign language by cell phone." University of Washington News, August 19, 2010. Story picked up by KING 5 and KCPQ 13 local television news.
- 106. Jean Patterson. "Junior faculty blaze path forward for iSchool." UW Information School News, July 16, 2010.
- 107. Justin Rattner. Research@Intel Day 2010 keynote with Intel CTO Justin Rattner, June 30, 2010.
- 108. CmdrTaco. "Demo of laptop/tabletop hybrid UI." Slashdot.com, Hardware section, April 14, 2010.
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- 110. Larry Larsen. "Using your voice to paint." Channel 9 from MSDN. April 1, 2010.
- 111. Nick Eaton. "Tabletop UI, wireless power and more from Intel Labs Seattle." Seattle Post-Intelligencer Blogs. September 30, 2009.
- 112. Staff. "Tuning technology to special needs." UW Information School News, May 28, 2009.
- 113. Larry Greenemeier. "Microsoft tries to get a grip on touch computing with Surface." Scientific American, 60-Second Science Blog, April 11, 2009.
- 114. Ina Fried. "Microsoft puts finger on better gestures." C|NET News, April 6, 2009.

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- 115. Ivanhoe Newswire. "Pimp my program: Help for the disabled." Television news release, March 2009.
- 116. Richard Seven. "Researchers work on developing sign language for cellphones." The Seattle Times, December 2, 2008.
- 117. Richard Seven. "UW creates a computer mouse driven by sound." The Seattle Times, October 6, 2008.
- 118. Robert P. Bennett. "Squaring off with EdgeWrite." Disaboom, Tech & Tools section, September 23, 2008.
- 119. Lee Bruno. "An interface for your eyes only." The Guardian (U.K.), August 27, 2008.
- 120. Hannah Hickey. "Signing by cell: Can you see me now?" University of Washington News, August 21, 2008.
- 121. Hannah Hickey. "For your eyes only: Custom interfaces make computer clicking faster, easier." University of Washington News, July 15, 2008.
- 122. Staff. "The Dobbs Challenge contest winners announced." Gamasutra.com, June 19, 2008. Mr. Spiff's Revenge by POW Studios, which heavily utilizes my \$1 gesture recognizer, wins Best Windows Game.
- 123. Lynne Harris. "NISH recognizes college engineers for inventions designed to help people with disabilities in the workplace." National press release, June 11, 2008.
- 124. Staff. "iSchool garners three Best Paper Awards at CHI 2008." UW Information School News, April 3, 2008.
- 125. Virginia Gold. "SIGCHI announces Best of CHI 2008 award winners." ACM News Release, April 3, 2008.
- 126. Staff. "Dominating DUB." Etc: Campus News & Notes. University Week 25 (18), February 28, 2008, p. 3.
- 127. Staff. "COMPUTER: Malen mit der Stimme." Der Spiegel 43, October 22, 2007, p. 215.
- 128. Patrick Pettibon. "CMU, Pitt receive \$15 million research grant." The Tartan, August 28, 2006.
- 129. Holly Witteman. "Perspectives on CHI 2006." SIGCHI Bulletin 38 (3), July 2006.
- 130. Ivanhoe Broadcast News. "Hi-tech typing." Television news release, October 2005.
- 131. Vicki Contavespi. "NISH announces winners of 2004-2005 National Scholar Awards for Workplace Innovation & Design." National press release, May 2005.
- 132. Byron Spice. "Text with an edge." Pittsburgh Post-Gazette, Monday, November 29, 2004, p. A-6. Full-page feature.
- 133. Todd Bishop. "Microsoft DemoFest offers look at latest university research." Seattle Post-Intelligencer, August 3, 2004.
- 134. Staff. "Prototype: Write steady." M.I.T. Technology Review 108 (8), August 1, 2005, p. 27.
- 135. Staff. "Science honors." Pittsburgh Post-Gazette, Science & Environment section, Monday, July 4, 2005, p. A-6.
- 136. Staff. "Personal mention." Carnegie Mellon 8½ × 11 News 15 (46), June 9, 2005.
- 137. Steve August. "Debugging the user code, part 2: Integrating users into product development." productmarketing.com Magazine 2 (1), January/February 2004, pp. 17-23.
- 138. Alison Overholt. "Sidebar: Pardon the interruption." Fast Company Magazine 63, October 2002, p. 118.

### **Entrepreneurship Press Coverage**

- 1. Taylor Soper. "UW spinout AnswerDash, a contextual Q&A service for customer support, acquired by CloudEngage." GeekWire, June 23, 2020.
- Staff. "CloudEngage acquires Seattle-based AnswerDash, expanding personalization capabilities to include AI powered self-service support." PR Newswire, June 23, 2020.
- Data Bridge Market Research. "Global customer self-service software market 2017: Top key manufacturers are Microsoft Corporation, SAP SE, Verint Systems, Inc., Recursive Labs, Inc., Inbenta Technologies, Inc., ANSWERDASH, Salesforce.com." openPR, November 7, 2017.
- 4. 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.
- 5. Dom Nicastro. "What's in a name: PlacelQ, AnswerDash, Redbooth." CMSWire, October 22, 2015.
- 6. Rachel Lerman. "Tech Spotlight: AnswerDash solves your confusion when using websites." The Seattle Times, September 20, 2015.
- 7. Taylor Soper. "UW spinout AnswerDash raises \$2.9M to support growth of online contextual help platform." GeekWire, September 14, 2015.
- 8. Michael Guta. "AnswerDash earns 'Cool Vendor' status from Gartner." TMCnet, Call Center Services Featured Article, July 20, 2015.
- 9. Kristina Knight. "Ad Roundup: Platforms to protect data, give answers." BizReport, July 9, 2015.
- 10. AnswerDash. "Gartner names AnswerDash a 'Cool Vendor' in CRM Customer Service and Support, 2015." Marketwired, July 9, 2015.
- 11. Paul N. Luvera. "Advice from the son of a lawyer and thoughts about expert witnesses." Plaintiff Lawyer Tips, July 5, 2015.
- 12. Adam Bryant. "Jake Wobbrock of AnswerDash: Lead with strengths, and weaknesses." The New York Times, June 30, 2015.
- 13. John Cook. "Tech Moves: Ex-Impinj CEO tapped for top post at AnswerDash." GeekWire, June 3, 2015.
- 14. AnswerDash. "AnswerDash appoints William Colleran as new Chief Executive Officer." Marketwired, June 3, 2015.
- 15. Staff. "People on the move: William Colleran, Ph.D." Seattle Business Magazine, June 2, 2015.
- 16. Maurice Nagle. "Contact Center Analytics week in review: Toshiba, SAS, AnswerDash and more." Contact Center Analytics Review, May 9, 2015.
- 17. Casey Houser. "AnswerDash matches customer concerns with website and app UX." Contact Center Analytics Review, May 5, 2015.
- 18. Staff. "AnswerDash launches new web analytics features." destinationCRM.com, April 23, 2015.
- 19. AnswerDash. "AnswerDash analytics provides instant insight into web users' behaviors." Marketwired, April 23, 2015.
- 20. 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.
- 21. Staff. "The evolution of an iSchool startup." UW Information School News, April 7, 2015.
- 22. Steven Goldsmith. "AnswerDash aims to make your website smarter." Puget Sound Business Journal, March 20, 2015.
- 23. Ian Barker. "Web app self-service reduces support queries and cuts costs." BetaNews, February 17, 2015.
- 24. AnswerDash. "AnswerDash reports customers experience an average cost savings of \$20K a year in customer support." Marketwired, February 12, 2015.
- 25. John Cook. "Tech moves..." GeekWire, January 27, 2015.

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26. AnswerDash. "AnswerDash announces new hire Kevin Knoepp as Vice President of Engineering." Marketwired, January 22, 2015.

- 27. Rieva Lesonsky. Cooking lessons for startups, video contests and more. SmallBizDaily, December 20, 2014.
- 28. Ian Barker. "Self service platform helps cut online help desk requests." BetaNews, December 18, 2014.
- 29. Staff. "AnswerDash integrates with Zendesk." destinationCRM.com, December 18, 2014.
- 30. AnswerDash. "AnswerDash transforms Help Center into point-and-click contextual self-service platform with Zendesk integration." Marketwired, December 18, 2014.
- 31. Derek Schou. "Ease the pressure on your support team with new AnswerDash integration." Website Magazine, December 17, 2014.
- 32. Paula Bernier. "Making websites pay off." TMCnet, December 4, 2014.
- 33. Derek Schou. "Don't lose out on holiday conversions with a slow site." Website Magazine, November 10, 2014.
- 34. Staff. "A dubious honor for IRS.gov, cyber-training priorities, worldwide warrants and more." Federal Computer Week, November 7, 2014.
- 35. Ian Barker. "Usability survey reveals the most frustrating websites." BetaNews, November 7, 2014.
- 36. 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.
- 37. Allison Howen. "Q&A for every page of your site." Website Magazine, October 13, 2014.
- 38. Paula Bernier. "AnswerDash makes websites more helpful." TMCnet, Call Center Software Featured Article, October 8, 2014.
- 39. Barry Levine. "U. of Washington-spinoff AnswerDash launches to make everything on a Web page questionable." VentureBeat, October 8, 2014.
- 40. AnswerDash. "U.S. Green Building Council selects AnswerDash's contextual website help technology to power USGBC.ORG." Marketwired, October 8, 2014.
- 41. Jake Wiederrich. "Sound Startups." KIRO 7 News Special, October 4, 2014.
- 42. Matt Mullen. "AnswerDash provides 'first line of defense' for website customer service inquiries." 451 Research, Impact Report, August 21, 2014.
- 43. Taylor Soper. "New record: University of Washington spun out 18 startups last year." GeekWire, July 2, 2014.
- 44. Sam Becker. "Bright idea: UW-spawned platform makes websites more responsive." Seattle Business Magazine 25 (7), July 2014.
- 45. 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.
- 46. Benjamin Romano. "Stuck on Website 'Help Island'? First UW iSchool Spinout Has the Answer." Xconomy, May 23, 2014.
- 47. Taylor Soper. "UW spinout AnswerDash launches, names ex-Drugstore.com CEO Dawn Lepore to board." GeekWire, May 20, 2014.
- 48. Staff. "Qazzow becomes AnswerDash." Northwest Innovation, May 20, 2014.
- 49. Qazzow. "Qazzow changes name to AnswerDash and welcomes new board of directors and advisory board members." PRWeb, May 20, 2014.
- 50. Jay Sommerville. "Sound Startups" 30-second spot featuring AnswerDash, Moz, and Redfin. KIRO 7 News. First aired April 21, 2014.
- 51. Taylor Soper. "Husky Pride: Check out these 5 startups founded by University of Washington grads, professors." GeekWire, April 16,
- 52. Joe Veyera. "iSchool spinout receives funding for Q&A technology." The Daily of the University of Washington, January 5, 2014.
- 53. John Cook. "Startup Hall: University of Washington looks to transform old law school into magnet for startups." GeekWire, December 17, 2013.
- 54. John Cook. "UW spin-out Qazzow scores \$2.4M to bolster customer service on e-commerce sites." GeekWire, December 16, 2013.
- 55. Emily Parkhurst. "Helping help': UW startup gets \$2.4M to provide smarter in-app help." Puget Sound Business Journal, December
- 56. Staff. "Qazzow lands \$2.4M." Northwest Innovation, December 16, 2013.
- 57. Qazzow. "Qazzow secures \$2.4 million in Series A financing." PRWeb, December 16, 2013.
- 58. Gregg Bayes-Brown. "Institutions at the heart of the west coast success story." Global University Venturing News, November 18, 2013.
- 59. Gregg Bayes-Brown. "W Fund answers Qazzow with \$500k." Global University Venturing News, November 6, 2013.
- 60. John Cook. "UW spin out Qazzow scores \$500,000, helps customers get questions answered on e-commerce sites." GeekWire, November 5, 2013.
- 61. Clare LaFond. "UW spin out Qazzow receives seed investment from W Fund." UW Center for Commercialization News, November 5, 2013.
- 62. Staff. "iSchool startup Qazzow receives seed investment from W Fund." UW Information School News, November 5, 2013.
- 63. Staff. "Qazzow scores \$500,000 seed investment." UW CSE News, November 5, 2013.
- 64. Clare LaFond. "C4C New Ventures Facility recognized among world's top business incubators." UW Center for Commercialization News, October 8, 2013.
- 65. Taylor Soper. "Innovation Showcase: E-commerce, learning and medical ventures in the spotlight." GeekWire, January 22, 2013.

# TEACHING\_

### Coursera.org

Online Designing, Running, and Analyzing Experiments >30,000 learners since Feb. 2016

# **University of Washington**

INSC 599†Practical Statistics for HCI>50 students since Nov. 2010INSC 571Quantitative Methods in Information ScienceWinter 2018-2019, 2021-2024

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INSC 570	Research Design	Autumn 2006-2009, 2015	
CSE 590W	Research Seminar: Accessibility	Spring 2012	
HCID 520	User Interface Software and Technology	Winter 2023	
IMT 565	Designing Information Experiences	Spring 2016-2019, 2021-2024	
IMT 540	Design Methods for Interactive Systems	Autumn 2007-2009	
INFO 470	Research Methods in Informatics	Autumn 2010-2011, 2016	
INFO 463	Input and Interaction	Spring 2008-2009, 2012, 2016	
INFO 444	Value Sensitive Design	Spring 2007	

#### **Carnegie Mellon University**

HCI 413\*Human FactorsAutumn 2004HCI 291HCI for Computer ScientistsSpring 2004

# **Stanford University**

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

<sup>†</sup>Independent Study; \*Teaching Assistant (TA)

#### **INDUSTRY POSITIONS**

# **Industry Positions**

- 1. Co-founder & Board Observer, AnswerDash Seattle, WA (Feb. 2018 June 2020)
- 2. Co-founder & Chief Experience Officer (C.X.O.), AnswerDash Seattle, WA (Dec. 2015 Feb. 2018)
- 3. Co-founder & Chief Scientist, AnswerDash Seattle, WA (May Dec. 2015)
- 4. Co-founder, President & C.E.O., AnswerDash Seattle, WA (Sept. 2012 May 2015)
- 5. Research Intern, Microsoft Research Redmond, WA (May Aug. 2003)
- 6. User Interface Contractor, Google Mountain View, CA (Feb. May 2001)
- 7. Senior User Interface Design-Engineer, DoDots Sunnyvale, CA (June 2000 Feb. 2001)
- 8. User Interface Design-Engineer, DoDots Mountain View, CA (Oct. 1999 June 2000)
- 9. Technical Intern, Intel-Mattel Smart Toy Lab Portland, OR (June Sept. 1999)
- 10. Technical Intern, Intel Hillsboro, OR (June Sept. 1997)

# **Technology Consulting**

- 1. Technical Consultant, Natural Input Solutions Toronto, ON (Oct. 2008 Oct. 2009)
- 2. Research Consultant, Microsoft Research Redmond, WA (Jan. Oct. 2008)
- 3. Usability Consultant, Ingrian Networks Redwood City, CA (May Sept. 2002)

# **Expert Witness**

- Maxell\* v. Lenovo [U.S. #8,982,086]: Mayer Brown (Aug. 2022 May 2023)\*
- 2. Smith Interface Technologies\* v. Samsung [U.S. #2016/0188181 patent family]: Norton Rose Fulbright (July 2022 June 2023)
- Impact Engine v. Google\* [U.S. #7,870,497 patent family]: Quinn Emanuel (Sept. 2021 Feb. 2022)
- 4. KinectUs v. Bumble\* [U.S. #9,294,428 patent family]: Cooley (Sept. Nov. 2021)
- 5. Google\* v. Neonode [U.S. #8,095,879]: Finnegan Henderson (May 2021 Sept. 2022)†
- 6. Maxell\* v. Apple [U.S. #8,982,086]: Mayer Brown (Oct. 2020 July 2021)†
- 7. Huawei v. Verizon\* [U.S. #7,715,832, U.S. #8,761,839]: Quinn Emanuel (June 2020 Apr. 2021)
- 8. Arendi S.A.R.L. v. HTC\* [U.S. #7,917,843, U.S. #8,306,993]: Sidley Austin (June July 2019)
- 9. Apple v. Qualcomm\* [U.S. #8,683,362]: Baker Botts (Nov. 2018 June 2019)†
- 10. Apple v. Qualcomm\* [U.S. #8,665,239]: Baker Botts (Oct. 2018 Aug. 2019) $^{\dagger}$
- 11. Qualcomm\* v. Apple [U.S. #8,497,928]: Quinn Emanuel (Apr. 2018)
- 12. HTC\* v. Philips [U.S. #RE44,006]: Perkins Coie (Dec. 2016 Apr. 2018)
- 13. Google\* v. BlackBerry [U.S. #8,411,845]: Mayer Brown (Nov. 2016 Jan. 2017)†
- 14. Adv. Touchscreen & Gesture Tech.\* v. Samsung [U.S. #8,717,303, U.S. #8,878,810]: Robins Kaplan (Apr. 2015 Dec. 2016)†
- 15. BlackBerry v. Typo Products\* [U.S. #7,629,964, U.S. #D685,775]: The Taillieu Law Firm (Jan. Feb. 2014)
- 16. HTC\* v. Apple [U.S. #6,473,006, U.S. #7,020,849]: Finnegan Henderson (Dec. 2011 July 2012)
- 17. Apple v. HTC\* [U.S. #5,946,647]: Keker Van Nest (Sept. 2011 Jan. 2012)<sup>†</sup>
- 18. HTC\* v. Apple [U.S. #5,541,988]: Finnegan Henderson and Keker Van Nest (June 2010 June 2011)
- 19. F&G Research v. Microsoft\* [U.S. #5,313,229]: K&L Gates (Oct. Nov. 2007)

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\*Retained by; †Inter partes review (IPR); †International Trade Commission (ITC)

#### **PRESENTATIONS**

#### **Invited Research Talks**

 "Ability-based design: What role might A.I. play?" (2022). Opening keynote, Michigan A.I. Symposium. University of Michigan, Ann Arbor, MI.

- 2. "My work in gesture: Design, recognition and open questions." (2021). Invited lecture, Conversations on Scalable Interaction Paradigms. University of Oldenburg, Germany.
- 3. "Addressing situational impairments in mobile human-computer interaction." (2021). Invited lecture, HCI Seminar. University College Dublin, Ireland.
- 4. "Hypertext, social media, and civic engagement: How hypertext is ruining the world, and might just save it." (2020). Opening keynote address, ACM Workshop on Human Factors in Hypertext (HUMAN '20). Virtual Event.
- 5. "Ability-based design." (2020). Invited lecture, COMP 6620: User Interface Design and Evaluation. Auburn University, Auburn, AL.
- 6. "Research contributions in HCI in a pandemic." (2020). Invited lecture and panelist, SummerPIT Workshop on Post-COVID Empirical Methods. Aarhus University, Denmark.
- 7. "Situationally aware mobile devices for overcoming situational impairments." (2019). Opening keynote address, ACM Symposium on Engineering Interactive Computing Systems. Valencia, Spain.
- 8. "Recognizing and designing gestures for user interfaces." (2019). Invited lecture, 05-640: Interaction Techniques. Carnegie Mellon University, Pittsburgh, PA.
- 9. "Addressing situationally-induced impairments and disabilities in mobile HCI." (2019). Invited lecture, Seminar on People, Computers and Design. Stanford University, Stanford, CA.
- 10. "Ability-based design: Designing for all people's abilities and situations." (2018). Distinguished lecture, Technology and Social Behavior Program. Northwestern University, Evanston, IL.
- 11. "Ability-based design: Elevating ability over disability in accessible computing." (2017). SIGCHI Social Impact Award talk, ACM Conference on Human Factors in Computing Systems. Denver, CO.
- 12. "Ability-based design: Elevating ability over disability in accessible computing." (2017). Invited lecture, Michigan Interactive and Social Computing Seminar. University of Michigan, Ann Arbor, MI.
- 13. "Ability-based design: Elevating ability over disability in accessible computing." (2017). Invited lecture, Luxembourg Institute of Science and Technology. Belval / Esch-sur-Alzette, Luxembourg.
- 14. "Input for people with motor impairments." (2016). Invited lecture, UW CSE MSR Summer Institute on Expanding Accessibility Research. Alderbrook Resort, Union, WA.
- 15. "From plastic to pixels: In pursuit of effective touch-typing on touch screens." (2012). Invited lecture, Microsoft Research. Redmond,
- 16. "Back to basics: Making pointing accessible." (2011). Invited lecture, Seminar on People, Computers and Design. Stanford University, Stanford, CA.
- 17. "Flipping the burden: Making computers accessible with everyday input devices." (2008). Distinguished lecture. School of Computer Science, Carnegie Mellon University, Pittsburgh, PA.
- 18. "Flipping the burden: Towards ability-based design." (2008). Invited lecture, HCI Seminar. University of Illinois–Urbana-Champaign, Champaign, IL.
- 19. "Accessible handheld and desktop text entry for people with motor impairments." (2005). Award presentation, NISH National Training and Achievement Conference. New Orleans, LA.
- 20. "Imagine EdgeWrite." (2005). Invited demonstration, Microsoft Research Tech Fair. Library of Congress, Washington, D.C.

### **Presentations to Industry or Government**

- 1. "The Center for Research and Education on Accessible Technology and Experiences." (2022). Video, flyer, and executive talking points for fundraiser with top Microsoft executives and alumni in support of the CREATE research center. Redmond, WA.
- 2. "The pointing magnifier." (2022). Demo presentation to Jenny Lay-Flurrie, Chief Accessibility Officer of Microsoft. Redmond, WA.
- 3. "UW CREATE." (2020). Invited presentation hosted by Microsoft Chief Accessibility Officer Jenny Lay-Flurrie for the Microsoft Annual Auction. Microsoft Corporation. Redmond, WA.
- 4. "Technology and disability." Ideagen Global podcast interview. (2019). August 23, 2019. Duration: 36 min.
- 5. "Ability-based design." (2019). Invited presentation at Microsoft's Annual Ideagen Global Innovation 2030 Summit, followed by a panel discussion on accessible technology. Redmond, WA.
- 6. "The Mobile and Accessible Design Lab." (2018). Presentation to the Sr. Director of University Research and Collaboration, Intel Corporation. Seattle, WA.
- "Radical Personalization: Walk the line or be left behind?" (2018). Invited presentation and panelist, iAffiliates Day. University of Washington Information School. Seattle, WA.
- 8. "Ability-based design: Making technologies match all people's abilities and context." (2018). Invited lecture, Puget Sound SIGCHI. Seattle, WA.
- 9. "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.
- "Research projects from the Mobile + Accessible Design Lab." (2017). Presentation to the Director of Inclusive Hiring and Accessibility, Microsoft Corporation. Redmond, WA.

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11. "The five F's for successful university startups." (2015). Invited panelist, visit to New Ventures Facility by Washington State representatives and senators. Seattle, WA.

- 12. "How to get website self-service right." (2015). Invited speaker, WritersUA West User Assistance Boot Camp. Seattle, WA.
- 13. "How millennials are shaping the future of customer service." (2015). Invited speaker, Support and Service Management Consortium. Seattle, WA.
- 14. "AnswerDash." (2014). Invited speaker, Western Regional State Small Business Credit Initiative Meeting. Seattle, WA.
- 15. "How technology research compares to doing a tech startup." (2014). Invited panelist, Human-Computer Interaction Institute 20th Anniversary Celebration, Carnegie Mellon University. Pittsburgh, PA.
- 16. "Research outside academia." (2014). Invited panelist, DUB Annual Retreat. Seattle, WA.
- 17. "Bootstrapped-to-public: The entrepreneurial path." (2014). Invited panelist, UW Foster School of Business and Stanford Graduate School of Business. Seattle, WA.
- 18. "AnswerDash." (2014). Presenter, UW Center for Commercialization New Ventures Facility Media Event. Seattle, WA.
- 19. "AnswerDash." (2014). Invited speaker, Seattle Tech Meetup. Seattle, WA.
- 20. "AnswerDash." (2014). Keynote speaker, UW Information School iAffiliates Day. Seattle, WA.
- 21. "Qazzow." (2013). Invited speaker, UW Information School All-Board Meeting. Seattle, WA.
- 22. "Qazzow: Sales, savings, and insights for e-commerce." (2013). Presenter, University Research and Entrepreneurship Symposium (URES '13). Boston, MA.
- 23. "Qazzow: Sales. Savings. Insights." (2013). Presenter, Technology Alliance Winter 2013 Innovation Showcase. Seattle, WA.
- 24. "Understanding gestures in user interfaces." (2010). Invited speaker, WritersUA Conference on Software User Assistance. Seattle, WA.
- 25. "Making computers accessible with everyday input devices." (2009). Invited speaker, WritersUA Conference on Software User Assistance. Seattle, WA.
- 26. "Flipping the burden: Making computers accessible with everyday input devices." (2008). Keynote speaker, InfoCamp. Seattle, WA.

#### **Conference Paper Presentations**

- 1. "Accessibility research centers: What they are and how to become involved." (2021). Invited panelist, CMD-IT/ACM Richard Tapia Celebration of Diversity in Computing Conference. Virtual Event.
- "Isolating the effects of web page visual appearance on the perceived credibility of online news among college students." (2019).
   ACM Conference on Hypertext and Social Media. Hof, Germany.
- 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 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 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.
- "Text entry from power wheelchairs: EdgeWrite for joysticks and touchpads." (2004). ACM 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.

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# **UW Internal Talks**

1. "Human-Computer Interaction: Bridging the Gap between People and Technology." (2024). Invited panelist, Women in Informatics (WINFO), University of Washington Information School.

- 2. "Student spotlight: IMT 565 Designing information experiences." (2022). All-Board Meeting, University of Washington Information School.
- 3. "Ability-based design." (2022). Immersion Studio, Master of Human-Computer Interaction and Design, University of Washington.
- 4. "UW CREATE." (2020). Celebration of Accessibility, University of Washington.
- 5. "Challenges and obligations of deploying and supporting assistive technologies from academic research." (2020). AccessComputing Partner Meeting, University of Washington.
- 6. "Lasting impact: A panel with 3 recent iSchool award winners." (2019). Research Symposium, University of Washington Information School.
- 7. "Ability-based design: Elevating ability over disability in accessible computing." (2017). DUB Seminar, University of Washington.
- 8. "Ability-based design: Elevating ability over disability in accessible computing." (2017). Research Symposium, University of Washington Information School.
- 9. "From plastic to pixels: In pursuit of effective touch-typing on touch screens." (2012). DUB Seminar, University of Washington.
- 10. "Back to basics: Making pointing accessible." (2011). DUB Seminar, University of Washington.
- 11. "Accessing the world: Projects by the iSchool's AIM Research Group." (2009). Board of Regents Meeting, University of Washington.
- 12. "Overview of the AIM Research Group." (2009). All-Board Meeting, University of Washington Information School.
- 13. "Making computers accessible with everyday input devices." (2009). Research Conversation, University of Washington Information
- 14. "User-defined vs. researcher-defined gestures." (2009). DUB Seminar, University of Washington.
- 15. "An error model for pointing based on Fitts' law." (2008). DUB Seminar, University of Washington.
- 16. "Achieving fundamental improvements in computer access." (2008). Design Machine Group, University of Washington Architecture Department.
- 17. "Movement, input and errors." (2007). DUB Seminar, University of Washington.
- "Improving the accessibility of mobile devices for motor and situational impairments." (2007). Invited Speaker, iEdge Conference, University of Washington ASIS&T Chapter.
- 19. "EdgeWrite text entry and mobile accessibility." (2006). Founders' Board Meeting, University of Washington Information School.

### RESEARCH ADVISING

#### Ph.D. Advisees

- 1. Melanie Kneitmix, Advisor, Computer Science, 2023 present.
- 2. Arnavi Chheda-Kothary, Co-advisor with Jon E. Froehlich, Computer Science, 2023 present.
- 3. Claire Mitchell, Advisor, Information Science, 2022 present.
- 4. Zhuohao (Jerry) Zhang, Advisor, Information Science, 2021 present.
- 5. Judy Kong, Advisor, Information Science, 2020 present.
- 6. Mingyuan (Jason) Zhong, Co-advisor with James Fogarty, Computer Science, 2019 present.
- 7. Lisa Elkin, Co-advisor with Shwetak N. Patel, Computer Science, 2018 present.
- 8. Ather Sharif, Advisor, Computer Science, 2018 present.
- 9. Rachel Franz, Advisor, Information Science, 2017 present.
- 10. Mingrui (Ray) Zhang, Advisor, Information Science, 2017-2022. First position at Meta NYC.
- 11. Anne Spencer Ross, Co-advisor with James Fogarty, Computer Science, 2017-2021. First position as assistant professor at Bucknell University.
- 12. Abdullah X. Ali, Advisor, Information Science, 2016-2020. First position at Amazon Web Services.
- 13. Alex Mariakakis, Co-advisor with Shwetak N. Patel, Computer Science, 2015-2019. First position as postdoctoral researcher at the University of Washington and Sage Bionetworks.
- 14. Martez Mott, Advisor, Information Science, 2012-2018. First position as postdoctoral researcher at Microsoft Research.
- 15. Katie O'Leary, Co-advisor with Wanda Pratt, Information Science, 2012-2017. First position at Google.
- 16. Jessica J. Tran, Co-advisor with Eve Riskin and Richard E. Ladner, Electrical Engineering, 2011-2014. First position at Thomson Reuters.
- 17. Jeff Huang, Co-advisor with Susan Dumais, Information Science, 2011-2013. First position as assistant professor at Brown University.
- 18. Abigail Evans, Co-advisor with Katie Davis, Information Science, 2010-2018. First position at Google.
- 19. Shiri Azenkot, Co-advisor with Richard E. Ladner, Computer Science, 2009-2014. First position as assistant professor at Cornell Tech.
- 20. Kristen Shinohara, Co-advisor with Wanda Pratt, Information Science, 2008-2017. First position as assistant professor at Rochester Institute of Technology.
- 21. Parmit K. Chilana, Co-advisor with Amy J. Ko, Information Science, 2008-2013. First position as assistant professor at University of Waterloo.
- 22. Shaun K. Kane, Co-advisor with Richard E. Ladner, Information Science, 2006-2011. First position as assistant professor at University of Maryland—Baltimore County.
- 23. Susumu Harada, Co-advisor with James Landay, Computer Science, 2006-2010. First position at IBM Tokyo Research Lab.
- 24. Krzysztof Z. Gajos, Co-advisor with Daniel S. Weld, Computer Science, 2006-2008. First position as assistant professor at Harvard University.

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#### **Postdoctoral Scholars**

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

# **External Ph.D. Committees**

1. Nathan Magrofuoco, dissertation committee, Computer Science, Université catholique de Louvain, Belgium, 2021. First position at unanim studio.

- 2. Eugene M. Taranta II, dissertation committee, Computer Science, University of Central Florida, 2017-2020. First position at Northrop Grumman.
- 3. Aakar Gupta, dissertation committee, Computer Science, University of Toronto, 2017. First position as postdoctoral researcher at the University of Waterloo.
- James Clawson, dissertation committee, Human-Centered Computing, Georgia Institute of Technology, 2008-2012. First position as
  postdoctoral researcher at Georgia Institute of Technology.

# Internal Ph.D. Committees (non-advisees)4

- 1. Ishan Chatterjee, dissertation GSR, Computer Science, 2023 present.
- 2. Lotus Zhang, dissertation GSR, Human-Centered Design & Engineering, 2022 present.
- 3. Dhruv Jain, dissertation GSR, Computer Science, 2020-2022. First position as assistant professor at University of Michigan.
- 4. Xiaoyi Zhang, dissertation committee, Computer Science, 2018. First position at Apple Research.
- 5. Dun-Yu Hsiao, dissertation GSR, Electrical Engineering, 2016-2017. First position at Zillow.
- 6. Charlie Matlack, dissertation GSR, Electrical Engineering, 2013-2014. First position at PotaVida.org.
- 7. Nicola Dell, dissertation committee, Computer Science, 2012-2015. First position as assistant professor at Cornell Tech.
- 8. Hao Lü, dissertation committee, Computer Science, 2012-2014. First position at Google.
- 9. Morgan Dixon, dissertation committee, Computer Science, 2012-2014. First position at Adobe Research.
- 10. Suporn Pongnumkul, dissertation proposal GSR, Computer Science, 2011. First position at National Electronics and Computer Technology Center, Thailand.
- 11. Michael Toomim, dissertation proposal committee, Computer Science, 2010-2013. Did not graduate.
- 12. Jaehong Chon, dissertation GSR, Electrical Engineering, 2009-2011. First position at Qualcomm.
- 13. Chandrika Jayant, dissertation committee, Computer Science, 2009-2011. First position at Nokia Research.
- 14. Colin Birge, dissertation proposal committee, Human-Centered Design & Engineering, 2008-2013. First position as business analyst at the University of British Columbia.
- 15. Craig M. Prince, dissertation committee, Computer Science, 2007-2011. First position at Google.
- 16. Alan L. Liu, dissertation committee, Computer Science, 2007-2010. First position at Kiha Software.
- 17. Anna Cavender, dissertation committee, Computer Science, 2007-2010. First position at Google.
- 18. Neva Cherniavsky, dissertation committee, Computer Science, 2008-2009. First position as postdoctoral researcher at INRIA, France.
- 19. Jeffrey Bigham, dissertation committee, Computer Science, 2006-2009. First position as assistant professor at University of Rochester.
- 20. Jerrod A. Larson, dissertation GSR, Technical Communication, 2008-2009. First position at Boeing.
- Jon DeShazo, dissertation GSR, Biomedical & Health Informatics, 2007-2009. First position as assistant professor at Virginia Commonwealth University.

# Other Research Advising

- 1. Melanie Wells, M.Des. in Interaction Design, 2022-2023. First position at gotomedia.
- 2. Anastasia Schaadhardt, Ph.D. in Information Science, 2019-2021. Switched advisors.
- 3. Lara Hattatoglu, Research Assistant, Human-Centered Design & Engineering major, 2020-2021. First position at Deloitte Digital.
- 4. Ying-Chao "Tony" Tung, Advisor, Ph.D. in Computer Science, 2016-2019. Departed with M.S. in Computer Science. First position at Asana.
- 5. Erin McAweeney, Research Assistant, MSIM, 2016-2018. First position at Google News.
- 6. Anya K. Hsu, Informatics Capstone and Research Assistant, 2016-2017. First position at Aerotek.
- 7. Dimitra Anastasiou, European Union Programme Horizon 2020, Luxembourg Institute of Science and Technology, 2017-2019.
- 8. Chinmay Nirkhe, Research Assistant, Lakeside Upper School, 2012. Enrolled as undergraduate, California Institute of Technology.
- 9. Phillip Pasqual, Research Assistant, Informatics major, 2011-2013.
- 10. Katie O'Leary, Research Assistant, 2010-2012. Enrolled in Information Science Ph.D. program, University of Washington.
- 11. Nelson Nogales, Research Assistant, 2010-2011. First position at ZAAZ.
- 12. Alex Jansen, Advisor, Ph.D. in Information Science, 2010-2013. Departed with M.S. in Information Science. First position at Revolv.
- 13. Tressa Johnson, Research Assistant, MLIS, 2009-2010.
- 14. Alex Jansen, NSF REU Scholar, Informatics major, 2009-2010. Enrolled in Information Science Ph.D. program, University of Washington.
- 15. Peter Kamb, NSF REU Scholar, Informatics major, 2009-2010. First position at Swype.
- 16. Eun Kyoung Choe, Ph.D. in Information Science, 2008-2009. Switched advisors.

<sup>&</sup>lt;sup>4</sup> At the University of Washington, a "GSR" is a "Graduate School Representative," which is required for every doctoral dissertation defense. The GSR's role is to ensure both a *rigorous* and a *fair* examination of the student.

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# SERVICE

# **University of Washington**

# The Information School

Lead, HCID Expertise Group (EG): 2023 - present.

Member, Joint Data Science and HCI Teaching-Track Search Committee: 2022-2023.

Chair, HCI Faculty Search Committee: 2020-2021.

Ad hoc Reviewer, Open Search Committee: 2019.

Past-Chair, Elected Faculty Council (EFC): 2018-2019.

Chair, Elected Faculty Council (EFC): 2017-2018.

Chair-Elect, Elected Faculty Council (EFC): 2016-2017.

Chair, HCI for Social Good Faculty Search Committee: 2016-2017.

Faculty Lead, MSIM User Experience (UX) Specialization: 2013 – present.

Chair, MSIM Information Architecture & Organization Subcommittee: 2013-2014.

Member, Elected Faculty Council: 2011-2012.

Member, Ph.D. Admissions Committee: 2006-2011.

Member, Ph.D. Program Committee: 2007-2011.

Member, HCI Jr. Faculty Search Committee: 2007-2008.

Member, Recognition & Nomination Committee: 2006-2008.

Member, Social Committee: 2006-2007.

# Center for Research and Education on Accessible Technology and Experiences (CREATE)

Associate Director: 2023 – present Founding Co-Director: 2020-2023.

#### Master of Human-Computer Interaction + Design (MHCID)

Member, Interdisciplinary Faculty Group: 2020-2023.

Member, Associate Director Search Committee: 2021-2022.

Member, Admissions Committee: 2013, 2022-2023.

Chair, Admissions Committee: 2014-2017.

Chair: 2015-2016.

Co-Chair: 2013-2015.

Co-Founder: 2009-2012.

# DUB Group (design: use: build: )

Co-Chair, DUB Interdisciplinary Faculty Committee: 2013-2015.

Presenter, DUB State of the Union Address: 2012.

Co-Chair, DUB Annual Retreat: 2012.

Member, DUB CHI Reception Planning Committee: 2009, 2011.

Member, DUB Annual Retreat Planning Committee: 2008, 2011.

# CoMotion (tech transfer)

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

Invited Judge, Shobe Startup Prize: 2015.

# **Carnegie Mellon University**

Co-Creator, HCI 15-291: HCI for Computer Scientists: 2003.

Member, Admissions Committee for Ph.D. in Human-Computer Interaction: 2002.

# **Industry Boards**

Board Observer, AnswerDash: 2016-2020.

Chairman of the Board, AnswerDash: 2013-2015.

Advisor, Seattle InfoCamp Advisory Board: 2008-2012.

Advisor, Statewide Website Advisory Group, Washington State Access to Justice Board: 2007-2009.

# Other Service

Volunteer, Laurelhurst Elementary School Library: 2012-2013.

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# Service to My Field

### **External Tenure & Promotion Reviewer**

Six (6) external T&P cases reviewed from 2016-2021:

- o Cornell Tech
- o University of Florida
- Stanford University
- o Cornell University
- o Cornell Tech
- o University of Waterloo

#### Federal Grants Reviewer

Panelist, National Science Foundation, IIS Human-Centered Computing: 2023. Panelist, National Science Foundation, IIS Cyber-Human Systems: 2015.

#### Journal Associate Editor

ACM Transactions on Computer-Human Interaction (ACM Press): 2012-2022. 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.

#### **Conference Committees**

ACM SIGCHI Research Awards (CHI Academy, Lifetime Research Award): 2022-2024. General Co-Chair, ACM User Interface Software and Technology (UIST): 2022.†
Conference Co-Chair, ACM Human Factors in computing Systems (CHI): 2020.†
Program Co-Chair, ACM User Interface Software and Technology (UIST): 2016.
Workshops Co-Chair, ACM Human Factors in Computing Systems (CHI): 2010.

†Service period was from January 2020 – November 2022.

<sup>†</sup>Resigned with Co-Chair after 12 months of service.

#### Program Committees (PCs)

ACM Human Factors in Computing Systems (CHI) (5 years): 2008-2009, 2011-2012, 2017. ACM User Interface Software and Technology (UIST) (3 years): 2007, 2009, 2011. ACM User Interface Software and Technology Visions track (UIST Visions): 2018. ACM Computers and Accessibility (ASSETS) (4 years): 2008, 2010-2011, 2018. Information Schools' Conference (iConference): 2011. Pervasive Computing (Pervasive): 2007.

# **Doctoral Symposia**

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

# **Conference Session Chair**

ACM Human Factors in Computing Systems (CHI):

- o 2017: Improving touch interfaces
- o 2009: Pointing and cursor techniques
- o 2008: Tangibles: Input & output

ACM User Interface Software & Technology (UIST):

- o 2017: Phones & watches
- o 2016: Interaction techniques
- o 2011: Pointing
- o 2009: Mobile magic

ACM Computers and Accessibility (ASSETS):

o 2017: Memory impairments & motor impairments

ACM Hypertext & Social Media (HT):

o 2019: Search & browsing

# Journal Peer-Reviewer

ACM Transactions on Computer-Human Interaction (TOCHI): 2006, 2008-2009, 2012-2017, 2019-2022.

PACM Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT): 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) (21 years): 2003-2019, 2021-2024.

ACM User Interface Software & Technology (UIST) (13 years): 2004-2012, 2014-2017.

ACM Computers and Accessibility (ASSETS) (4 years): 2008, 2010-2011, 2018.

ACM Human-Computer Interaction with Mobile Devices and Services (MobileHCI): 2012, 2022.

ACM Engineering Interactive Computing Systems (EICS): 2018.

ACM Designing Interactive Systems (DIS): 2012.

ACM Interactive Tabletops and Surfaces (ITS): 2011.

ACM Computer-Supported Cooperative Work (CSCW): 2008.

ACM Intelligent User Interfaces (IUI): 2008.

ACM International Conference on Multimodal Interfaces (ICMI): 2006.

ACM Workshop on Human Factors in Hypertext (HUMAN): 2020.

World Wide Web (WWW): 2012.

IFIP TC13 Human-Computer Interaction (INTERACT): 2011.

IEEE Virtual Reality: 2022.

IEEE Tabletops and Interactive Surfaces: 2008.

IEEE Wearable Computers (ISWC): 2005, 2008.

IEEE Pervasive Computing (Pervasive): 2007, 2012.

Graphics Interface (GI): 2006-2007, 2012, 2018.

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 on Computer-Human Interaction (SIGCHI)

 $Special\ interest\ group\ on\ Accessible\ Computing\ (SIGACCESS)$