Twenty-Five Years, Five Projects, and Five Reflections on Accessible Computing

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Abstract

I began working on accessible computing in 2001 at the start of my doctoral program by developing word prediction software for Palm PDA devices [4]. Today, 25 years later, accessibility has remained a core focus of my work and the work of my students in the field of human-computer interaction (HCI). In this keynote, I will share five projects that have significantly shaped my work, along with five reflections that continue to inform my perspective. My goal is to convey ideas from which I would have benefitted 25 years ago as a junior researcher starting in accessible computing. My five projects are *EdgeWrite* [9], *Slide Rule* [3], enhanced area cursors [1] and, in particular, the *Pointing Magnifier* [2], ability-based design [7, 8], and the epidemiological model of mobile app accessibility [5, 6]. My five reflections concern prioritizing depth, the power of participant-driven prototyping, the opportunities and obligations of field deployments, the importance of conceptual contributions, and the value of cross-disciplinary deep-dives. I conclude by addressing some of the promises and pitfalls of artificial intelligence for accessibility, drawing on these reflections to light our way.

CCS Concepts

• **Human-centered computing** → Accessibility; Accessibility technologies; Accessibility; Accessibility theory, concepts and paradigms.

Keywords

EdgeWrite, Slide Rule, Pointing Magnifier, ability-based design, epidemiology model, AI for accessibility

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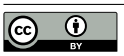
1 Biography

Jacob O. Wobbrock is a Professor of Information and, by courtesy, Computer Science & Engineering at the University of Washington (UW). His field is human-computer interaction (HCI) with a focus on input and interaction techniques, human performance with computing systems, mobile user interfaces, accessible computing, and human-centered artificial intelligence. He directs the Accessible Computing Experiences (ACE) Lab and co-founded and co-directed the UW Center for Research and Education on Accessible Technology and Experiences (CREATE). He also co-founded, chaired, and directed the Master of Human-Computer Interaction + Design (MHCI+D) degree program at UW. He and his doctoral students are part of the cross-campus Design: Use: Build: (DUB) Group, one of the largest and most vibrant HCI research and practice communities anywhere in the world.

For 25 years, Professor Wobbrock and his students have focused their research on accessible computing. Wobbrock has published 250 papers and 19 patents, which have been cited over 31,000 times. He has received 37 paper awards, including 7 best papers and 9 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 and 2025 SIGACCESS ASSETS Paper Impact Awards, which are 10-year lasting impact awards. He also received 10-year lasting impact awards from ACM ICMI 2022 and ACM UIST 2024 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 CHI Academy. In 2021, he was named an ACM Fellow "for contributions to human-computer interaction and accessible computing." He holds a B.S. with Honors in Symbolic Systems and an M.S. in Computer Science from Stanford University. He also holds a Ph.D. in Human-Computer Interaction from Carnegie Mellon University, where he received the 2006 School of Computer Science Distinguished Dissertation Award.

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advisor, Brad Myers, whose Pebbles project afforded me my first opportunity to work on accessible computing as I helped develop our *Remote Commander* software, published at ACM ASSETS 2002 [4].

References

[1] Leah Findlater, Alex Jansen, Kristen Shinohara, Morgan Dixon, Peter Kamb, Joshua Rakita, and Jacob O. Wobbrock. 2010. Enhanced area cursors: Reducing fine-pointing demands for people with motor impairments. In *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '10)*. New York, NY: ACM Press, 153–162. https://doi.org/10.1145/1866029.1866055

[2] Alex Jansen, Leah Findlater, and Jacob O. Wobbrock. 2011. From the lab to the world: Lessons from extending a pointing technique for real-world use. In *Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI '11)*. New York, NY: ACM Press, 1867–1872. https://doi.org/10.1145/1979742.1979888

[3] Shaun K. Kane, Jeffrey P. Bigham, and Jacob O. Wobbrock. 2008. Slide Rule: Making mobile touch screens accessible to blind people using multi-touch interaction techniques. In *Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '08)*. New York, NY: ACM Press, 73–80. https://doi.org/10.1145/1414471.1414487

[4] Brad A. Myers, Jacob O. Wobbrock, S. Yang, B. Yeung, J. Nichols, and R. Miller. 2002. Using handhelds to help people with motor impairments. In *Proceedings of the ACM SIGCAPH Conference on Assistive Technologies (ASSETS '02)*. New York, NY: ACM Press, 89–96. https://doi.org/10.1145/638249.638266

[5] Anne Spencer Ross, Xiaoyi Zhang, James Fogarty, and Jacob O. Wobbrock. 2017. Epidemiology as a framework for large-scale mobile application accessibility assessment. In *Proceedings of the ACM Conference on Computers and Accessibility (ASSETS '17)*. New York, NY: ACM Press, 2–11. https://doi.org/10.1145/3132525.3132547

[6] Anne Spencer Ross, Xiaoyi Zhang, James Fogarty, and Jacob O. Wobbrock. An epidemiology-inspired large-scale analysis of Android app accessibility. *ACM Transactions on Accessible Computing 13* (1). Article No. 4. https://doi.org/10.1145/3348797

[7] Jacob O. Wobbrock, Krzysztof Z. Gajos, Shaun K. Kane, and Gregg C. Vanderheiden. 2018. Ability-based design. *Communications of the ACM 61* (6), 62–71. https://doi.org/10.1145/3148051

[8] Jacob O. Wobbrock, Shaun K. Kane, Krzysztof Z. Gajos, Susumu Harada, and Jon Froehlich. 2011. Ability-based design: Concept, principles, and examples. *ACM Transactions on Accessible Computing 3* (3). Article No. 9. https://doi.org/10.1145/1952383.1952384

[9] Jacob O. Wobbrock, Brad A. Myers, and John A. Kembel. 2003. EdgeWrite: A stylus-based text entry method designed for high accuracy and stability of motion. In *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '03)*. New York, NY: ACM Press, 61–70. https://doi.org/10.1145/964696.964703