Leah Findlater   Curriculum Vitae

Assistant Professor, College of Information Studies & Institute for Advanced Computer Studies
Affiliate Assistant Professor, Department of Computer Science
University of Maryland
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Research Statement

The goal of my research in Human-Computer Interaction (HCI) is to *accommodate diverse user needs through personalized adaptation*, reducing information complexity, improving task efficiency, and facilitating accessibility for a range of education levels, and motor and cognitive abilities.

Education

Ph.D., Computer Science   *2004-2009*
University of British Columbia
Thesis: Supporting Feature Awareness and Improving Performance with Personalized Graphical User Interfaces
Advisor: Joanna McGrenere

M.Sc., Computer Science   *2002-2004*
University of British Columbia
Thesis: Comparing Static, Adaptable, and Adaptive Menus
Advisor: Joanna McGrenere

B.Sc. Honours, High Honours in Computer Science   *1997-2001*
University of Regina

Research Experience and Employment History

College of Information Studies, University of Maryland, College Park, MD   *Jan 2012 – present*
Assistant Professor

Institute for Advanced Computer Studies, University of Maryland, College Park, MD *May 2014 – present*
Assistant Professor

Department of Computer Science, University of Maryland, College Park, MD   *Feb 2012 – present*
Affiliate Assistant Professor

Information School, University of Washington, Seattle, WA   *Sep 2009 – Sep 2011*
NSERC Postdoctoral Fellow

Microsoft Research India, Bangalore, India
Research Intern   *Jan 2008 – Apr 2008*

IBM Toronto Software Lab, Markham, ON
Research Fellow   *Jan 2005 – Dec 2007*

University of Regina, Regina, SK
Research Assistant   *May – Aug 2000, Nov 2001 – May 2002*

China VentureTech Investment Corp., Software Engineering Co., Jinan, China
C++ Programmer   *Jun – Oct 2001*

Publications

Journal Articles

[j11] Lee, T., Smith, A., Seppi, K., Elmqvist, N., Boyd-Graber, J., and **Findlater, L.** 2017. The human touch: how non-expert users perceive, interpret, and fix topic models. *International Journal of Human-Computer Studies (IJHCS)*, 105(2017), 28-42.

[j10] Smith, A., Lee, T.Y., Poursabzi-Sangdeh, F., Boyd-Graber, J., Elmqvist, N., and **Findlater, L.** 2017. Evaluating visual representations for topic understanding and their effects on manually generated topic labels. *Transactions on the Association for Computional Linguistics (TACL)*, 5(2017), 1-15.

[j9] Stearns, L., Du, R., Oh, U., Jou, C., **Findlater, L.**, Ross, D.A., and Froehlich, J. 2016. Evaluating Haptic and Auditory Directional Guidance to Assist Blind People in Reading Printed Text Using Finger-Mounted Cameras. *ACM Transactions on Accessible Computing (TACCESS)*, 9(1), Article 1 (38 pages).

[j8] Oh, U. and **Findlater, L.** 2015. A Performance Comparison of On-Hand versus On-Phone Nonvisual Input by Blind and Sighted Users. *ACM Transactions on Accessible Computing (TACCESS)*, 7(4), Article 14 (20 pages).

[j7] Oh, U., Branham, S., **Findlater, L.**, Kane, S. 2015. Audio-Based Feedback Techniques for Teaching Touchscreen Gestures. *ACM Transactions on Accessible Computing (TACCESS)*, 7(3), Article 9 (29 pages).

[j6] Leung, R., **Findlater, L.**, McGrenere, J., Graf, P., Yang, J. 2010. Multi-layered interfaces to improve older adults' initial learnability of mobile applications. *ACM Transactions on Accessible Computing (TACCESS)*, 3(1):1-30.

[j5] **Findlater, L.**, McGrenere, J. 2010. Beyond performance: Feature awareness in personalized interfaces. *International Journal of Human-Computer Studies (IJHCS)*, 68(2010): 121-137.

[j4] **Findlater, L.**, Gajos, K.Z. 2009. Design space and evaluation challenges of adaptive graphical user interfaces. *AI Magazine*, 30(4): 68-73.

[j3] Murphy, G., Kersten, M., **Findlater, L.** 2006. How are Java software developers using the Eclipse IDE? *IEEE Software*, 23(4): 76-83.

[j2] Hamilton, H.J., Geng, L., **Findlater, L.**, Randall, D.J. 2006. Efficient spatio-temporal data mining with GenSpace Graphs. *Journal of Applied Logic*, 4(2): 192-214.

[j1] **Findlater, L.**, Hamilton, H.J. 2003. Iceberg cube algorithms: An empirical evaluation on synthetic and real data. *Intelligent Data Analysis*, 7(2):77-97.

Refereed Conference Papers[1]

[c49] **Findlater, L.**, Zhang, J., Froehlich, J.E., Moffatt, K. 2017. Differences in crowdsourced vs. lab-based mobile and desktop input performance data. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2017)*, 12 pages. To appear. (Acceptance: 25%)

[c48] **Findlater, L.**, Moffatt, K., Froehlich, J.E., Malu, M., and Zhang, J**.** 2017. Comparing touchscreen and mouse input performance by people with and without upper body motor impairments. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2017)*, 6 pages. To appear. (Acceptance: 25%)

[c47] Williams, K., Moffatt, K., Hong, J., Faroqi-Shah, Y., and **Findlater, L.** 2016. The cost of turning heads: a comparison of a head-worn display to a smartphone for supporting persons with aphasia in conversation. *Proceedings of ACM ASSETS 2016*, 111-120. (Acceptance: 25.3%)

[c46] Stearns, L., Oh, U., Cheng, B., **Findlater, L.**, Ross, D., Chellappa, R., and Froehlich, J. 2016. Localization of skin features on the hand and wrist from small image patches. *Proceedings of the International Conference on Pattern Recognition (ICPR 2016)*, 8 pages. To appear.

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[1] Premiere conference venues in human-computer interaction (e.g., CHI and UIST) are highly selective. Unlike in many fields, these venues publish archival papers and are comparable to or exceed many HCI journals in terms of visibility and impact. See: http://portal.acm.org/citation.cfm?id=1743546.1743569.

[c45] Poursabzi-Sangdeh F., Boyd-Graber, J., **Findlater., L.**, and Seppi, K. 2016. ALTO: active learning with topic overviews for speeding label induction and document labeling. *Proc. Association for Computational Linguistics (ACL 2016)*, 1158-1169. (Acceptance: 25.4%)

[c44] Profita, H., Albaghli, R., **Findlater, L.**, Jaeger, P., Kane, S. 2016. The AT Effect: How Disability Affects the Perceived Social Acceptability of Head-Mounted Display Use. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2016)*, 4484-4895. (Acceptance: 23%)

[c43] Malu, M. and **Findlater, L.**, 2016. Toward accessible health and fitness tracking for people with mobility impairments. *Proceedings of PervasiveHealth 2016*, 8 pages. (Acceptance: 35%)

[c42] Hong, J., Stearns, L., Cheng, T., Froehlich, J., Ross, D., and **Findlater, L.** 2016. Evaluating Angular Accuracy of Wrist-based Haptic Directional Guidance for Hand Movement. *Proceedings of GI 2016*, 6 pages. (Acceptance: 41%)

[c41] Ma, Y., Edge, D., **Findlater, L.**, Tan, H.Z. 2015. Haptic Keyclick Feedback Improves Typing Speed and Reduces Typing Errors on a Flat Keyboard. *Proc. IEEE World Haptics Conference (WHC 2015)*, 220-227.

[c40] Jain, D., **Findlater, L.**, Gilkeson, J., Holland, B., Duraiswami, R., Zotkin, D., Vogler, C. and Froehlich, J. 2015. Head-Mounted Display Visualizations to Support Sound Awareness for the Deaf and Hard of Hearing. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2015)*, 241-250. (Acceptance: 23.0%)

[c39] Williams, K., Moffatt, K., McCall, D. and **Findlater, L.** 2015. Designing Conversation Cues on a Head-Mounted Display to Support Persons With Aphasia. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2015)*, 231-240. (Acceptance: 23.0%)

[c38] Malu, M., **Findlater, L.** 2015. Personalized, Wearable Control of a Head-Mounted Display for Users With Upper Body Motor Impairments. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2015)*, 221-230. (Acceptance: 23.0%)

[c37] Naftali, M., **Findlater, L.** 2014. Accessibility in Context: Understanding the Truly Mobile Experience of Smartphone Users with Motor Impairments. *Proceedings of ASSETS 2014*, 209-216. (Acceptance: 28.4%)

[c36] Oh, U., **Findlater, L**. 2014. Design of and Subjective Response to On-body Input for People with Visual Impairments. *Proceedings of ASSETS 2014*, 115-122. (Acceptance: 28.4%)

[c35] Mohamed, N., Lesh, N., Conte, F., **Findlater, L.** 2014. Using ICT4CHW to Influence Decision Makers *Proc. 4th International Conference on Mobile Communication for Development (M4D)*, 5 pages.

[c34] Rust, K., Malu, M., Anthony, L., **Findlater, L.** 2014. Understanding child-defined gestures and children's mental models for touchscreen tabletop interaction. *Proc. Interaction Design and Children (IDC 2014)*, 201-204.

[c33] McNally, B., Guha, M.L., **Findlater, L.** 2014. Incorporating Peephole Interactions into Children's Second Language Learning Activities on Mobile Devices. *Proc. Interaction Design and Children (IDC 2014)*, 115-124. (Acceptance: 30.5%)

[c32] Ye, H., Malu, M., Oh, U., **Findlater, L.** 2014. Current and future mobile and wearable device use by people with visual impairments. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2014)*. To appear. (Acceptance: 22.8%)

[c31] Oh, U., Kane, S., **Findlater, L.** 2013. Follow that sound: using sonification and corrective verbal feedback to teach touchscreen gestures. *Proceedings of ASSETS 2013*, Article 13. (Acceptance: 28.6%)

[c30] Li, F.C.Y., **Findlater, L.**, Truong, K.N. 2013. Effects of hand drift while typing on touchscreens. *Proceedings of GI 2013*, 95-99. (Acceptance: 38.0%)

[c29] Anthony, L., Kim, Y., and **Findlater, L.** 2013. Analyzing user-generated YouTube videos to understand touchscreen use by people with motor impairments. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2013)*, 1223-1232. (Acceptance: 20.0%; **BEST PAPER WINNER – TOP 1%**)

[c28]   Oh, U. and **Findlater, L**. 2013. The challenges and potential of end-user gesture customization. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2013)*, 1129-1138. (Acceptance: 20.0%)

[c27]   **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. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2013)*, 343-346. (Acceptance: 20.0%; HONORABLE MENTION – TOP 5%)

[c26]   **Findlater, L.**, Wobbrock, J.O. 2012. Personalized input: improving ten-finger touchscreen typing through automatic adaptation. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2012)*, 815-824. (Acceptance: 23.0%)

[c25]   Goel, M., **Findlater, L.**, Wobbrock, J.O. 2012. WalkType: Using accelerometer data to accommodate situational impairments in mobile touch screen text entry. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2012)*, 2687-2696. (Acceptance: 23.0%; HONORABLE MENTION – TOP 5%)

[c24]   Froehlich, J., **Findlater, L.**, Ostergren, M. Ramanathan, S., Peterson, J., Wragg, I., Larson, E., Fu, F., Bai, M., Patel, S., Landay, J. 2012. The design and evaluation of prototype eco-feedback displays for fixture-level water usage data. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2012)*, 2367-2376. (Acceptance: 23.0%; HONORABLE MENTION – TOP 5%)

[c23]   **Findlater, L.**, Lee, B., Wobbrock, J.O. 2012. Beyond QWERTY: augmenting touch-screen keyboards with multi-touch gestures for non-alphanumeric input. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2012)*, 2679-2682. (Acceptance: 23.0%; HONORABLE MENTION – TOP 5%)

[c22]   DeRenzi, B., **Findlater, L.**, Payne, J., Birnbaum, B., Mangilima, J., Parikh, T., Borriello, G., Lesh, N. 2012. Improving community health worker performance through automated SMS. *Proc. ACM/IEEE International Conference on Information and Communication Technologies and Development (ICTD 2012),* 25-34. (Acceptance: 19.1%)

[c21]   **Findlater, L.**, Wobbrock, J.O., Wigdor, D. 2011. Typing on flat glass: examining ten-finger expert typing patterns on touch surfaces*. Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2011)*, 2453-2462. (Acceptance: 26.0%; HONORABLE MENTION – TOP 5%)

[c20]   Wobbrock, J.O., **Findlater, L.**, Gergle, D., Higgins, J.J. 2011. The aligned rank transform for nonparametric factorial analyses using only ANOVA procedures. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2011)*, 143-146. (Acceptance: 26%; HONORABLE MENTION – TOP 5%)

[c19]   Brunskill, E., Garg, S., Tseng, C., Pal, J., **Findlater, L.** 2010. Evaluating an adaptive multi-user educational tool for low-resource regions. *Proc. ACM/IEEE International Conference on Information and Communication Technologies and Development (ICTD 2010)*, 11 pages. (Acceptance to oral presentation track: 13.5%)

[c18]   **Findlater, L.**, Jansen, A., Shinohara, K., Dixon, M., Kamb, P., Rakita, J., Wobbrock, J.O. 2010. Enhanced area cursors: reducing fine pointing demands for people with motor impairments. *Proc. ACM Symposium on User Interface Software and Technology (UIST 2010)*, ACM Press, 153-162. (Acceptance: 18.4%)

[c17]   Froehlich, J., **Findlater, L.**, Landay, J. 2010. The design of eco-feedback technology. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI 2010)*, ACM Press, 1999-2008. (Acceptance: 22%; BEST PAPER WINNER – TOP 1%)

[c16]   Tseng, C., Garg, S., Underwood, H., **Findlater, L.**, Anderson, R., Pal, J. 2010. Examining emergent dominance patterns in multiple input based educational systems. *Proc. India HCI*, 4 pages.

[c15]   Shoemaker, G., **Findlater, L.**, Dawson, J., Booth, K. 2009. Mid-air text input techniques for very large wall displays. *Proc. Graphics Interface (GI 2009)*, 231-238. (Acceptance: 36%)

[c14]   Singh, G., **Findlater, L.**, Balakrishnan, R., Toyama, K., Helmer, S., Gandhi, R. 2009. Numeric paper forms for NGOs. *Proc. ACM/IEEE International Conference on Information and Communication Technologies and Development (ICTD 2009)*, 406-416. (Acceptance: 18%)

[c13]   **Findlater, L.**, Moffatt, K., McGrenere, J., Dawson, J. 2009. Ephemeral adaptation: The use of gradual onset to improve menu selection performance. *Proc. ACM Conference on Human Factors in Computing Systems (CHI 2009)*, ACM Press, 1655-1664. (Acceptance: 24.5%; BEST PAPER WINNER – TOP 1%)

[c12]   **Findlater, L.**, Balakrishnan, R., Toyama, K. 2009. Comparing semiliterate and illiterate users' ability to transition from audio+text to text-only interaction. *Proc. ACM Conference on Human Factors in Computing Systems (CHI 2009)*, ACM Press, 1751-1760. (Acceptance: 24.5%)

[c11]   **Findlater, L.**, McGrenere, J. 2008. Impact of screen size on performance, awareness, and user satisfaction with adaptive graphical user interfaces. *Proc. ACM Conference on Human Factors in Computing Systems (CHI 2008)*, ACM Press, 1247-1256. (Acceptance: 22%)

[c10]   Lanir, J., Booth, K., **Findlater, L.** 2008. Observing presenters' use of visual aids to inform the design of classroom presentation software. *Proc. ACM Conference on Human Factors in Computing Systems (CHI 2008)*, ACM Press, 695-704. (Acceptance: 22%)

[c9]   **Findlater, L.**, McGrenere, J., Modjeska, D. 2008. Evaluation of a role-based approach for customizing a complex development environment. *Proc. ACM Conference on Human Factors in Computing Systems (CHI 2008)*, ACM Press, 1267-1270. (Acceptance: 18%)

[c8]   **Findlater, L.**, McGrenere, J. 2007. Evaluating reduced-functionality interfaces according to feature findability and awareness. *Proc. IFIP Interact 2007*, Springer, 592-605. (Acceptance: 33%)

[c7]   Tee, K., Moffatt, K., **Findlater, L.**, MacGregor, E., McGrenere, J., Purves, B., Fels, S. 2005. A visual recipe book for persons with language impairments. *Proc. ACM Conference on Human Factors in Computing Systems (CHI 2005)*, ACM Press, 501-510. (Acceptance: 25%)

[c6]   **Findlater, L.**, McGrenere, J. 2004. A comparison of static, adaptive, and adaptable Menus. *Proc. ACM Conference on Human Factors in Computing Systems (CHI 2004)*, ACM Press, 89-96. (Acceptance: 16%)

[c5]   McGrenere, J., Davies, R., **Findlater, L.**, Graf, P., Klawe, M., Moffatt, K., Purves, B., Yang, S. 2003. Insights from the Aphasia Project: Designing technology for and with people who have aphasia. *Proc. ACM Conference on Universal Usability (CUU 2003)*, ACM Press, 112-118.

[c4]   Hamilton, H.J., Geng, L., **Findlater, L.**, Randall, D.J. 2003. Spatio-temporal data mining with expected distribution domain generalization graphs. *Proc. 10th Symposium on Temporal Representation and Reasoning / International Conference on Temporal Logic (TIME-ICTL 2003)*, IEEE CS Press, 181-191.

[c3]   **Findlater, L.**, Hamilton, H.J. 2002. Iceberg-cube algorithms: Experiments on synthetic and real databases. *Proc. IASTED International Conference on Artificial Intelligence and Soft Computing (ASC 2002)*, 90-95.

[c2]   Hamilton, H.J**., Findlater, L.** 2002. Looking backward, forward, and all around: Temporal, spatial, and spatio-temporal data mining. *Proc. 15th International Florida Artificial Intelligence Research Society Conference (FLAIRS 2002)*, 481-485.

[c1]   **Findlater, L.**, Hamilton, H.J. 2001. An empirical comparison of methods for Iceberg-CUBE construction, *Proc. 14th International Florida Artificial Intelligence Research Society Conference (FLAIRS 2001)*, AAAI Press, 244-248.

Invited Magazine Articles

[m2]   **Findlater, L.**, Wobbrock, J.O. 2012. From plastic to pixels: In search of touch-typing touchscreen keyboards. *interactions*, 19(3), May + June 2012, 44-49.

[m1]   Gajos, K., Hurst, A., and **Findlater, L.** 2012. Personalized dynamic accessibility. *interactions*, 19(2), March + April 2012, 69-73.

Book Chapters

[b1]   McGrenere, J., Bunt, A., **Findlater, L.**, Moffatt K. 2010. Generalization in human-computer interaction research. In M. Banich and D. Caccamise (Eds.), Generalization of Knowledge: Multidisciplinary Perspectives. Taylor & Francis. 277-295.

Doctoral Consortia

[d1]   **Findlater, L.** 2007. Design and evaluation of reduced-functionality interfaces. *Extended Abstracts of ACM Conference on Human Factors in Computing Systems*, ACM Press, 1637-1640. [CHI Doctoral Consortium paper] (Acceptance: 16%)

Refereed Workshop Papers

[w9]   Smith, A., Lee, T., Poursabzi-Sangdeh, F., Boyd-Graber, J., Elmqvist, N., Seppi, K., and **Findlater, L.** 2016 Human-Centered and Interactive: Expanding the Impact of Topic Models. *Proc. Human-Centered Machine Learning Workshop at CHI 2016*, 6 pages.

[w8]   Chuang, J., Wilkerson, J.D., Weiss, R., Tingley, D., Steward, B.M., Roberts, M.E., Poursabzi-Sangdeh, F., Gimmer, J., **Findlater, L.**, Boyd-Graber, J., Heer, J. 2014. Computer-Assisted Content Analysis: Topic Models for Exploring Multiple Subjective Interpretations. *NIPS Workshop on Human-Propelled Machine Learning*.

[w7]   Stearns, L., Du, R., Oh, U., Wang, Y., Chellappa, R., **Findlater, L.**, Froehlich, J.E. 2014. The Design and Preliminary Evaluation of a Finger-Mounted Camera and Feedback System to Enable Reading of Printed Text for the Blind. *Proceedings of Computer Vision-ECCV 2014 Workshops*, 615-631.

[w6]   Smith, A., Chuang, J., Hu, Y., Boyd-Graber, J., **Findlater, L.** 2014. Concurrent Visualization of Relationships between Words and Topics in Topic Models. *Proceedings of the Workshop on Interactive Language Learning, Visualization, and Interfaces*, 79-82.

[w5]   Kristensson, P.O., Brewster, S., Clawson, J., Dunlop, M., **Findlater, L.**, Isokoski, P., Martin, B., Oulasvirta, A., Vertanen, K., and Waller, A. 2013. Grand challenges in text entry. *Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI 2013)*, 3315-3318.

[w4]   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 2011)*, 41-44.

[w3]   **Findlater, L.**, McGrenere, J. 2008. Comprehensive user evaluation of adaptive graphical user interfaces. Workshop on Usable Artificial Intelligence, ACM Conference on Human Factors in Computing (CHI 2008).

[w2]   **Findlater, L.**, Hawkins, J., McGrenere, J., Modjeska, D. 2007. Experiences in conducting an online field study of an open-source, extensible software platform. Workshop on Technology has escaped from the zoo: Studying usability in the wild, IFIP Interact 2007.

[w1]   Moffatt, K., **Findlater, L.**, Allen, M. 2006. Generalizability in research with cognitively impaired individuals. Workshop on Designing for people with cognitive impairments, ACM Conference on Human Factors in Computing (CHI 2006).

Posters

[p11]   **Findlater, L.**, Stearns, L., Du, R., Oh, U., Ross, D., Chellappa, R., Froehlich, J.E. 2015. Supporting everyday activities for persons with visual impairments through computer vision-augmented touch. Proceedings of ACM SIGACCESS Conference on Computers and Accessibility (ASSETS'15), 383-384.

[p10]   Malu, M., **Findlater, L.** 2014. "OK Glass?" A Preliminary Exploration of Google Glass for Persons with Upper Body Motor Impairments. Proceedings of ACM SIGACCESS Conference on Computers and Accessibility (ASSETS'14), 267-268.

[p9]   Kim, Y., Sutreja, N., Froehlich, J., **Findlater, L.** 2013. Surveying the accessibility of mobile touchscreen games for persons with motor impairments: a preliminary analysis. Proceedings of ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2013). Article No. 68.

[p8]   DeRenzi, B., **Findlater, L.**, Birnbaum, B., Mangilima, J., Mshana, G., Parikh, T., Borriello, G., and Lesh, N. 2011. Semi-automated workforce performance improvement via SMS. mHealth Summit, December 5-7, 2011. Washington D.C.

[p7] 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 EA 2011), 1867-1872.

[p6] Underwood, H., Garg, S., Tseng, C., **Findlater, L.**, Anderson, R., Pal, J. 2010. Exploring collaborative learning methods for multiplayer educational games in low resource environments. Computer Supported Cooperative Work (CSCW 2010).

[p5] **Findlater, L.**, McGrenere, J. 2007. Issues in designing reduced-functionality interfaces. IBM CASCON 2007.

[p4] **Findlater, L.**, McGrenere, J. 2006. Findability and discoverability in the user interface. IBM CASCON 2006.

[p3] **Findlater, L.**, McGrenere J. 2005. Exploring the potential of role-based user interface customization. IBM CASCON 2005.

[p2] Lang, D., **Findlater, L.**, Shaver, M. 2003. CoolPaint: Direct interaction painting. User Interface Software and Technology (UIST 2003).

[p1] Moffatt, K**., Davies, R.**, **Findlater, L.**, McGrenere, J. 2003. Participatory design with aphasic individuals. Graphics Interface (GI 2003).

Theses

[t2] **Findlater, L.** 2009. Supporting Feature Awareness and Improving Performance with Personalized Graphical User Interfaces. PhD dissertation, University of British Columbia.

[t1] **Findlater, L**. 2004. Comparing Static, Adaptable, and Adaptive Menus. Master's thesis, University of British Columbia.

Technical Reports

[r3] Foss, E., Guha, M., Franklin, L., Clegg, T., **Findlater, L.**, Yip, J. 2014. Designing Technology with Students with Learning Differences: Implementing Modified Cooperative Inquiry. Human-Computer Interaction Lab, University of Maryland, HCIL-2014-03.

[r2] Malik, S., **Findlater, L.** 2013. Punctuation Input on Touchscreen Keyboards: Analyzing Frequency of Use and Mode-switching Costs. Human-Computer Interaction Lab, University of Maryland, HCIL-2013-17.

[r1] Dawson, J., McGrenere, J., Munzner, T., Moffatt, K., and **Findlater, L.** 2011. Ephemeral Paths: Gradual Fade-In as a Visual Cue for Subgraph Highlighting, 2011, Technical Report TR-2011-10, Department of Computer Science, University of British Columbia.

Patent

[a1] Goel, M., Wobbrock, J.O., Patel, S.N., **Findlater, L**. 2015. Use of hand posture to improve text entry. US Patent #20150317076.

Invited Talks

Findlater, L. 2016. New directions in accessible wearable computing. Disability Summit, University of Maryland, College Park, MD, April 8, 2016.

Findlater, L. 2015. Transforming accessibility through mobile and wearable technologies. Department of Computer Science, University of Illinois, Urbana-Champaign, IL, October 20, 2015.

Findlater, L. 2015. Transforming accessibility through wearable augmented reality. HCIL Symposium, University of Maryland, College Park, MD, May 28, 2015

Findlater, L. 2014. Inclusive design research at the University of Maryland. United Cerebral Palsy on the Potomac. Lanham, MD, June 7, 2014.

Findlater, L. and Froehlich J. 2013. Go mobile! Enabling accessible mobile experiences. Enabled By Design-a-thon, Washington, DC, November 8, 2013.

Findlater, L. and Jung, J. 2013. Finding your dream job. Grace Hopper Celebration, Minnesota, MN, October 2, 2013.

Findlater, L. 2013. Scaling up data collection in research with specific populations. Digital Societies and Social Technologies Summer Institute, College Park, MD, July 30, 2013.

Findlater, L. 2013. Improving touchscreen interaction through personalization. Google Tech Talk, Google, Mountain View, CA, June 28, 2013.

Findlater, L., and Froehlich J. 2013. Accessibility research at Maryland's HCIL. Life Labs, United Cerebral Palsy, Washington, DC, June 4, 2013.

Findlater, L. 2013. Touchscreen accessibility: supporting individual motor abilities. HCIL Symposium, University of Maryland, College Park, MD, May 22, 2013.

Findlater, L. 2013. Supporting individual differences in motor ability through design. Physical Therapy and Rehabilitation Science, University of Maryland, Baltimore, April 12, 2013.

Findlater, L. 2013. Improving touchscreen accessibility and interaction through personalization. International School of Information Management, Mysore, India, March 20, 2013.

Findlater, L. 2012. Personalizing touchscreen interaction. Interaction Lab, University of Saskatchewan, Saskatoon, SK, December 21, 2012.

Findlater, L. 2012. Towards touch-typing on touchscreen keyboards. Computer Science Seminar, Virginia Tech Northern Virginia Center, Falls Church, VA, November 9, 2012.

Findlater, L. 2012. Towards touch-typing on touchscreen keyboards. Human-Centered Computing, University of Maryland Baltimore County, MD, June 5, 2012.

Findlater, L. 2012. Towards touch-typing on touchscreen keyboards. HCIL Symposium, University of Maryland, College Park, MD, May 22, 2012.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. School of Interactive Computing, Georgia Institute of Technology, April 14, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. AT&T Labs Research, Florham Park, NJ, April 11, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. Google Research, Mountain View, CA, April 8, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. DUB Seminar, University of Washington, March 30, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. Electrical and Computer Engineering, Purdue University, West Lafayette, IN, March 24, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. Industrial and Operations Engineering, University of Michigan, Ann Arbor, MI, March 17, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. B. Thomas Golisano College of Computing and Information Sciences, Rochester Institute of Technology, Rochester, NY, March 14, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. Department of Computer Science, University of Rochester, Rochester, NY, March 11, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. Computer Sciences Department, University of Wisconsin-Madison, Madison, WI, March 7, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. Department of Computer Science, Columbia University, New York, NY, March 2, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. School of Electrical Engineering and Computer Science, Oregon State University, Corvallis, OR, February 28, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. College of Information Studies, University of Maryland, College Park, MD, February 23, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. School of Information, University of Michigan, Ann Arbor, MI, February 21, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. School of Information, University of Texas-Austin, Austin, TX, February 15, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. Department of Computer Science and Engineering, The Ohio State University, Columbus, OH, February 8, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. School of Information Studies, McGill University, Montreal, QC, February 3, 2011.

Findlater, L. 2011. Personalized adaptation to accommodate diverse user needs. School of Interactive Arts + Technology Research Colloquium, SFU, Surrey, BC, January 26, 2011.

Findlater, L. 2010. Multi-touch interaction for tabletop computing. Summer Academy for Advancing Deaf & Hard of Hearing in Computing, University of Washington, Seattle, WA, August 4, 2010.

Findlater, L. 2008. Adaptive personalization to manage UI complexity: Challenges and potential. HP Labs India, Bangalore, India, March 27, 2008.

Findlater, L. 2005. Exploring the effectiveness of role-based user interface filtering. IBM Toronto Software Lab, Markham, ON, August 11, 2005.

Findlater, L., Moffatt, K. 2003. The Aphasia Project. Dagstuhl Seminar 03481 on eAccessibility: new Devices, new Technologies, and new Challenges in the Information Society. Dagstuhl, Germany, November 23-27, 2003.

Awards and Honors

NSF CAREER Award, 2014. Recognizes "junior faculty who exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and research."

Best Paper Award, ACM Conference on Human Factors in Computing Systems (CHI), 2013. Anthony, Kim, Findlater: "Analyzing user-generated YouTube videos to understand touchscreen use by people with motor impairments." (Top 1% of 1963 submissions)

Honorable Mention, ACM Conference on Human Factors in Computing Systems (CHI), 2013. Findlater, Froehlich, Fattal, Wobbrock, Dastyar: "Age-related differences in performance with touchscreens compared to traditional mouse input." (Top 5% of 1963 submissions)

Honorable Mention, ACM Conference on Human Factors in Computing Systems (CHI), 2012. Goel, Findlater, Wobbrock: "WalkType: Using accelerometer data to accommodate situational impairments in mobile touch screen text entry." (Top 5% of 1577 submissions.)

Honorable Mention, ACM Conference on Human Factors in Computing Systems (CHI), 2012. Froehlich, Findlater, Ostergren, Ramanathan, Peterson, Wragg, Larson, Fu, Bai, Patel, Landay: "The design and evaluation of prototype eco-feedback displays for fixture-level water usage data." (Top 5% of 1577 submissions.)

Honorable Mention, ACM Conference on Human Factors in Computing Systems (CHI), 2012. Findlater, Lee, Wobbrock: "Beyond QWERTY: augmenting touch-screen keyboards with multi-touch gestures for non-alphanumeric input." (Top 5% of 1577 submissions.)

Honorable Mention, ACM Conference on Human Factors in Computing Systems (CHI), 2011. Findlater, Wobbrock, Wigdor: "Typing on flat glass: examining ten-finger expert typing patterns on touch surfaces." (Top 5% of 1540 submissions.)

Honorable Mention, ACM Conference on Human Factors in Computing Systems (CHI), 2011. Wobbrock, Findlater, Gergle, Higgins: "The aligned rank transform for nonparametric factorial analyses using only ANOVA procedures." (Top 5% of 1540 submissions.)

Best Paper Award, ACM Conference on Human Factors in Computing Systems (CHI), 2010. Froehlich, Findlater, Landay: "The design of eco-feedback technology." (Top 1% of 1346 submissions.)

Best Paper Award, ACM Conference on Human Factors in Computing Systems (CHI), 2009. Findlater, Moffatt, McGrenere, Dawson: "Ephemeral adaptation: The use of gradual onset to improve menu selection performance." (Top 1% of 1130 submissions.)

Other Awards:

- NSERC Postdoctoral Fellowship ($80,000 over 2 years), 2009-2011
- Li Tze Fong Scholarship ($18,000), 2007-2008
- ACM CHI 2007 Doctoral Consortium Travel Grant ($1200), 2007
- IBM Centers for Advanced Studies Fellowship ($76,000 over 3 years), 2005-2007
- NSERC Postgraduate Scholarship D (Ph.D.) ($42,000 over 2 years), 2004-2006
- Departmental Teaching Assistant Award, 2005
- NSERC Postgraduate Scholarship A (M.Sc.) ($34,600 over 2 years), 2002-2004
- British Columbia Advanced Systems Institute Scholarship ($5000), 2002
- President's Medal for Most Outstanding Graduate, University of Regina, 2001
- NSERC Undergraduate Student Research Award ($4500), 2000

Grants

Google Faculty Research Award. Wearable Sound Awareness Support for the Deaf and Hard of Hearing. Role: PI (share: 50%), 2017 – 2018, $90,000.

National Science Foundation. CAREER Award: Scaling Up Mobile Accessibility Through Touchscreen Personalization (IIS-1350438). Role: PI (share: 100%), 2014 – 2019, $549,715.

Department of Defense (US Army Medical Research and Materiel Command). HandSight: Supporting Everyday Activities Through Touch-Vision. Role: Co-PI (share: 33%), 2014 – 2017, $992,821.

Google Faculty Research Award. Supporting Communication for Persons with Aphasia via Contextual Prompting and Conversation Capture on a Heads-up Display. Role: PI (share: 70%), 2014 – 2015, $68,300.

National Science Foundation. III: Medium: Collaborative: Research Closing the User-Model Loop for Understanding Topics in Large Document Collections (IIS-1409287). Role: Co-PI (share: 27%), 2014 – 2018, $1,200,000.

Nokia University Cooperation Award. On-body Input to Improve Mobile Accessibility for Blind and Low Vision Users. Role: PI (share: 100%), 2013 – 2014, $29,090.

Google Faculty Research Award. Personalized Input for Touchscreen Interaction. Role: PI (share: 100%), 2011 – 2012, $53,000.

Selected Media Coverage

Nov 10, 2016   Fingertip camera reads to the blind, PC Magazine
 Nov 9, 2016   Tiny fingertip camera helps blind people read without braille, New Scientist
Mar 21, 2013   Mysore College Ties Up with US Institute, Times of India
Aug 10, 2012   iOn the Future, UW TV
 Jun 7, 2012   Touchscreens Learn Your Habits to Help You Type Faster, New Scientist
Oct 20, 2011   Better Typing While Walking, and Other Cool Stuff from UW, GeekWire
Apr 17, 2011   A Better Computer Mouse Cursor for the Disabled, Voice of America
Apr 16, 2011   Improved Mouse Control for Users with Disabilities, PC World
Apr 10, 2011   Free Software Helps Disabled Use Mouse, Slashdot

Apr 10, 2011	Researchers Tackle Mouse Control from a Different Angle, Gizmag
Apr 10, 2011	'Angle Mouse' Improves Motor-Impaired Pointing Performance: Free Computer Software Easier for People with Disabilities, Medical News Today
Dec 11, 2009	'One Keypad Per Child' Lets Schoolchildren Share Screen to Learn Math, Communications of the ACM

Teaching and Advising

University of Maryland

Teaching
INST 704 (previously 728Z) Inclusive Design in HCI (Spring 2016, Spring 2017)
INST 888 Doctoral Seminar (Fall 2014, Fall 2015)
INST 631 Fundamentals of Human-Computer Interaction (Spring 2014)
INST 728L / CMSC 838L Readings Seminar in HCI – Topic: Inclusive Design (Fall 2013)
INST 630 Introduction to Programming for the Information Professional (Fall 2012, Fall 2013)
INST 776 HCI Masters Capstone (Spring 2013)
CMSC 838B The Future of Human-Computer Interaction (Spring 2012)
INFM718B / LBSC 790 Building the Human-Computer Interface (Spring 2012)

Graduate Student Research Advising
Alison Smith, Ph.D. Computer Science (2015-present)
Jonggi Hong, Ph.D. Computer Science (2014-present)
Meethu Malu, Ph.D. Computer Science (2013-present)
Uran Oh, Ph.D. Computer Science (2012-2016)
Kristin Williams, M.S. Human-Computer Interaction (thesis) (2013-2015)
Dhruv Jain, visiting student (summer research) (2014)
Maia Naftali, M.S. Human-Computer Interaction (thesis) (2013-2014)
Karen Rust, M.S. Human-Computer Interaction (non-thesis research) (2013-2014)
Brenna McNally, M.S. Human-Computer Interaction (non-thesis research) (2012-2014)
Yoojin Kim, M.S. Human-Computer Interaction (non-thesis research) (2012-2013)
Kays Fattal, Master of Information Management (non-thesis research) (2012)

University of Washington

Undergraduate Research Advising
Ben Lee, B.S. Applied and Computational Math Sciences (2011)
Alex Jansen, B.S. Informatics (2009-2010)
Joshua Rakita, B.S. Informatics (2010)
Sunil Garg, B.S. Computer Science (2009-2010)
Clint Tseng, B.S. Computer Science (2009-2010)
Heather Underwood, B.S. Computer Science (2009)

University of British Columbia

Teaching Assistant and Lab Instructor
CPSC 344 Introduction to Human-Computer Interaction Methods (Summer 2006)
CPSC 444 Advanced Methods for Human-Computer Interaction (Winter 2004, Winter 2005)
CPSC 101 Connecting with Computer Science (Fall 2003, Fall 2004)

Undergraduate Research Advising
Jessica Dawson, B.A. Computer Science, UBC (2008-2010)
Rebecca Hunt-Newbury, B.Sc. Biology and Computer Science, UBC (2006)

University of Regina

Lab Instructor
CS 100 Introduction to Computer Science (four semesters, 1999-2001)

Professional Service

Journal Editorial Boards

ACM Transactions on Accessible Computing (TACCESS), Editorial Board: 2015 - present
International Journal of Human-Computer Studies (Elsevier), Associate Editor: 2011 - 2014

Senior Conference Leadership

ACM ASSETS Technical Program Co-Chair (2017)
ACM CHI Subcommittee Co-Chair (2015, 2016)
ACM ASSETS Mentoring Chair (2016)

Conference Program Committees

ACM CHI Associate Chair (2011, 2013)
ACM ASSETS (2012 – 2016)
Grace Hopper Celebration (2014)
IDC (2014)
IUI (2009)

Workshop Organizer

Grand Challenges in Text Entry. Workshop at ACM CHI 2013.
Dynamic Accessibility: Accommodating Differences in Ability and Mobility. Workshop at ACM CHI 2011.

Conference Reviewing

ACM CHI (2004-2016)
ACM UIST (2004, 2010, 2012, 2015)
ACM CSCW (2014)
Interaction Design and Children (2014)
NordiCHI (2014)
ACM MobileHCI (2013)
ACM Tabletop (2010)
IUI (2008-2009)
GI (2005, 2008-2009, 2012)
ACM ASSETS Student Research Competition (2011)

Journal Reviewing

ACM Transactions on Accessible Computing (TACCESS) (2012, 2014 – 2016)
ACM Transactions on Interactive Intelligent Systems (TiiS) (2012, 2016)
Human-Computer Interaction (2016)
Communications of the ACM (2015)
Behaviour and Information Technology (2014 – 2015)
ACM Transactions on Computer Human Interaction (TOCHI) (2009, 2010, 2011, 2014)
User Modeling and User Adapted Interaction (2009)
International Journal of Human Computer Studies (2009, 2011)
Advances in Human-Computer Interaction (2009)

Internal Service

Associate Director, HCI Master's Program Committee, College of Information Studies, UMD (2016 – present)
HCIC Governing Board Member for the University of Maryland (2013 – present)
Member, HCI Master's Program Committee, College of Information Studies, UMD (2012 – 2015)
Member, Diversity Committee, College of Information Studies, UMD (2015 – 2016)
Member, HCI Master's Program Committee, College of Information Studies, UMD (2012 – 2015)
Member, Faculty Recruiting Committee, College of Information Studies, UMD (2012 – 2014)
Member, Instructor Recruiting Committee, Dept. of Computer Science, UBC (2006 – 2007)
Member, Graduate Admissions Committee, Dept. of Computer Science, UBC (2005 – 2006)

Member, Administrative Head Recruiting Committee, Dept. of Computer Science, UBC (2003 – 2004)

Other
Judge for World Cerebral Palsy Day Invent It Competition (2014)
Student Research Competition Judge, ACM ASSETS (2009)
Student Volunteer, ACM CUU (2002)