Hannah J. Miller Hillberg

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EDUCATION

University of Minnesota – Twin Cities   *September 2013 – August 2018*
Doctor of Philosophy, Computer Science and Engineering
- ♦ Specialty: Human-Computer Interaction, GroupLens Research
- ♦ Advisors: Dr. Loren Terveen and Dr. Brent Hecht

University of Wisconsin – Eau Claire   *September 2009 – May 2013*
Bachelor of Science Degree, Summa Cum Laude
- ♦ Major: Computer Science, Software Engineering Emphasis
- ♦ Minors: Mathematics and Business Administration

TEACHING EXPERIENCE

Assistant Professor   *Fall 2018 – Present*
University of Wisconsin – Oshkosh
- CS 125: World Wide Web Site Development
- CS 221: Object-Oriented Design and Programming I
- CS 247: Introduction to Usability
- CS 262: Object-Oriented Design and Programming II
- CS 346: Web Software Development
- CS 361: Database Systems
- CS 480: Special Topics in Computer Science (User Interface Design and Evaluation)

Preparing Future Faculty Experience   *Spring 2017*
University of Minnesota – Twin Cities
- GRAD 8101: Teaching in Higher Education
  - ♦ Participated in course designed to help me become a stronger, more reflective teacher via reading, discussion, observation and practice of educational theory and process
  - ♦ Designed a student-centered learning syllabus with a rationale that demonstrates the relationship between course objectives, content, assessments, and methodology

Graduate Teaching Assistant   *Fall 2014*
University of Minnesota – Twin Cities
- CSCI 5115: User Interface Design, Implementation and Development
  - ♦ Guided 10 groups of 5 students through course-long project via bi-weekly deliverables and feedback meetings
  - ♦ Prepared and delivered mobile application development lecture to both sections of class

Teaching Assistant   *Spring 2010 – Spring 2013*
University of Wisconsin – Eau Claire
    CS 145: Introduction to Object-Oriented Programming
    CS 245: Advanced Programming and Data Structures
    CS 255: Algorithms and Discrete Structures
    MATH 214: Calculus I
    MATH 215: Calculus II
- Helped students in introductory computer science courses with labs and assignments
- Graded students' assignments for computer science courses, calculus I, and calculus II

RESEARCH STATEMENT

As a *Human-Computer Interaction* and *Social Computing* researcher, I am passionate about studying how we can design technology to *improve the quality of life for people*.

PUBLICATIONS

Levonian, Z., Dow, M., Erikson, D., Ghosh, S., **Miller Hillberg, H.**, Narayanan, S., Terveen, L., Yarosh, L. (2020) Patterns of Patient and Caregiver Mutual Support Connections in an Online Health Community. *Proceedings of the ACM on Human-Computer Interaction (CSCW 2020)*. New York, NY: ACM Press.

Miller Hillberg, H., Levonian, Z., Kluver, D., Terveen, L., and Hecht, B. (2018) What I See is What You Don't Get: The Effects of (Not) Seeing Emoji Rendering Differences across Platforms. *Proceedings of the ACM on Human-Computer Interaction (CSCW 2018)*. New York, NY: ACM Press.

Miller, H., Kluver, D., Thebault-Spieker, J., Terveen, L., and Hecht, B. (2017) Understanding Emoji Ambiguity in Context: The Role of Text in Emoji-Related Miscommunication. *Proceedings of the International AAAI Conference on Web and Social Media (ICWSM 2017)*. Menlo Park, CA: AAAI Press.

Miller, H., Thebault-Spieker, J., Chang, S., Johnson, I., Terveen, L., and Hecht, B. (2016) "Blissfully Happy" or "Ready to Fight": Varying Interpretations of Emoji. *Proceedings of the International AAAI Conference on Web and Social Media (ICWSM 2016)*. Menlo Park, CA: AAAI Press.

Buhr, H., Hoepner, J., **Miller, H.**, and Johnson, C. (2016) AphasiaWeb: development and evaluation of an aphasia-friendly social networking application. *Aphasiology*: 1–22. 2015 Impact Factor: 1.139

Miller, H., Chang, S., and Terveen, L. (2015) "I LOVE THIS SITE!" vs. "It's a Little Girly": Perceptions of and Initial User Experience with Pinterest. *Proceedings of the ACM*

Conference on Computer Supported Cooperative Work & Social Computing (CSCW 2015), pp. 1728–1740. New York: ACM Press.

Knights, D., Ward, T., McKinlay, C., **Miller, H.**, Gonzalez, A., McDonald, D., and Knight, R. (2014) Rethinking "Enterotypes." *Cell Host & Microbe* 16, 4: 433–437. 2015 Impact Factor: 12.552

Miller, H., Buhr, H., Johnson, C., and Hoepner, J. (2013) AphasiaWeb: A Social Network for Individuals with Aphasia. *Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2013)*, Article 4: pp. 1–8. New York: ACM Press.

Komiskey, L., Brinkerhoff, D., **Miller, H.**, Morrison, J., and Morrison, C. (2010) A Peer Review System to Enhance Collaborative Learning: Testing and Preliminary Evaluation. *Proceedings of the Midwest Instruction and Computing Symposium (MICS 2010)*. pp. 1–13.

PEER REVIEWED WORKSHOP PAPERS, EXTENDED ABSTRACTS & POSTERS

Miller Hillberg, H., Krohn, E., and Pahlow, A. (2021) Improved Bounds for Half-Guarding Monotone Polygons. *In Book of Abstracts of the 37th European Workshop on Computational Geometry (EuroCG 2021).*

Kaur, H., Johnson, I., **Miller, H.**, Terveen, L., Lampe, C., Hecht, B., and Lasecki, W. (2018) Oh The Places You'll Share: An Affordances-Based Model of Social Media Posting Behaviors. *In Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems (CHI EA '18)*. Association for Computing Machinery, New York, NY, USA, Paper LBW534, 1–6.

ACADEMIC HONORS, FELLOWSHIPS, & SCHOLARSHIPS

Fellowships
National Science Foundation Graduate Research Fellowship
⧫ Full funding for 3 years. 2015–Present.

Graduate Assistance in Areas of National Need (GAANN) and Block Grant Fellowships
⧫ University of Minnesota Department of Computer Science and Engineering
⧫ Full funding for 1 year. 2013–2014.

Blugold Fellowship Award
⧫ University of Wisconsin – Eau Claire
⧫ Funding 2 years of undergraduate research. 2009–2011.

Awards and Honors
University of Wisconsin – Eau Claire
⧫ University Outstanding Senior Award

- ♦ Department of Computer Science Outstanding Senior Award
- ♦ Honors Program

Scholarships
- ♦ Upsilon Pi Epsilon (UPE) ACM Student Chapter Scholarship Award. $1,000. 2012.
- ♦ Northwestern Mutual Computer Science Corporate Scholarship. $5,000. 2011–2012.
- ♦ Barry Goldwater Scholarship Honorable Mention. 2011.
- ♦ Karlgaard Computer Science Scholarship. $16,000. 2009–2013.
- ♦ Wisconsin Academic Excellence Scholarship. $9,000. 2009–2013.

SELECTED MEDIA COVERAGE

Selected Coverage of Emoji Research from ICWSM 2016 Paper   *Spring 2016*
  NPR – April 12, 2016
- ♦ *Lost In Translation: Study Finds Interpretation of Emojis Can Vary Widely*
  The Washington Post – April 12, 2016
- ♦ *Why that emoji grin you sent might show up as a grimace*
  Science Friday – April 15, 2016
- ♦ *That Emoji You're Sending Is Open to Interpretation*
  BuzzFeed – April 12, 2016
- ♦ *This Is What iPhone Emojis Look Like on Android*
  New York Magazine – April 11, 2016
- ♦ *If Emoji Are the Future of Communication Then We're Screwed*
  El País – April 15, 2016
- ♦ *¿Qué quieres decir con [emoji]?* (Translation: *What do you mean with [emoji]?*)
  Le Monde – April 12, 2016
- ♦ *L'interprétation des emojis n'est pas universelle* (Translation: *The interpretation of emoji is not universal*)

ACADEMIC SERVICE

College of Letters and Science Committee Member
University of Wisconsin – Oshkosh
- ♦ Equity, Diversity, and Inclusive Climate (EDIC) Committee   Fall 2019 – Present
- ♦ Daniel Raaf Scholarship Committee   Fall 2019, Fall 2020

Department Committee Member
University of Wisconsin – Oshkosh
- ♦ Computer Science Scholarship Committee   Fall 2019 – Present
- ♦ Computer Science Curriculum Committee   Fall 2018 – Present
- ♦ Search and Screen Committee   Fall 2018, Fall 2019

Computer Science Club Co-Advisor *Fall 2018 – Present*
University of Wisconsin – Oshkosh

Instructor, Tech Titans Mobile App Academy June 17-20, 2019
University of Wisconsin – Oshkosh

Program Committee Member 2018-Present
International Workshops on Emoji Understanding and Applications in Social Media
International Conference on Web and Social Media (ICWSM '18)
The Web Conference (WWW '19)

Paper Reviewer
♦ Conference on Creativity & Cognition Spring 2021
♦ Conference on Computer-Supported Cooperative Work (CSCW) Spring 2021
♦ Conference on Computer-Supported Cooperative Work (CSCW) Summer 2020
♦ Language@Internet Journal Spring 2020
♦ Social Media and Society Journal Summer 2019
♦ Conference on Human Factors in Computing Systems (CHI) Fall 2018
♦ Conference on Human Factors in Computing Systems (CHI) Fall 2018
♦ Conference on Computer-Supported Cooperative Work (CSCW) Summer 2018

Computer Science Graduate Student Association President *Fall 2015 – Spring 2016*
University of Minnesota – Twin Cities
♦ Organize group meetings and social events
♦ Represent computer science graduate student body at faculty meetings

Graduate Recruiting Chair *Springs 2014 – 2016*
University of Minnesota – Twin Cities
♦ Assist Program Advisor in planning prospective graduate student visit weekend
♦ Participate in the students' visit through panels, tours, and networking meals and events

INDUSTRY EXPERIENCE

3M Research & Development Internship *Summers 2013 & 2014; St. Paul, MN*
♦ Partnered with mentor from previous summer to redesign the data management solution for 3M ESPE True Definition Scanner resources to improve efficiency and scalability
♦ Optimally combining legacy code with new, well-informed design and business ideas

3M Research & Development Internship *Summer 2012; St. Paul, MN*
♦ Collaborated with mentors to plan and implement a Microsoft Windows Azure application and repository for maintaining resources on many remote systems
♦ Encountered process of releasing a public product and learned importance of prioritization through observation of technical, business, and field personnel in an alliance to deliver a successful and innovative launch

Humana IT Internship   *Summer & Winter 2011; Green Bay, WI*
- Developed a Security Process System for the security department as an agile software team
- Built the system as a Silverlight application in Visual Studio 2010 using a SQL Server 2008 database