Jess Hohenstein

Postdoctoral HCI Researcher

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Summary

I am a mixed methods researcher with over 6 years of experience leading end-to-end applied product & academic research initiatives, including question generation, experimental design, screening & recruiting, qualitative interviews, survey design, linguistic & sentiment analysis, and statistical analysis. I hold a PhD in Human-Computer Interaction with concentrations in Social Aspects of Information & Communication, where my research has focused on understanding the social dynamics of human interactions with and mediated by AI. I am the first author of 7 peer-reviewed publications.

Education

2016 – 2020 **Doctor of Philosophy**, *Cornell University*, Information Science.
Primary Concentration: Human-Computer Interaction
Secondary Concentration: Social Aspects of Information
Minor: Communication
Dissertation: *AI-Mediated Communication: Effects on Language and Interpersonal Relationships*

2016 – 2019 **Master of Science**, *Cornell University*, Information Science.

2014 – 2016 **Master of Science**, *Cornell University*, Mechanical Engineering,
Concentration: Fluid Mechanics.
Thesis: *Development of a Compact Optical Rapid Diagnostic Test Reader and a Point-of-Care Fluorescence Lateral Flow Assay for Dengue Detection*
Dean's Excellence Fellowship

2010 – 2014 **Bachelor of Science**, *Northeastern University*, Mechanical Engineering,
Minor: Mathematics.
Summa Cum Laude

Experience

Aug 2020 – Current **Postdoctoral Researcher**, *Cornell University*, Remote,
Robots in Groups Lab, Advised by Malte Jung.
- Leading remote online studies & surveys to inform the design and development of human-AI agent teams
- Proposed research agenda and wrote grant proposal, "Adaptive AI Mediation to Promote Enhanced Team Communication and Performance", awarded $100K by U.S. Army Research Laboratory

Sept 2016 – Aug 2020 **Graduate Research Assistant**, *Cornell University*, Ithaca, NY,
Robots in Groups Lab, Advised by Malte Jung.
- Led multiple generative & evaluative mixed methods studies illustrating the ways that AI affects users' communication, trust, and relationships
- Developed a web-based AI messaging tool and deployed in multiple online studies with 2,000+ remote users
- Independently designed and executed a remote online experiment & survey with 113 users, a multi-phase in-lab study including semi-structured think-aloud interviews with 72 users, and a large-scale collection & linguistic analysis of messaging conversation data from 298 users

May – Aug 2019	**Graduate Research Assistant**, *Cornell University*, Ithaca, NY, Group and Interpersonal Communication Research Lab, Advised by Poppy McLeod.

- Designed & executed multiple evaluative quantitative experiments with 1,000+ users investigating the relationship between remote group collaboration & terror management theory

May – Aug 2018	**UX Researcher**, *Facebook*, Menlo Park, CA.

- Led multiple qualitative & quantitative experiments on the cross functional Pages product team including an online survey with 10,000+ users resulting in the development of a new messaging feature for Page admins & remote in-depth interviews with 14 users leading to the development of a new user experience for Buy-Sell Groups
- Developed a coherent user story for the developing Mexican market through international fieldwork (Querétaro City & Mexico City, Mexico) interviewing small business Page admins
- Collaborated with Data Science to qualitatively analyze 170 business posts to determine user posting intents, resulting in concrete recommendations for driving engagement

Nov 2014 – Dec 2017	**Research Assistant**, *Cornell University*, Ithaca, NY, Interaction Design Lab, Advised by Geri Gay.

- Led a multidisciplinary team through an iterative user-centered design process, (e.g., design thinking workshops, usability studies), resulting in a mobile health hardware device & app
- Led mixed-methods study including interviews with 27 users & an online survey with 303 users identifying design features that help users understand self-gathered health data

March – Sept 2017	**UX Researcher**, *Mozilla*, Remote.

- Led multiple qualitative & quantitative studies that confirmed users' performance perceptions of new Firefox browser
- Designed online survey with 1,495 users to illustrate the positive effect of targeted ad messaging on user perceived performance of Firefox, resulting in an advertising campaign
- Designed in-lab user study including A/B experiment & semi-structured interviews & partnered with external vendor to perform

Jan – March 2013	**Mechanical Engineer**, *Jola Venture*, Bamenda, Cameroon.

- Created and executed detailed test plan for bucket design analysis of Solpod (solar food dehydrator)
- Tested materials for heat flow optimization for Solpod, analyzed results, and made materials recommendation

Jan – June 2012	**Software Engineer**, *GE Intelligent Platforms*, Albany, NY.

- Tested and determined issues with Proficy HMI/SCADA user experience on iPad and iPod Touch
- Added Copy/Paste Animations and Copy/Paste Variables features (useable via GUI and object model) to CimEdit and ran automated testing and wrote documentation for and presented to QA teams
- Tested Proficy Workflow import/export capabilities via .xml and .csv

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Teaching

Fall 2019 Fall 2018 Fall 2017	**Teaching Assistant**, *Cornell University*, INFO4430, Teams and Technology.
Spring 2019	**Teaching Assistant**, *Cornell University*, INFO410/6130, Health and Computation.
Spring 2018	**Teaching Assistant**, *Cornell University*, INFO1200, Information Ethics, Law, and Policy.
Spring 2019	**Teaching Assistant**, *Cornell University*, MAE3272, Mechanical Properties and Performance Laboratory.

Refereed Journal Articles

1. **Jess Hohenstein**, Dominic DiFranzo, Rene Kizilcec, Zhila Aghajari, Hannah Mieczkowski, Karen Levy, Mor Naaman, Jeff Hancock, and Malte Jung. *AI-Mediated Communication: Smart replies shape language and interpersonal perceptions*. *Under review*.
2. **Jess Hohenstein** and Malte Jung. 2020. *AI as a Moral Crumple Zone: The Effects of AI-Mediated Communication on Attribution and Trust*. Computers in Human Behavior 106, 106190. doi:10.1016/j.chb.2019.106190
3. **Jess Hohenstein**, Eric P.S. Baumer, Lindsay Reynolds, Elizabeth L. Murnane, Dakota O'Dell, Seoho Lee, Shion Guha, Yu Qi, Erin Rieger, Phil Adams, and Geri Gay. 2018. *Supporting Accurate Interpretation of Self-Administered Medical Test Results for Mobile Health: The Importance of Design, Demographics, and Health Condition*. JMIR Human Factors 5(1):e9. doi:10.2196/humanfactors.8620
4. **Jess Hohenstein**, Dakota O'Dell, Elizabeth L. Murnane, Zhengda Lu, David Erickson, and Geri Gay. 2017. *Enhancing the Usability of an Optical Reader System to Support Point-of-Care Rapid Diagnostic Testing: An Iterative Design Approach*. JMIR Human Factors 4(4):e29. doi:10.2196/humanfactors.8621
5. Seoho Lee, Dakota O'Dell, **Jess Hohenstein**, Susannah Colt, Saurabh Mehta, and David Erickson. 2016. *NutriPhone: smartphone platform for vitamin B12 quantification in point-of-care settings*. Scientific Reports 6, 28237. doi:10.1038/srep28237

Refereed Conference Papers

1. **Jess Hohenstein** and Malte Jung. 2018. *AI-Supported Messaging: An Investigation of Human-Human Text Conversation with AI Support*. CHI'18 Extended Abstracts. doi:10.1145/3170427.3188487
2. **Jess Hohenstein**, Hani Khan, Kramer Canfield, Sam Tung, and Rocio Perez Cano. 2016. *Shorter Wait Times: The Effects of Various Loading Screens on Perceived Performance*. CHI'16 Extended Abstracts. doi:10.1145/2851581.2892308

Theses and Dissertations

1. **Jess Hohenstein**. 2020. *AI-Mediated Communication: Effects on Language and Interpersonal Perceptions*. Cornell Theses and Dissertations.
2. **Jess Hohenstein**. 2016. *Development of a Compact Optical Rapid Diagnostic Test Reader and a Point-of-Care Fluorescence Lateral Flow Assay for Dengue Detection*. Cornell Theses and Dissertations. doi:10.7298/X4TB14TZ

Press Coverage

1. Matthew Sparkes. March 22, 2021. *Reading about Firefox makes it seem a faster web browser than Chrome*. New Scientist.
2. Paul Lilly. March 12, 2021. *Is Firefox faster than Chrome? Study finds people will think it is if articles say so*. PC Gamer.
3. Thomas Claburn. March 11, 2021. *Huge if true: If you show people articles saying that Firefox is faster than Chrome, they'll believe it*. The Register.
4. John Anderer. April 6, 2020. *Here's how AI can help us communicate remotely during this pandemic*. Ladders.
5. Melanie Lefkowitz. March 30, 2020. *AI as mediator: 'Smart' replies might help humans communicate*. Cornell Daily Chronicle.

Awards & Honors

2020	$100k Grant from U.S. Army Research Lab for *Adaptive AI Mediation to Promote Enhanced Team Communication and Performance*
2014	Dean's Excellence Fellowship, Cornell University
2013	Presidential Global Scholarship, Northeastern University
2013	Tau Beta Pi Member, Northeastern University
2011	Amelia Peabody Scholarship, Northeastern University
2010	Zonta International Young Women in Public Affairs Award
2009	Girl Scout Gold Award, "Hope for Domestic Violence Victims in Guatemala"

Service

2018 – Current **Reviewer**.
- Nature Scientific Reports
- ACM Conference on Human Factors in Computing Systems (CHI)
- ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)
- ACM Transactions on Human-Robot Interaction (ToHRI)
- Computers in Human Behavior (CHB)
- Hawaii International Conference on System Sciences (HICSS)
- Jeong-Yeol Yoon. 2019. *Smartphone based medical diagnostics*. Academic Press.

2016 – 2020 **Feline Friend**, *SPCA of Tompkins County*, Ithaca, NY.

2020 **Graphic Designer**, *1vyG Conference*, Ithaca, NY.

2019 **Student Member of Faculty Search Committee**, *Department of Information Science*, Cornell University, Ithaca, NY.

2016 **Graphic Designer**, *Ithaca Welcomes Refugees*, Ithaca, NY.

2015 **Graphic Designer**, *Sibley Graduate Research Symposium*, Ithaca, NY.

2015 **Graphic Designer**, *Kirby Research Group*, Cornell University, Ithaca, NY.

Interests and Hobbies

- Photography
- Cooking
- Travel
- Art
- Design
- Reading