

# CURRICULUM VITAE

## HAIYI ZHU

### ACADEMIC RANK

Daniel P. Siewiorek Associate Professor of Human-Computer Interaction  
Carnegie Mellon University

### EDUCATION

| <b>Degree</b>                       | <b>Institution</b>         | <b>Date Degree Granted</b> |
|-------------------------------------|----------------------------|----------------------------|
| Ph.D. in Human-Computer Interaction | Carnegie Mellon University | 2015                       |
| M.S. in Human-Computer Interaction  | Carnegie Mellon University | 2012                       |
| B.S. in Computer Science            | Tsinghua University        | 2009                       |

### EMPLOYMENT

|                                |   |                  |
|--------------------------------|---|------------------|
| Carnegie Mellon University     | Associate Professor,<br>Director of HCI undergraduate program | 2022.7 – present |
| Carnegie Mellon University     | Assistant Professor   | 2019.9 – 2022.7  |
| University of Minnesota        | Assistant Professor   | 2015.9 – 2019.9  |
| Carnegie Mellon University     | Research Assistant  | 2009.9 – 2015.9  |
| IBM Almaden Lab, San Jose      | Research Intern   | 2013.5 - 2013.8  |
| Hewlett-Packard Lab, Palo Alto | Research Intern   | 2011.5 - 2011.8  |

## HONORS AND AWARDS

2023 – SaTML 2023 Best Paper  
2022 – CHI 2022 Best Paper Honorable Mention  
2021 – CSCW 2021 Best Paper Honorable Mention  
2020 – Daniel P. Siewiorek Professorship  
2020 – CHI 2020 Best Paper Honorable Mention  
2018 – CHI 2018 Best Paper Honorable Mention  
2016 – CHI 2016 Best Paper Honorable Mention  
2016 – NSF CRII Award  
2016 – Allen Newell Award for Research Excellence (shared with Robert Kraut, Aniket Kittur, Moira Burke, and Yuqing Ren)  
2014 – Facebook Graduate Fellowship 2014-2015  
2013 – Human Factors Prize 2013  
2013 – CHI 2013 Best Paper Honorable Mention  
2012 – CSCW 2012 Best Paper Honorable Mention  
2009 – Tsinghua University Graduate, Department Highest Honor

## RESEARCH

### Grants and Contracts

Total: **\$4.9 million**

Since 2019: **\$4.6 million**

*Grants and Contracts as PI (Total: \$3.34 million)*

Title: **SCC-IRG Track 1: Empowering and Enhancing Workers Through Building A Community-Centered Gig Economy**

10/01/2020 to 09/31/2024

Role: PI

Co-PIs: David Burtch, Yanhua Li, Min Kyung Lee, and Steven Wu

Funding agency: NSF

Total award amount: \$ 2,013,764

Title: **EAGER:AI-DCL: Capture, Explain and Negotiate the Inherent Trade-offs in Machine Learning Algorithms**

10/01/2019 to 09/30/2022

Role: PI

Co-PIs: Steven Wu, Loren Terveen, and Mark Snyder

Funding agency: NSF (EAGER on AI and Society)

Total award amount: \$ 311,713

Title: **CHS:Small: Incorporating and Balancing Stakeholder Values in Algorithm Design**

8/1/2019-7/31/2023

Role: PI

Co-PIs: Loren Terveen, Steven Wu, Mark Snyder, and Aaron Halfaker

Funding agency: NSF

Total award amount: \$516,000

Title: **Supporting Effective AI-Augmented Decision-Making in Content Moderation**

Funding Agency: CMU Block Center

Role: PI

Co-PI: Kenneth Holstein, Steven Wu

Total award amount: \$80,000

Title: **Trustworthy data science for improving healthcare efficiency: the case of the medical referral process**

Role: CMU PI

Total award amount: \$50,000

Title: **Agent-based Simulation for Online Mental Health Matching**

Role: PI

Funding agency: 7 Cups

Total award amount \$30,000

Title: **Supporting Effective Use of Explanations for AI Systems**

09/01/2021 to 08/31/2022

Role: PI

Funding agency: Toyota Research Institute (TRI)

Total award amount: \$ 164,677

Title: **CRII: CHS: Sharing Over Direct and Extended Social Networks-Towards A Trustworthy and Efficient Sharing Economy**

9/1/2016-8/31/2019

Role: Sole PI

Funding agency: NSF

Total award amount: \$174,355

*Grants and Contracts as co-PI (Total: \$1.54 million)*

Title: **Scaffolding Responsible AI Practice at the Earliest Stages of Ideation, Problem Formulation and Project Selection**

Role: co-PI (PI: Ken Holstein)

Funding agency: PwC

Total award amount: \$350,193

Title: **A Tool to Study the Efficacy of Fairness Algorithms on Specific Bias Types**

Role: co-PI (PI: Hoda Heidari, Co-PI: Steven Wu)

Funding agency: Facebook/Meta

Total award amount: \$100,000

Title: **FAI: Advancing Fairness in AI with Human-Algorithm Collaborations**

01/01/2020 to 12/31/2022

Role: co-PI (PI: Steven Wu, Co-PIs: Alex Chouldechova, and Min Kyung Lee)

Funding agency: NSF Program on Fairness in Artificial Intelligence in Collaboration with Amazon (FAI)

Total award amount: \$1,037,000

Title: **Promoting Diversity in Peer Production through Mechanism Design**

01/01/2019-12/31/2019

Role: Co-PI (PI: Steven Wu)  
Finding agency: Facebook  
Total award amount: \$50,000

## **Publications**

### ***Refereed Journal Papers - Published***

[J18] Robert Kraut, Han Li, and Haiyi Zhu. "Mental health during the COVID-19 pandemic: Impacts of disease, social isolation, and financial stressors." *Plos one* 17, no. 11 (2022).

[J17] Anna Michelle Fang, and Haiyi Zhu. "Matching for Peer Support: Exploring Algorithmic Matching for Online Mental Health Communities." *Proceedings of the ACM on Human-Computer Interaction* 6, no. CSCW2 (2022): 1-37.

[J16] Zheng Yao , Haiyi Zhu, and Robert E Kraut. "Learning to Become a Volunteer Counselor: Lessons from a Peer-to-Peer Mental Health Community." *Proceedings of the ACM on Human-Computer Interaction* 6, no. CSCW2 (2022): 1-24.

[J15] Han Li, Robert Kraut, and Haiyi Zhu. "Technical Features of Asynchronous and Synchronous Community Platforms and their Effects on Community Cohesion: A Comparative Study of Forum-based and Chat-based Online Mental Health Communities." *Journal of Computer-Mediated Communication* 26, no. 6 (2021): 403-421.

[J14] Zheng Yao, Silas Weden, Lea Emerlyn, Haiyi Zhu, and Robert E. Kraut. "Together But Alone: Atomization and Peer Support among Gig Workers." *Proceedings of the ACM on Human-Computer Interaction* 5, no. CSCW2 (2021): 1-29.

[J13] Zheng Yao, Diyi Yang, John M. Levine, Carissa A. Low, Tenbroeck Smith, Haiyi Zhu, and Robert E. Kraut. 2021. Join, Stay or Go? A Closer Look at Members' Life Cycles in Online Health Communities. *Proc. ACM Hum.-Comput. Interact.*4, CSCW, (January 2021), 22 pages. **(CSCW 2021 Best Paper Honorable Mention)**

[J12] Ruoyan Kong, Haiyi Zhu, and Joseph A. Konstan. 2021. Learning to Ignore: A Case Study of Organization-Wide Bulk Email Effectiveness. *Proc. ACM Hum.-Comput. Interact.*4, CSCW, (January 2021), 23 pages.

[J11] Yan Xia, Haiyi Zhu, Tun Lu, Peng Zhang, and Ning Gu. 2020. Exploring Antecedents and Consequences of Toxicity in Online Discussions: A Case Study on Reddit. *Proc. ACM Hum.-Comput. Interact.*4, CSCW2, Article 108 (October 2020), 23 pages.

[J10] Hong Shen, Haojian Jin, Ángel Alexander Cabrera, Adam Perer, Haiyi Zhu, and Jason I. Hong. 2020. Designing Alternative Representations of Confusion Matrices to Support Non-Expert Public Understanding of Algorithm Performance. *Proc. ACM Hum.-Comput. Interact.* 4, CSCW2, Article 153 (October 2020), 22 pages.

[J9] Haiyi Zhu, Bowen Yu, Aaron Halfaker, and Loren Terveen. 2018. Value-Sensitive Algorithm Design: Method, Case Study, and Lessons. *Proc. ACM Hum.-Comput. Interact.* 2, CSCW, Article 194 (November 2018), 23 pages.

[J8] Weiwen Leung, Haiyi Zhu, and Joseph A. Konstan. 2017. The Effect of Emotional Cues from the NFL on Wikipedia Contributions. Proc. ACM Hum.-Comput. Interact. 1, CSCW, Article 66 (December 2017), 21 pages.

[J7] Bowen Yu, Xinyi Wang, Allen Yilun Lin, Yuqing Ren, Loren Terveen, and Haiyi Zhu. 2017. Out With The Old, In With The New?: Unpacking Member Turnover in Online Production Groups. Proc. ACM Hum.-Comput. Interact. 1, CSCW, Article 117 (December 2017), 19 pages.

[J6] Tawanna R. Dillahunt, Xinyi Wang, Earnest Wheeler, Hao Fei Cheng, Brent Hecht, and Haiyi Zhu. 2017. The Sharing Economy in Computing: A Systematic Literature Review. Proc. ACM Hum.-Comput. Interact. 1, CSCW, Article 38 (December 2017), 26 pages.

[J5] Maximilian Klein, Jinhao Zhao, Jiajun Ni, Isaac Johnson, Benjamin Mako Hill, and Haiyi Zhu. 2017. Quality Standards, Service Orientation, and Power in Airbnb and Couchsurfing. Proc. ACM Hum.-Comput. Interact. 1, CSCW, Article 58 (December 2017), 21 pages.

[J4] Peng Zhang, Haiyi Zhu, Tun Lu, Hansu Gu, Wenjian Huang, and Ning Gu. 2017. Understanding Relationship Overlapping on Social Network Sites: A Case Study of Weibo and Douban. Proc. ACM Hum.-Comput. Interact. 1, CSCW, Article 120 (December 2017), 18 pages.

[J3] S. Andrew Sheppard, Julian Turner, Jacob Thebault-Spieker, Haiyi Zhu, and Loren Terveen. 2017. Never Too Old, Cold or Dry to Watch the Sky: A Survival Analysis of Citizen Science Volunteerism. Proc. ACM Hum.-Comput. Interact. 1, CSCW, Article 94 (December 2017), 21 pages.

[J2] Haiyi Zhu, and Bernardo A. Huberman. 2014. To Switch or Not To Switch: Understanding Social Influence in Online Choices. American Behavioral Scientist, Volume: 58 issue: 10, page(s): 1329-1344.

[J1] Haiyi Zhu, Robert E. Kraut, and Aniket Kittur. 2013. Effectiveness of Shared Leadership in Wikipedia. Human Factors 55, no. 6 (December 2013): 1021–43. **(Winner of 2013 Human Factors Prize).**

### ***Refereed Conference Papers - Published***

[C42] Coston, Amanda, Anna Kawakami, Haiyi Zhu, Ken Holstein, and Hoda Heidari. "A Validity Perspective on Evaluating the Justified Use of Data-driven Decision-making Algorithms." in IEEE Conference on Secure and Trustworthy Machine Learning (SaTML) 2023. **(SaTML 2023 Best Paper.)**

[C41] Lu Sun, Yuhan Liu, Grace Joseph, Zhou Yu, Haiyi Zhu, and Steven P. Dow. "Comparing Experts and Novices for AI Data Work: Insights on Allocating Human Intelligence to Design a Conversational Agent." In Proceedings of the AAAI Conference on Human Computation and Crowdsourcing, vol. 10, no. 1, pp. 195-206. 2022.

[C40] Anna Kawakami, Venkatesh Sivaraman, Logan Stapleton, Hao-Fei Cheng, Adam Perer, Zhiwei Steven Wu, Haiyi Zhu, and Kenneth Holstein. 2022. "Why Do I Care What's Similar?" Probing Challenges in AI-Assisted Child Welfare Decision-Making through Worker-AI Interface Design Concepts. In Designing Interactive Systems Conference (DIS '22). Association for Computing Machinery, New York, NY, USA, 454–470.

[C39] Logan Stapleton, Min Hun Lee, Diana Qing, Marya Wright, Alexandra Chouldechova, Ken Holstein, Zhiwei Steven Wu, and Haiyi Zhu. 2022. Imagining new futures beyond predictive systems in

child welfare: A qualitative study with impacted stakeholders. In 2022 ACM Conference on Fairness, Accountability, and Transparency (FAccT '22). Association for Computing Machinery, New York, NY, USA, 1162–1177.

[C38] Hong Shen, Leijie Wang, Wesley H. Deng, Ciell Brusse, Ronald Velgersdijk, and Haiyi Zhu. 2022. The Model Card Authoring Toolkit: Toward Community-centered, Deliberation-driven AI Design. In 2022 ACM Conference on Fairness, Accountability, and Transparency (FAccT '22). Association for Computing Machinery, New York, NY, USA, 440–451.

[C37] Wesley Hanwen Deng, Manish Nagireddy, Michelle Seng Ah Lee, Jatinder Singh, Zhiwei Steven Wu, Kenneth Holstein, and Haiyi Zhu. 2022. Exploring How Machine Learning Practitioners (Try To) Use Fairness Toolkits. In 2022 ACM Conference on Fairness, Accountability, and Transparency (FAccT '22). Association for Computing Machinery, New York, NY, USA, 473–484.

[C36] Leijie Wang and Haiyi Zhu. 2022. How are ML-Based Online Content Moderation Systems Actually Used? Studying Community Size, Local Activity, and Disparate Treatment. In 2022 ACM Conference on Fairness, Accountability, and Transparency (FAccT '22). Association for Computing Machinery, New York, NY, USA, 824–838.

[C35] Jane Hsieh, Yili Hong, Gordon Burtch, and Haiyi Zhu. 2022. A Little Too Personal: Effects of Standardization versus Personalization on Job Acquisition, Work Completion, and Revenue for Online Freelancers. In Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI '22). Association for Computing Machinery, New York, NY, USA, Article 510, 1–11.

[C34] Anna Kawakami, Venkatesh Sivaraman, Hao-Fei Cheng, Logan Stapleton, Yanghui Cheng, Diana Qing, Adam Perer, Zhiwei Steven Wu, Haiyi Zhu, and Kenneth Holstein. 2022. Improving Human-AI Partnerships in Child Welfare: Understanding Worker Practices, Challenges, and Desires for Algorithmic Decision Support. In Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI '22). Association for Computing Machinery, New York, NY, USA, Article 52, 1–18. (**CHI 2022 honorable mention paper**).

[C33] Hao-Fei Cheng, Logan Stapleton\*, Anna Kawakami, Venkatesh Sivaraman, Yanghui Cheng, Diana Qing, Adam Perer, Kenneth Holstein, Zhiwei Steven Wu, and Haiyi Zhu. 2022. How Child Welfare Workers Reduce Racial Disparities in Algorithmic Decisions. In Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI '22). Association for Computing Machinery, New York, NY, USA, Article 162, 1–22.

[C32] Zining Ethan Ye, Xinran Yuan, Shaurya Gaur, Aaron Halfaker, Jodi Forlizzi, and Haiyi Zhu. 2021. Wikipedia ORES Explorer: Visualizing Trade-offs For Designing Applications With Machine Learning API. In Designing Interactive Systems Conference 2021 (DIS '21), June 28-July 2, 2021, Virtual Event, USA. ACM, New York, NY, USA, 12 pages.

[C31] Hao-Fei Cheng, Logan Stapleton, Ruiqi Wang, Paige Bullock, Alexandra Chouldechova, Zhiwei Steven Wu, and Haiyi Zhu. 2021. Soliciting Stakeholders' Fairness Notions in Child Maltreatment Predictive Systems. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). ACM, New York, NY, USA.

[C30] Dakuo Wang, Liuping Wang, Zhan Zhang, Ding Wang, Haiyi Zhu, Yvonne Gao, Xiangmin Fan, and Feng Tian. 2021. “Brilliant AI Doctor” in Rural China: Tensions and Challenges in AI-Powered CDSS Deployment. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). ACM, New York, NY, USA.

[C29] Hong Shen, Wesley H. Deng, Aditi Chattopadhyay, Zhiwei Steven Wu, Xu Wang, and Haiyi Zhu. 2021. Value Cards: An Educational Toolkit for Teaching Social Impacts of Machine Learning through Deliberation. In Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency (FAcCT '21). Association for Computing Machinery, New York, NY, USA, 850–861.

[C28] Bowen Yu, Ye Yuan, Loren Terveen, Zhiwei Steven Wu, Jodi Forlizzi, and Haiyi Zhu. 2020. Keeping Designers in the Loop: Communicating Inherent Algorithmic Trade-offs Across Multiple Objectives. In Proceedings of the 2020 on Designing Interactive Systems Conference (DIS'2020). ACM, New York, NY, USA.

[C27] C. Estelle Smith, Bowen Yu, Anjali Srivastava, Aaron Halfaker, Loren Terveen, and Haiyi Zhu. 2020. Keeping Community in the Loop: Understanding Wikipedia Stakeholder Values for Machine Learning-Based Systems. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20). ACM, New York, NY, USA, 1-14. (**CHI 2020 honorable mention paper**).

[C26] Wang, Ruotong, F. Maxwell Harper, and Haiyi Zhu. Factors Influencing Perceived Fairness in Algorithmic Decision-Making: Algorithm Outcomes, Development Procedures, and Individual Differences. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20). ACM, New York, NY, USA.

[C25] Weiwen Leung, Zheng Zhang, Daviti Jibuti, Jinhao Zhao, Maximillian Klein, Casey Pierce, Lionel Robert, and Haiyi Zhu. Race, Gender and Beauty: The Effect of Information Provision on Online Hiring Biases. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20). ACM, New York, NY, USA.

[C24] C. Estelle Smith, Eduardo Nevarez, and Haiyi Zhu. 2020. Disseminating Research News in HCI: Perceived Hazards, How-To's, and Opportunities for Innovation. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20). ACM, New York, NY, USA.

[C23] Haiwei Ma, Hao-Fei Cheng, Bowen Yu, and Haiyi Zhu. "Effects of Anonymity, Ephemerality, and System Routing on Cost in Social Question Asking." Proceedings of the ACM on Human-Computer Interaction 3, no. GROUP (2019): 1-21.

[C22] Hao-Fei Cheng, Ruotong Wang, Zheng Zhang, Fiona O'Connell, Terrance Gray, F. Maxwell Harper, and Haiyi Zhu. 2019. Explaining Decision-Making Algorithms through UI: Strategies to Help Non-Expert Stakeholders. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19). ACM, New York, NY, USA, Paper 559, 12 pages.

[C21] Hao-Fei Cheng, Bowen Yu, Siwei Fu, Jian Zhao, Brent Hecht, Joseph Konstan, Loren Terveen, Svetlana Yarosh, and Haiyi Zhu. 2019. Teaching UI Design at Global Scales: A Case Study of the Design of Collaborative Capstone Projects for MOOCs. Learning at Scale 2019.

[C20] Bodong Chen and Haiyi Zhu. 2019. Towards Value-Sensitive Learning Analytics Design. In Proceedings of the 9th International Conference on Learning Analytics & Knowledge (LAK19). ACM, New York, NY, USA, 343-352.

[C19] C. Estelle Smith, Xinyi Wang, Raghav Pavan Karumur, and Haiyi Zhu. 2018. [Un]breaking News: Design Opportunities for Enhancing Collaboration in Scientific Media Production. In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (CHI '18). ACM, New York, NY, USA, Paper 381, 13 pages. (**CHI 2018 honorable mention paper**).

- [C18] Raghav Pavan Karumur, Bowen Yu, Haiyi Zhu, and Joseph A. Konstan. 2018. Content is King, Leadership Lags: Effects of Prior Experience on Newcomer Retention and Productivity in Online Production Groups. In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (CHI '18). ACM, New York, NY, USA, Paper 506, 13 pages.
- [C17] Siwei Fu, Jian Zhao, Hao Fei Cheng, Haiyi Zhu, and Jennifer Marlow. 2018. T-Cal: Understanding Team Conversational Data with Calendar-based Visualization. In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (CHI '18). ACM, New York, NY, USA, Paper 500, 13 pages.
- [C16] Bowen Yu, Yuqing Ren, Loren Terveen, and Haiyi Zhu. 2017. Predicting Member Productivity and Withdrawal from Pre-Joining Attachments in Online Production Groups. In Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW '17). ACM, New York, NY, USA, 1775-1784.
- [C15] Maximilian Klein, Harsh Gupta, Vivek Rai, Piotr Konieczny, and Haiyi Zhu. 2016. Monitoring the Gender Gap with Wikidata Human Gender Indicators. In Proceedings of the 12th International Symposium on Open Collaboration (OpenSym '16). ACM, New York, NY, USA, Article 16, 9 pages.
- [C14] Haiyi Zhu, Sauvik Das, Yiqun Cao, Shuang Yu, Aniket Kittur, and Robert Kraut. 2016. A Market in Your Social Network: The Effects of Extrinsic Rewards on Friendsourcing and Relationships. In Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (CHI '16). ACM, New York, NY, USA, 598-609. (**CHI 2016 honorable mention paper**).
- [C13] Haiyi Zhu, Robert E. Kraut, and Aniket Kittur. 2016. A Contingency View of Transferring and Adapting Best Practices within Online Communities. In Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing (CSCW '16). ACM, New York, NY, USA, 729-743.
- [C12] Wenjian Huang, Tun Lu, Haiyi Zhu, Guo Li, and Ning Gu. 2016. Effectiveness of Conflict Management Strategies in Peer Review Process of Online Collaboration Projects. In Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing (CSCW '16). ACM, New York, NY, USA, 717-728.
- [C11] Guo Li, Haiyi Zhu, Tun Lu, Xianghua Ding, and Ning Gu. 2015. Is It Good to Be Like Wikipedia?: Exploring the Trade-offs of Introducing Collaborative Editing Model to Q&A Sites. In Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW '15). ACM, New York, NY, USA, 1080-1091.
- [C10] Haiyi Zhu, Jilin Chen, Tara Matthews, Aditya Pal, Hernan Badenes, and Robert E. Kraut. 2014. Selecting an effective niche: an ecological view of the success of online communities. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '14). ACM, New York, NY, USA, 301-310.
- [C9] Haiyi Zhu, Robert E. Kraut, and Aniket Kittur. 2014. The impact of membership overlap on the survival of online communities. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '14). ACM, New York, NY, USA, 281-290.
- [C8] Tara Matthews, Jilin Chen, Steve Whittaker, Aditya Pal, Haiyi Zhu, Hernan Badenes, and Barton Smith. 2014. Goals and perceived success of online enterprise communities: what is important to leaders

& members?. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '14). ACM, New York, NY, USA, 291-300.

[C7] Haiyi Zhu, Steven P. Dow, Robert E. Kraut, and Aniket Kittur. 2014. Reviewing versus doing: learning and performance in crowd assessment. In Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing (CSCW '14). ACM, New York, NY, USA, 1445-1455.

[C6] Haiyi Zhu, Amy Zhang, Jiping He, Robert E. Kraut, and Aniket Kittur. 2013. Effects of peer feedback on contribution: a field experiment in Wikipedia. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '13). ACM, New York, NY, USA, 2253-2262. (**CHI 2013 honorable mention paper**).

[C5] Haiyi Zhu, Bernardo Huberman, and Yarun Luon. 2012. To switch or not to switch: understanding social influence in online choices. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '12). ACM, New York, NY, USA, 2257-2266.

[C4] Haiyi Zhu, Robert Kraut, and Aniket Kittur. 2012. Effectiveness of shared leadership in online communities. In Proceedings of the ACM 2012 conference on Computer Supported Cooperative Work (CSCW '12). ACM, New York, NY, USA, 407-416. (**CSCW 2012 honorable mention paper**).

[C3] Haiyi Zhu, Robert Kraut, and Aniket Kittur. 2012. Organizing without formal organization: group identification, goal setting and social modeling in directing online production. In Proceedings of the ACM 2012 conference on Computer Supported Cooperative Work (CSCW '12). ACM, New York, NY, USA, 935-944.

[C2] Andrea Forte, Niki Kittur, Vanessa Larco, Haiyi Zhu, Amy Bruckman, and Robert E. Kraut. 2012. Coordination and beyond: social functions of groups in open content production. In Proceedings of the ACM 2012 conference on Computer Supported Cooperative Work (CSCW '12). ACM, New York, NY, USA, 417-426.

[C1] Haiyi Zhu, Robert E. Kraut, Yi-Chia Wang, and Aniket Kittur. 2011. Identifying shared leadership in Wikipedia. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '11). ACM, New York, NY, USA, 3431-3434.

### *Unrefereed Conference/Workshop Papers*

[W6] Logan Stapleton, Devansh Saxena, Anna Kawakami, Tonya Nguyen, Asbjørn Ammitzbøll Flügge, Motahhare Eslami, Naja Holten Møller et al. "Who Has an Interest in "Public Interest Technology"?: Critical Questions for Working with Local Governments & Impacted Communities." In Companion Publication of the 2022 Conference on Computer Supported Cooperative Work and Social Computing, pp. 282-286. 2022.

[W5] Anna Kawakami, Luke Guerdan, Yang Cheng, Anita Sun, Alison Hu, Kate Glazko, Nikos Arechiga et al. "Towards a Learner-Centered Explainable AI: Lessons from the learning sciences."

[W4] Haiwei Ma, Bowen Yu, Hao Fei Cheng, and Haiyi Zhu. "Understanding Social Costs in Online Question Asking." In Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems, pp. 1-6. 2019.

[W3] Christine T. Wolf, Haiyi Zhu, Julia Bullard, Min Kyung Lee, and Jed R. Brubaker. "The Changing Contours of" Participation" in Data-driven, Algorithmic Ecosystems: Challenges, Tactics, and an

Agenda." In Companion of the 2018 ACM Conference on Computer Supported Cooperative Work and Social Computing, pp. 377-384. 2018.

[W2] Xinyi Wang, Haiyi Zhu, Yangyun Li, Yu Cui, and Joseph Konstan. "A community rather than a union: Understanding self-organization phenomenon on Mturk and how it impacts Turkers and requesters." In Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems, pp. 2210-2216. 2017.

[W1] Hao Fei Cheng, Bowen Yu, Yeong Hoon Park, and Haiyi Zhu. "ProjectLens: Supporting Project-Based Collaborative Learning on MOOCs." In Proceedings of the Fourth (2017) ACM Conference on Learning@ Scale, pp. 253-256. 2017.

## **Presentations**

### *Invited Presentations at Professional Meetings, Conferences, Universities and Industries, etc.*

Bridging AI and HCI: Incorporating Human Values into the Development of AI Technologies. Microsoft Research. Jan, 2023.

Bridging AI and HCI: Incorporating Human Values into the Development of AI Technologies. Stanford HCI Seminar. Nov, 2022.

Human-AI Collaboration in Child Welfare : Leverage the Complementary Strengths of Human and Algorithmic Judgment. UMaine Artificial Intelligence webinar. 2022.02

Human-AI Collaboration in Child Welfare : Leverage the Complementary Strengths of Human and Algorithmic Judgment. TRI. 2021.11

Community-Centered AI: Identifying and Navigating Trade-offs Across Multiple Community Goals in AI Design. Metagovernance Seminar. 2021.08

Bridging AI and HCI: Incorporating Human Values into the Development of AI Technologies. IBM Research, 2021.05.

NSF Workshop on Accelerating Materials Discovery, Design, and Synthesis: A Grand Challenge for Artificial Intelligence, 2021.04.

From Discovery to Design: Creating AI Technologies to Support Massive-Scale Online Collaboration. UC Berkeley, 2019.07.

From Discovery to Design: Creating AI Technologies to Support Massive-Scale Online Collaboration. Carnegie Mellon University, 2019.03.

Blending the Methods of Science and Design to Study Peer Production. Northwestern University, 2018.12

Value Sensitive Algorithm Design: Method, Case Study and Lessons. CSCW, 2018.11.

Value Sensitive Algorithm Design: Method, Case Study and Lessons. HCIC, 2018.06.

The Effect of Emotional Cues from the NFL on Wikipedia Contributions. IRSA Workshop on Data Science, 2017.11, UMN, Minneapolis.

Quality Standards, Service Orientation, and Power in Airbnb and Couchsurfing, Sharing Economy Initiative, 2017.11, UMN, Minneapolis.

Understanding Discrimination in Sharing Economy Platforms. Sharing Economy Initiative, 2017.11, UMN, Minneapolis.

A Market in Your Social Network: The Effects of Extrinsic Rewards on Friendsourcing and Relationships. 2017.02. Harvard. Boston, United States.

Understanding the Social-based and Market-based Sharing Systems: The Cases of Mobilyzr, Airbnb and Couchsurfing, 2016.06, Colloquium Talk of Big Data Summer REU program, Dept. Computer Science & Engineering, UMN, Minneapolis.

A Contingency View of Transferring and Adapting Best Practices within Online Communities. In CSCW'2016, San Francisco, United States.

Achieving Success in Peer Production: Contributor Management, Best Practice Transfer and Inter-Community Relationships, 2015.10, Colloquium Talk, Dept. Computer Science & Engineering, UMN, Minneapolis.

Achieving Success in Peer Production: Contributor Management, Best Practice Transfer and Inter-Community Relationships, 2015.10, Seminar Talk, MSSE seminar series, UMN, Minneapolis.

Selecting an Effective Niche: An Ecological View of the Success of Online Communities. In CHI' 2014, Toronto, Canada.

The Impact of Membership Overlap on the Survival of Online Communities. In CHI' 2014, Toronto, Canada.

Reviewing versus Doing: Learning and Performance in Crowd Assessment. In CSCW' 2014, Baltimore.

Understanding Leadership in Online Collaboration, Colloquium Talk, University of Minnesota, Twin-cities, 2014.2, Minneapolis.

Understanding Leadership in Online Collaboration, Colloquium Talk, Washington University in St. Louis, 2014.2, St. Louis.

The Impact of Membership Overlap on the Survival of Online Communities. In ICIS' 2013, Milan, Italy.

Shared Leadership in Online Communities, Invited Talk, Emerging Ideas Series, Center for Collective Intelligence, 2012.10, MIT, Boston.

Shared Leadership in Online Communities, Invited Talk, Harvard Berkman Center, 2012.10 Boston.

Effectiveness of Shared Leadership in Online Communities. Open and User Innovation Workshop 2012, 2012.08, Boston.

To Switch or Not To Switch: Understanding Social Influence in Online Choices. In CHI' 2012, Texas.

Effectiveness of Shared Leadership in Online Communities. In CSCW' 2012, Seattle.

Organizing without formal organization: Group Identification, Goal Setting and Social Modeling in Directing Online Production. In CSCW' 2012, Seattle.

Understanding Human Behaviors in Social Computing Systems, Invited Talk, HP Lab, 2012.01, China

Understanding Human Behaviors in Social Computing Systems, Invited Talk, Tsinghua University, 2012.01, China.

Identifying Shared Leadership in Wikipedia. In CHI'2011, Vancouver, Canada.

## **TEACHING AND CURRICULUM DEVELOPMENT**

### **Carnegie Mellon University**

Spring 2021, 2022. HCI for Product Managers

Spring 2021. Social Perspective of HCI

Fall 2020, 2021, 2022. Human AI Interaction <https://haiicmu.github.io/>

Spring 2020. Designing Human Centered Software

### **University of Minnesota**

Spring 2019. CSCI 5115. User Interface Design, Implementation, and Evaluation (sec 001)

Fall 2018. CSCI 8115. Human-Computer Interaction and User Interface Technology (sec 001)

Spring 2018 CSCI 1133. Introduction to Computing and Programming Concepts.

Fall 2017. CSCI 8115. Human-Computer Interaction and User Interface Technology (sec 001)

Spring 2017. CSCI 5125. Collaborative and Social Computing (sec 001)

Spring 2016. CSCI 8980. Special Advanced Topics in Computer Science (section 001)  
Evidence-based social computing system design.

## **Collaborative Efforts and Activities**

Coursera Specialization on User Interface Design

With Joe Konstan, Loren Terveen, Lana Yarosh and Brent Hecht

## **ADVISING AND MENTORING**

### **Undergraduate Student Mentoring Activities**

Wesley Deng (Berkeley, Now CMU)  
Grace Joseph (CMU)  
Yuhan Liu (CMU)  
Janet Li (CMU)  
Ruiqi Wang (CMU)  
Paige Bullock (Kenyon College)  
Leijie Wang (Tsinghua University)  
Aditi Chattopadhyay (CMU)  
Shaurya Gaur (Oregon State University)  
Manish Nagireddy (CMU)  
Anna Yuan (CMU)  
Bruce Xingyu Liu (CMU)  
Ethan Zining Ye (CMU)  
Silas Weden (Smith College)  
Lea Emerlyn (CMU)  
Ruotong Wang, current (Macalester College, now U of Washington)  
Lu Li, (Macalester College)  
Ling Ma, (Macalester College)  
Jingchao Fang (UMN)  
Yixiong Chen (UMN)  
Da Song (UMN)  
Yongle Zhang (UMN)  
Jinhao Zhao, 2017-2018 (Tsinghua University)  
Terrance Gray, summer 2018 (UMN)  
Daniel Takata, summer 2018 (UMN)  
Fiona O'Connell, summer 2018 (University of Chicago)  
I-Ju Lin, Summer 2017 – June 2018 (National Tsing Hua University)  
Mark Asp, Fall 2017 (UMN)  
Kangjing Fan, Summer 2017 (Tsinghua University)  
Tosin Alliyu, Summer 2016  
Steven Roach, Summer 2016  
Xinyi Wang, 2015.10-2016.6 (UMN)  
Claire Huri, 2016.1-2016.6 (UMN)  
Cassie (Jiajun) Ni, 2016.1-2016.6 (UMN)

Zilong Zheng, 2015.10-2016.1(UMN)

### **Graduate Student Mentoring Activities**

#### Doctoral Students Advised (Current)

Zheng Yao (co-advised with Robert Kraut, CMU)  
Anna Fang (CMU)  
Jane Hsieh (CMU)  
Logan Stapleton (UMN)  
Naomie Candace Williams (CMU)  
Jordan Taylor (CMU)  
Tzu-Sheng Kuo (CMU)  
Anna Kawakami (CMU)  
Se-Yun Kim (CMU)

#### Doctoral Students Advised (Graduated)

Bowen Yu (co-advised with Loren Terveen, UMN, now at Facebook)  
Hao-Fei Cheng (co-advised with Steven Wu, now at Amazon)

### **Other Mentoring Activities**

#### Doctoral students research projects

Weiwen Leung  
Haiwei Ma  
Raghav Karumu  
Estelle Smith  
Max Klein  
Xinyi Wang  
Lu Sun

#### Doctoral dissertation proposal committee members

Zhihong Ke (Carlson School of Management)  
Andrew Sheppard

#### Doctoral students WPE & OPE committee member (reviewer)

Hannah Miller  
Taavi Taijala  
Nick Sohre  
Sarah McRoberts  
Andrew Hall

### **SERVICE AND PUBLIC OUTREACH**

## **Service To The Discipline/Profession/Interdisciplinary Area(s)**

### ***Committee memberships***

CHI 2023 Subcommittee chair  
FAcct 2022 Area Chair, Proceeding Chair  
CHI 2022 Program Committee Member  
CSCW 2021 Program Committee Member  
CHI 2021 Program Committee Member  
FAcct 2021 Program Committee  
CSCW 2020 Program Committee Member  
Acting Editor of HCI Journal Special Topic on HCI and AI  
Secretary/Treasurer of HCIC (2019.02- 2019.08)  
HCIC chair (2018.9-2019.02)  
CHI 2019 Program Committee Member  
CHI 2018 best paper committee  
CHI 2018 Program Committee Member (two rounds)  
CSCW 2018 Program Committee Member  
OpenSym 2017 Senior Program Committee Member  
CSCW 2017 Program Committee Member  
OpenSym 2016, 2015, 2014 Program Committee Member  
Chinese CHI 2016, 2015 Program Committee Member  
WWW 2015 Program Committee Member  
ICWSM 2011 Program Committee Member  
Reviewer for CHI 2017, 2016, 2015,2014, 2013, CSCW 2017, 2016, 2015, 2014, 2013

### ***Service To The University/College/Department***

#### ***Carnegie Mellon University***

2022 - : HCII Undergraduate Program Director  
2021-2022: CMU Faculty senator  
2020-2021: Admission committee, Department  
2019-2020: Hiring committee, Department

#### ***University of Minnesota***

2018-2019: Curriculum committee, Department  
PHD & WPE Evaluation committee, Department  
50 Year Open House Planning Committee and Editorial Board, Department  
2017-2018: Graduate admission committee, Department  
PHD & WPE Evaluation committee, Department  
2016-2017: Graduate admission committee, Department  
PHD & WPE Evaluation committee, Department  
2016-2017: Curriculum committee, Department  
Graduate admission committee, Department  
PHD & WPE Evaluation committee, Department  
Recruiting committee, Department  
2015-2016: Graduate –admission committee, Department