

CURRICULUM VITAE

Haiyi Zhu

IDENTIFYING INFORMATION

Academic Rank

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

Education

Degree	Institution	Date Degree Granted
B.S. Computer Science	Tsinghua University	2009
M.S. Human-Computer Interaction	Carnegie Mellon University	2012
Ph.D. Human-Computer Interaction Advisors: Dr. Robert E. Kraut, Dr. Aniket Kittur	Carnegie Mellon University	2015

Positions/Employment

Carnegie Mellon University Assistant Professor	2019.9 – present
University of Minnesota, Twin Cities Assistant Professor	2015.9 – 2019.9
Carnegie Mellon University Graduate 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

Current Membership in Professional Organizations

ACM professional member

HONORS AND AWARDS FOR RESEARCH/CREATIVE WORK, TEACHING, PUBLIC ENGAGEMENT, AND SERVICE

2018 - CHI' 2018 Honorable Mention

2016 - CHI' 2016 Honorable Mention

2016 – NSF CRII Award

2016 - Allen Newell Award for Research Excellence (shared with Robert Kraut, Aniket Kittur, Moira Burke, and Ching Ren)

2014 - Facebook Graduate Fellowship 2014-2015

2013 - Human Factors Prize 2013

2013 - CHI'2013 Honorable Mention

2012 - CSCW'2012 Honorable Mention

2009 - Tsinghua University Graduate, CS Department Highest Honor

RESEARCH

Grants and Contracts

Role: PI

(co-PIs: Steven Wu, Loren Terveen, and Mark Snyder)

Funding agency: NSF (EAGER on AI and Society)

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

10/01/2019 to 09/30/2021

Total award amount: \$295,713

Role: PI

(co-PIs: Loren Terveen, Steven Wu, Mark Snyder and Aaron Halfaker)

Funding agency: NSF

“CHS:Small: Incorporating and Balancing Stakeholder Values in Algorithm Design”

8/1/2019-7/31/2022

Total award amount: \$500,000

Role: Co-PI (PI: Steven Wu)

Funding agency: Facebook

“Promoting Diversity in Peer Production through Mechanism Design”, 01/01/2019-12/31/2019

Total award amount: \$50,000

Role: Sole PI

Funding agency: NSF

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

9/1/2016-8/31/2019

Total award amount: \$174,355

Role: Sole PI

Funding agency: SOBACO (Social Media and Business Analytics Collaborative) at UMN

Micro-grant program, 6/1/2016-12/31/2016^[SEP]

Total award amount: \$2,500

Facebook PhD Fellowship

Funding agency: Facebook

09/01/2014 – 06/01/2015

Total award amount: Tuition, Fees and additional \$37,000.

Publications

Refereed Journal Articles and Conference Proceedings

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.

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.

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.

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.

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**).

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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**).

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.

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.

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.

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.

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.

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.

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.

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.

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**).

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**).

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.

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**).

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.

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.

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.

Presentations

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

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.

Contributed Papers Presented at Professional Meetings, Conferences, etc. (use any standard format that the candidate's field uses)

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.

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.

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.

Zhu, H., Kraut, R.E., & Kittur, A., (2013). Effects of Peer Feedback on Contribution: A Field Experiment in Wikipedia. In CHI'2013. Paris, France.

TEACHING AND CURRICULUM DEVELOPMENT

University of Minnesota

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

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

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

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

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

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

Collaborative Efforts and Activities

Coursera Specialization on User Interface Design
With Joe Konstan, Loren Terveen, Lana Yarosh and Brent Hecht
Starting from Sept. 2016

Guest Lecture. CSCI 8001. Intro to Research in Computer Science. 2017.10, 2018.11

Guest Lectures. CSCI 8115. Human-Computer Interaction and User Interface Technology. 2015.10.

ADVISING AND MENTORING

Undergraduate Student Activities

Undergraduate research assistants

Ruotong Wang, current (Macalester College)

Lu Li, (Macalester College)

Ling Ma, (Macalester College)

Jingchao Fang

Yixiong Chen

Da Song

Yongle Zhang

Jinhao Zhao, 2017-2018 (Tsinghua University)

Terrance Gray, summer 2018

Daniel Takata, summer 2018
Fiona O'Connell, summer 2018 (University of Chicago)
I-Ju Lin, Summer 2017 – June 2018 (National Tsing Hua University)
Mark Asp, Fall 2017
Kangjing Fan, Summer 2017 (Tsinghua University)
Tosin Alliyu, Summer 2016
Steven Roach, Summer 2016
Xinyi Wang, 2015.10-2016.6
Claire Huri, 2016.1-2016.6
Cassie (Jiajun) Ni, 2016.1-2016.6
Zilong Zheng, 2015.10-2016.1

Graduate Student Activities

Master (Plan A)'s Theses Directed

Zhiyi Li, UMN, 2016.12
Mark Yousef, UMN, 2019.08

Doctoral Students Directed

Weiwen Leung (Economics Dept. now post-doc at U of Toronto)

Doctoral Students Advised (Current)

Bowen Yu (co-advised with Loren Terveen)
Xinyi Wang
Hao-Fei Cheng (co-advised with Steven Wu)
Estelle Smith
Maximilian Klein (Leave of absence)

Other Mentoring Activities

Doctoral students research projects

Haiwei Ma
Raghav Karumu

Doctoral dissertation proposal committee members

Zhihong Ke (Calson 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

Secretary/Treasurer of HCIC (2019.02- present)
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

University of Minnesota

2018-2019 School Year: Curriculum committee, Department
PHD & WPE Evaluation committee, Department
50 Year Open House Planning Committee and Editorial Board, Department

2017-2018 School Year: Graduate admission committee, Department
PHD & WPE Evaluation committee, Department

2016-2017 School Year: Graduate admission committee, Department
PHD & WPE Evaluation committee, Department

2016-2017 School Year: Curriculum committee, Department
Graduate admission committee, Department
PHD & WPE Evaluation committee, Department
Recruiting committee, Department

2015-2016 School Year: Graduate –admission committee, Department