MIN KYUNG LEE

Assistant Professor School of Information, University of Texas at Austin minkyung.lee@austin.utexas.edu http://minlee.net

FDUCATION

Carnegie Mellon University, School of Computer Science, HCI Institute, Fall 2013

Ph.D. in Human-Computer Interaction

Sara Kiesler (co-chair), Jodi Forlizzi (co-chair), John Zimmerman, and Leila Takayama Thesis: Designing Personalization in Technology-Based Services

Carnegie Mellon University, School of Computer Science, HCI Institute, 2011

Master of Human-Computer Interaction

Carnegie Mellon University, School of Design, 2007

Master of Design in Interaction Design

Advisors: John Zimmerman, Anind K. Dey and Jodi Forlizzi

Korea Advanced Institute of Science and Technology, 2004

Bachelor of Science, Industrial Design

Summa Cum Laude

Institut National des Sciences Appliquées de Lyon, France, 2001-2002

Exchange student in Industrial Engineering (Département de Génie Productique)

RESEARCH INTERESTS

Human-computer interaction, computer-supported collaborative work, human-centered artificial intelligence, algorithmic fairness & transparency, human-robot interaction, design

HONORS & AWARDS

ACM SIGCHI CHI 2022 Best Paper Honorable Mention

ACM MobiSys 2019 Best Demo Award

Mechanism Design for Social Good (MD4SG) Workshop 2019 Popular Poster Award

ACM CSCW 2017 Best Paper Honorable Mention

Winner, NSF Cyber-Physical Systems Early-Career Investigator's (NSF-ECI) Research Competition, CPS Week 2015

Rising Stars in EECS 2015

Allen Newell Award for Research Excellence 2013

Vanderbilt Agency Conference 2012 Best Student Research Award

ACM DIS 2012 Best Paper Award

ACM/SIGCHI CHI 2011 Best Paper Honorable Mention

ACM/IEEE HRI 2010 Best Paper Award

ACM/IEEE HRI 2010 Best Video Honorable Mention

Design & Emotion 2006 Best Paper Award

Siebel Scholar, 2012-2013

Scholarship awarded for academic excellence and demonstrated leadership to 85 top students from the world's leading business, computer science, and bioengineering schools

Kwanjeong Lee Jong Hwan Scholarship, 2007-2010

Scholarship awarded annually for \$50,000 for tuition and stipend

Samsung Lee Kun Hee Scholarship, 2005-2007

Scholarship awarded annually for \$50,000 for tuition and stipend

Rotary Ambassadorial Scholar, 2005-2006

Scholarship to increase international understanding across different countries

PRIX de l'INSA-Lyon (France), 2004

Awarded President's Prize for top rated exchange students

KAIST Honorary List for Graduates, 2004

Graduated Summa Cum Laude

Government Fellowship | Korea Ministry of Science and Technology, 1999-2004

PROFESSIONAL EXPERIENCE

University of Texas at Austin

School of Information, Assistant Professor, January 2020-Present

Department of Computer Science, Graduate Studies Committee, January 2020-Present

Carnegie Mellon University

Machine Learning Department, Center for Machine Learning and Health

Research Scientist, October 2015-December 2019

School of Computer Science, HCI Institute

Postdoctoral fellow with Laura Dabbish, October 2013-September 2015

Willow Garage, Summer 2010

Visiting scholar, responsible for fieldwork on mobile remote presence in organizations

Stanford, Center for Work, Technology & Organization, Summer 2010

Visiting scholar, responsible for research on design approaches to organizational changes

Carnegie Mellon University, School of Computer Science, HCI Institute, 2006

Research assistant, responsible for ethnographic field study and design for smart home research

SK Telecom, 2004

Interaction designer, responsible for conception, prototyping, and evaluation of interface for an autonomous home robot and intelligent information services for a mobile phone

Motorola, Winter 2003

Interaction designer intern, responsible for cultural study of Korea, China, and Japan and mobile phone interface design

Philips Design in Paris, Summer 2002

Interaction designer intern, responsible for new mobile phone interface design

GRANTS

EXTERNAL GRANTS

NSF: DASS. Enabling standards- and disclosure-based regulations in and through software systems: Making algorithmic work management software accountable to law

Principal Investigator (with Sicun Gao and Daniel Schneider) \$750,000. October 2022-September 2025

NSF: CIVIC-PG. Co-creating a community platform to improve services for people on the homelessness continuum

Co-Principal Investigator (with Sherri R. Greenberg, Ken Fleischmann, and Stephen Slota) \$50,000. October 2022-September 2023

Swedish AFA Insurance: Effects of algorithmic management on work environment and health among warehouse hands and transport workers

Co-Principal Investigator (with Carin Håkansta, Maria Albin, Theo Bodin, and Emma Hagqvist) Swedish Krona 3,746,000. January 2022-December 2024

NSF: NRT-AI. Convergent, responsible, and ethical artificial intelligence training experience for roboticists (CREATE)

Co-Principal Investigator (with Junfeng Jiao, Joydeep Biswas, Justin Hart, and Luis Sentis) \$3,000,000. September 2021-August 2026

Downtown Austin Community Court: DACC's homeless service program evaluation

Co-Principal Investigator (with Sherri R. Greenberg, Ken Fleischmann, and Stephen Slota) \$269,808. September 2021-May 2023

NSF: SCC. Empowering and enhancing workers through building a community-centered gig economy

Co-Principal Investigator (with Haiyi Zhu, Gordon Burtch, Yanhua Li, and Steven Wu) \$2,000,000. October 2020-September 2023

NSF: FAI. Advancing fairness in AI with human-algorithm collaboration

Co-Principal Investigator (with Steven Wu, Alex Chouldechova, and Haiyi Zhu) \$1,037,000. January 2020-December 2023

NSF: RAPID. Trust in public health information during a pandemic

Co-Principal Investigator (with Ken Fleischmann and Bo Xie) \$194,774. May 2020-April 2021

NSF: CPS EAGER. SOCIUS: Socially responsible smart cities

Principal Investigator (with Yasser Shoukry, Vasumathi Raman, and Mani Srivastava) \$200,000. September 2016-August 2018

INTERNAL GRANTS

University of Texas at Austin

Good Systems: Designing AI to advance racial equity

Co-Principal Investigator (with Craig Watkins and Chandra Bhat) \$808,333. September 2021-August 2027

Good Systems: Designing responsible AI technology to curb disinformation

Senior Personnel (with Matthew Lease and Dhiraj Murthy) \$808,333. September 2021-August 2027

Good Systems: Smart cities should be good cities: AI, equity, and homelessness

Co-Principal Investigator (with Sherri R. Greenberg, Ken Fleischmann, and Stephen Slota) \$192,000. September 2020-August 2021

Good Systems: Inclusive and trustworthy AI governance design

Principal Investigator (with Virginia A. Brown) \$20,000. September 2020-August 2021

Healthcare Technology, Communication, and Privacy Seed: Health consumers' and clinicians' perceptions of healthcare AI: Promoting trust, privacy and shared decision-making

Principal Investigator (with Bo Xie and Joydeep Ghosh) \$16,944. January 2020-August 2021

Carnegie Mellon University

Block Center for Technology & Society: Designing fair algorithmic governance for smart community work

Principal Investigator (with Ariel Procaccia) \$30,000. June 2019-December 2019

Uptake: Collective creation of a fair allocation algorithm: Machine learning and social choice approach

Principal Investigator (with Ariel Procaccia) \$75,000. January 2018-January 2019

PUBLICATIONS

The top-tier venues in HCI research include ACM Conferences such as Human Factors in Computing Systems (CHI), Computer-Supported Cooperative Work (CSCW), Human-Robot Interaction (HRI) and Pervasive and Ubiquitous Computing (Ubicomp). CSCW transitioned to a hybrid journal structure and renamed itself Proceedings of ACM: CSCW in 2018.

I also publish my research in journals or conferences on information science, social sciences, ethical AI, AI/machine learning, and robotics.

As of September 2022, my work has 5396 citations with an h-index of 30 (Google Scholar Profile).

An asterisk* indicates equal contribution. Student advisees are underlined, and postdocs are italicized.

JOURNAL ARTICLES

- 1. Jia, C., Boltz, A., Zhang, A., Chen, A., & Lee, M. K. (2022). Understanding effects of algorithmic vs. users label on perceived accuracy of hyper-partisan misinformation. To appear in the *Proceedings of the ACM*: Human-Computer Interaction (CSCW 2022).
- 2. Slota, S. C., Fleischmann, K. R, Lee, M. K., Greenberg, S., Nigam, I., Zimmerman, T., Rodriguez, S., & Snow, J. (2022). A feeling for the data: How government and nonprofit stakeholders negotiate value conflicts in data science approaches to ending homelessness. To appear in Journal of the Association for Information Science and Technology (JASIST).
- 3. Verma, N., Fleischmann, K. R., Zhou, L., Xie, B., Lee, M. K., Rich, K., Shiroma, K., Jia, C., & Zimmerman, T. (2022). Trust in COVID-19 public health information. To appear in the *Journal of the Association for Information Science and Technology (JASIST).*

- 4. Han, S., & Lee, M. K. (2022). FAQ chatbot and inclusive learning in massive open online courses. Computers & Education, 179, Article 104395, 1-13. (Impact factor: 11.18, ranked 2 out of 267 in education & education research journals)
- 5. Tomprou, M.*, & Lee, M. K.* (2021). Employment relationships in algorithmic management: A psychological contract perspective. Computers in Human Behavior, Article 106997, 1-12. (Impact factor: 8.96, ranked 3 out of 90 experimental psychology journals) *Equal contribution
- 6. Jarrahi, M. H., Newlands, G., Lee, M. K., Wolf, C. T., Kinder, E., & Sutherland, W. (2021). Algorithmic management in a work context. Big Data & Society, 8(2), Article 20539517211020332, 1-14. (Impact factor: 8.73)
- 7. Xie, B., He, D., Mercer, T., Wang, Y., Wu, D., Fleischmann, K. R., Zhang, Y., Yoder, L. H., Stephens, K. K., Mackert, M. & Lee, M. K. (2020). Global health crises are also information crises: A call to action. Journal of the Association for Information Science and Technology (JASIST) (Impact factor: 2.687)
- 8. Lee, M. K., Kusbit, D., Kahng, A., Kim, J. T., Yuan, X., Chan, A., Noothigattu, R., See, D., Lee, S., Psomas, C. A., & Procaccia, A. (2019). WeBuildAI: Participatory framework for algorithmic governance. In Proceedings of the ACM: Human-Computer Interaction: Volume 3 Issue CSCW. (CSCW 2019). Article 181, 35 pages. 23% acceptance rate.
- 9. Lee, M. K., Jain, A., Cha, H. J., Ojha, S., & Kusbit, D. (2019). Procedural justice in algorithmic fairness: Leveraging transparency and outcome control for fair algorithmic mediation. In Proceedings of the ACM: Human-Computer Interaction: Volume 3 Issue CSCW. (CSCW 2019). Article 182, 26 pages. 23% acceptance rate.
- 10. Lee, M. K. (2018). Understanding perception of algorithmic decisions: Fairness, trust and emotion in response to algorithmic management. In Big Data & Society, 5(1). 16 pages. (Impact factor: 8.73)
- 11. Strabala, K., Lee, M. K., Dragan, A., Forlizzi, J., Srinivasa, S, Cakmak, M., & Micelli, V. (2013). Toward seamless human-robot handovers. *Journal of Human-Robot Interaction*, 2(1), 112-132.

REFEREED CONFERENCE PAPERS

- 12. Yu, E., Qin, Z., Lee, M. K., & Gao, S. (2022). Policy optimization with advantage regularization for long-term fairness in decision systems. To appear in Advances in Neural Information Processing Systems (NeurIPS 2022)
- 13. Zhang, A., Boltz, A., Wang, C., & Lee, M. K. (2022). Algorithmic management reimagined for workers and by workers: Centering worker well-being in gig work. In Proceedings of the ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2022), Article No. 14, 1-20.

Best Paper Honorable Mention

- 14. Nader, K., & Lee, M. K. (2022). Folk theories and user strategies on dating apps. In: Smits, M. (eds) Information for a Better World: Shaping the Global future. iConference 2022. Lecture Notes in Computer Science, Vol. 13192. Springer, Cham. 445-458.
- 15. Gao, R., Saar-Tsechansky, M., De-Arteaga, M., Han, L., Lee, M. K., & Lease, M. (2021). Human-AI collaboration with Bandit feedback. In Proceedings of International Joint Conference on Artificial Intelligence (IJCAI 2021). 1-8.

- 16. Lee, M. K., Nigam, I., Zhang, A., Afriyie, J., Qin, Z., & Gao, S. (2021). Participatory algorithmic management: Elicitation methods for worker well-being models. In Proceedings of the AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society (AIES 2021). 715-726.
- 17. Li, L., Lassiter, T., Oh, I., & Lee, M. K. (2021). Algorithmic hiring in practice: Recruiter and HR professional's perspectives on AI use in hiring. In *Proceedings of the AAAI*/ ACM Conference on Artificial Intelligence, Ethics, and Society (AIES 2021). 166-176. Oral presentation (Top 9.6%).
- 18. Lee, M. K. & Rich, K. (2021). Who is included in human perceptions of AI?: Trust and perceived fairness around healthcare AI and cultural mistrust. In Proceedings of the ACM/ SIGCHI Conference on Human Factors in Computing Systems (CHI 2021). 1-14.
- 19. Verma N., Shiroma K., Rich K., Fleischmann K.R., Xie B., Lee M.K. (2021) Conducting quantitative research with hard-to-reach-online populations: Using prime panels to rapidly survey older adults during a pandemic. In: Toeppe K., Yan H., Chu S.K.W. (eds) Diversity, Divergence, Dialogue. iConference 2021. Lecture Notes in Computer Science, vol 12646. Springer, Cham. 48% acceptance rate.
- 20. Kahng, A., Lee, M. K., Noothigattu, R., Procaccia, A. D., & Psomas, C. A. (2019). Statistical foundations of virtual democracy. In Proceedings of the 36th International Conference on Machine Learning (ICML 2019), 3173-3182. 23% acceptance rate.
- 21. Eslami, M., Vaccaro, K., Lee, M. K., Elazari, A., Gilbert, E., & Kahalios, K. (2019). User attitudes towards algorithmic opacity and transparency in online reviewing platforms. In Proceedings of the ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2019). Paper No. 494. 23% acceptance rate.
- 22. Kang, B., Hwang, I., Lee, J., Lee, S., Lee, T., Chang, Y., & Lee, M. K. (2018). My being to your place, your being to my place: Co-present robotic avatars create illusion of living together. In Proceedings of the 16th Annual International Conference on Mobile Systems, Applications, and Services (MobiSys 2018), 54-67. 17% acceptance rate.
- 23. Tsai, H., Shoukry, Y., Lee, M. K., & Raman, V. (2017). Towards a socially responsible smart city: Dynamic resource allocation for smarter community service. In Proceedings of the 4th ACM International Conference on Systems for Energy-Efficient Built Environments (BuildSys 2017). 31% acceptance rate.
- 24. Lee, M. K., Kim, J. T. & Lizarondo, L. (2017). A human-centered approach to algorithmic services: Considerations for fair and motivating smart community service management that allocates donations to non-profit organizations. In *Proceedings of the ACM/SIGCHI* Conference on Human Factors in Computing Systems (CHI 2017), 3365-3376. 25% acceptance rate.
- 25. Lee, M. K. & Baykal S. (2017) Algorithmic mediation in group decisions: Fairness perceptions of algorithmically mediated vs. discussion-based social division. In Proceedings of the ACM Conference on Computer-Supported Cooperative Work & Social Computing (CSCW 2017), 1035-1048. 35% acceptance rate. **Best Paper Honorable Mention**
- 26. Lee, M. K., Kim, J., Forlizzi, J., & Kiesler, S. (2015). Personalization revisited: A reflective approach helps people better personalize health services and motivates them to increase physical activities. In Proceedings of the ACM International Joint Conference on Pervasive and Ubiquitous Computing (Ubicomp 2015), 743-754. 24% acceptance rate.

- 27. Lee, M. K., Kusbit, D., Metsky, E., & Dabbish, L. (2015). Working with machines: The impact of algorithmic, data-driven management on human workers. In Proceedings of the ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2015), 1603-1612. 23% acceptance rate.
- 28. Lee, M. K., Fruchter, N., & Dabbish, L. (2015). Making decisions from a distance: The impact of technological mediation on riskiness and dehumanization. In *Proceedings of the* ACM Conference on Computer-Supported Cooperative Work (CSCW 2015), 1576-1589. 28% acceptance rate.
- 29. Lee, M. K., Kiesler, S., Forlizzi, J., & Rybski, P. (2012). Ripple effects of embedded social agents: Field study of a social robot in the workplace. In Proceedings of the ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2012), 695-704. 23% acceptance rate.
- 30. Lee, M. K., Forlizzi, J., Kiesler, S., Rybski, P., Antanitis, J., & Savetsila, S. (2012). Personalization in HRI: A longitudinal field experiment. In Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2012), 319-326. 25% acceptance rate.
- 31. Odom, W., Zimmerman, J., Davidoff, S., Forlizzi, J., Dey, A. K., & Lee, M. K. (2012). A fieldwork of the future with user enactments. In Proceedings of the ACM Conference on Designing Interactive Systems (DIS 2012). 338-347. 26% acceptance rate. **Best Paper Award**
- 32. Strabala, K., Lee, M. K., Dragan, A., Forlizzi, J., & Srinivasa, S. (2012). Learning the communication of intent prior to physical collaboration. In Proceedings of the IEEE Symposium on Robot and Human Interactive Communication (RO-MAN 2012), 968-973.
- 33. Lee, M.K. & Takayama, L. (2011). "Now, I have a body": Uses and social norms for mobile remote presence in the workplace. In Proceedings of the ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2011), 33-42. 26% acceptance rate. **Best Paper Honorable Mention**
- 34. Lee, M.K., Kiesler, S., & Forlizzi, J. (2011). Mining behavioral economics to design persuasive technology for healthy choices. In Proceedings of the ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI 2011), 325-334. 26% acceptance rate.
- 35. Cakmak, M., Srinivasa, S., Lee, M.K., Kiesler, S., & Forlizzi. J. (2011). Using spatial and temporal contrast for fluent robot-human hand-overs. In Proceedings of the ACM/IEEE International Conference on Human Robot Interaction (HRI 2011), 489-496. 22% acceptance rate.
- 36. Cakmak, M., Srinivasa, S., Lee, M.K., Forlizzi. J., & Kiesler, S. (2011). Human preferences in robot-human hand-over configurations. In Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2011), 1986-1993. 32% acceptance rate.
- 37. Lee, M.K., Kiesler, S., & Forlizzi, J. (2010). Receptionist or information kiosk? How do people talk with a robot? In Proceedings of the ACM Conference on Computer-Supported Cooperative Work (CSCW 2010), 31-40. 20% acceptance rate.
- 38. Lee, M.K., Kiesler, S., Forlizzi, J., Srinivasa, S., & Rybski, P. (2010). Gracefully mitigating breakdowns in robotic services. In Proceedings of the ACM/IEEE International Conference on Human Robot Interaction (HRI 2010), 203-210. 21% acceptance rate. **Best Paper Award**

- 39. Lee, M.K., Forlizzi, J., Rybski, P.E., Crabbe, F., Chung, W., Finkle, J., Glaser, E., & Kiesler, S. (2009). The Snackbot: Documenting the design of a robot for long-term human-robot interaction. In Proceedings of the ACM/IEEE International Conference on Human Robot Interaction (HRI 2009), 7-14. 19% acceptance rate.
- 40. Lee, M.K. & Forlizzi, J. (2009). Designing adaptive robotic services. In *Proceedings of the International Association of Societies of Design Research (IASDR 2009).*
- 41. Davidoff, S., Lee, M.K., Dey, A.K., & Zimmerman, J. (2007). Rapidly exploring application design through speed dating. In Proceedings of the International Conference on Ubiquitous Computing (Ubicomp 2007), 429-446. 19% acceptance rate.
- 42. Lee, M.K., Davidoff, S., Zimmerman, J., & Dey, A.K. (2007). Smart bag: Managing home and raising children. In *Proceedings of the International Conference on Designing Pleasurable Products and Interfaces (DPPI 2007)*, 434-437.
- 43. Lee, M.K., Davidoff, S., Zimmerman, J., & Dey, A.K. (2006). Smart homes, families and control. In Proceedings of the International Conference on Design & Emotion (D&E 2006 **Best Paper Award**
- 44. Davidoff, S., Lee, M.K., Yiu, C., Zimmerman, J., & Dey, A.K. (2006). Principles of smart home control. In *Proceedings of the International Conference on Ubiquitous Computing* (Ubicomp 2006), 19-34. 13% acceptance rate.

REFEREED EXTENDED ABSTRACTS & WORKSHOP PAPERS

- 45. Tomprou, M. & Lee, M.K. (2019). Psychological Contracts in Algorithmic Management. In Proceedings of Annual Meeting of Academy of Management (AOM 2019), Boston, USA.
- 46. Kang, B., Hwang, I., Lee, J., Lee, S., Lee, T., Chang, Y., & Lee, M. K. (2019). Towards Peripheral Awareness of Remote Family Member's Context Using Self-mobile Robotic Avatars (Demo). In Proceedings of the 17th Annual International Conference on Mobile Systems, Applications, and Services (MobiSys 2019), 677-678. **Best Demo Award**
- 47. Lee, M. K., Kusbit, D., Kahng, A., Kim, J. T., Yuan, X., Chan, A., Noothigattu, R., See, D., Lee, S., Psomas, C. A., & Procaccia, A. (2019). WeBuildAI: Participatory framework for algorithmic governance. The third workshop on Mechanism Design for Social Good (MD4SG 2019) at 20th ACM Conference on Economics and Computation (EC 2019). **Popular Poster Award**
- 48. Kang, B., Hwang, I., Lee, J., Lee, S., Lee, T., Chang, Y., & Lee, M. K. (2018). HomeMeld: Co-present Robotic Avatar System for Illusion of Living Together. In Proceedings of the 16th Annual International Conference on Mobile Systems, Applications, and Services (MobiSys 2018), 545-545.
- 49. Lee, M. K., Otto, L., Kang, V., Raman, V. & Shoukry, Y. (2016). Location-based services for homeless population. Urban Homelessness and Underserved Communities Workshop at the Eighth International Conference on Social Informatics (SocInfo 2016).
- 50. Kim, M., Lee, M.K., & Dabbish, L. (2015). Shop-i: Gaze based interaction in the physical world for in-store social shopping experience. In *Proceedings of the ACM Conference* Extended Abstracts on Human Factors in Computing Systems (CHI EA 2015), 1253-1258. 25% acceptance rate

- 51. Lee, M.K. (2011). Opportunities and challenges in mining behavioral economics to design persuasive technology. CHI 2011 PINC (Persuasion, Influence, Nudge & Coercion through mobile devices) workshop.
- 52. Lee, M.K., Tang, K. P., Forlizzi, J., & Kiesler, S. (2011). Understanding users' perception of privacy in human-robot interaction. In Late-breaking Reports of Human-Robot Interaction (HRI 2011), 181-182.
- 53. Lee, M.K., Forlizz, J., Kiesler, S., Cakmak, M., & Srinivasa, S. (2011). Predictability or adaptivity? Designing robot handoffs modeled from trained dogs and people. In Latebreaking Reports of Human-Robot Interaction (HRI 2011), 179-180.
- 54. Kim, M.S., Cha, B.K., Park, D.M., Lee, S.M., Kwak, S., & Lee, M.K. (2010). Dona: Urban donation motivating robot. In Video Session of Human-Robot Interaction (HRI 2010). **Best Video Honorable Mention**
- 55. Kim, M.S., Cha, B.K., Park, D.M., Lee, S.M., Kwak, S., & Lee, M.K. (2010). Dona: Urban donation motivating robot. In Late-breaking Reports of Human-Robot Interaction (HRI 2010), 159-160.
- 56. Lee, M.K., Dillahunt, T., Pendleton, B., Kraut, R., & Kiesler, S. (2009). Tailoring websites to increase contributions to online communities. In Extended Abstracts of Human Factors in Computing Systems (CHI EA 2009), 4003-4008.
- 57. Lee, M.K. & Makatchev, M. (2009). How do people talk with a robot: An analysis of human-robot dialogues in the real world. In Extended Abstracts of Human Factors in Computing Systems (CHI EA 2009), 3769-3774. 25% acceptance rate
- 58. Makatchev, M., Lee, M.K., & Simmons, R. (2009). Relating initial turns of human-robot dialogues to discourse. In Late-breaking Reports of Human-Robot Interaction (HRI 2009), 321-322.
- 59. Davidoff, S., Lee, M.K., Zimmerman, J., & Dey, A.K. (2006). Socially-aware requirements for a smart home for families. In *Proceedings of the International Symposium on Intelligent* Environments, 45-48.

BOOK CHAPTER

60. Lee, M.K., Davidoff, S., Zimmerman, J., & Dey, A.K. (2008). Designing for control: Finding roles for smart homes. In P. Desmet, J. van Erp, and M. Karlsson (eds.), Design & Emotion Moves (pp. 246-266). UK:Cambridge Scholars Publishing.

MAGAZINE ARTICLES

- 61. Lee, M. K. Algorithmic bosses, robotic colleagues: Toward human-centered algorithmic workplaces. (2017). In XRDS: Crossroads, The ACM Magazine for Students, 23(2), 42-47.
- 62. Simmons, R., Makatchev, M., Kirby, R., Lee, M. K., Fanaswala, I., Browning, B., Forlizzi, J., & Sakr, M. (2011). Believable robot characters. In AAAI AI Magazine, 32(4), 39-52.

PATENT

63. Min Kyung Lee, Myoung Seock Kim: Interactive Toy Set, KAIST, KR#0513261

SOFTWARE & METHOD

- 64. Socius: Collaborative application for outreach workers (http://socius.herokuapp.com)
- 65. Speed-Dating design method: A design prototyping method included in about 140 academic publications; the curricula of HCI and interaction design courses in universities including Carnegie Mellon University, KAIST, and University of Michigan; and a design method book, Universal methods of design: 100 ways to research complex problems, develop innovative ideas, and design effective solutions (Rockport Publishers, 2012)

SFRVICE

JOURNAL FDITORIAL BOARD

Human-Computer Interaction (Taylor & Francis), Associate Editor, 2021-now

ACM Transactions on Human-Robot Interaction (THRI)

Senior Associate Editor, 2021-now Associate Editor, 2017-2021

Special Issue on Unifying Human-Computer Interaction and Artificial Intelligence for Journal of Human Computer Interaction, Co-Editor, 2019-2020

CONFERENCE ORGANIZATION

ACM Conference on Fairness, Accountability, and Transparency (FAccT)

Diversity and Inclusion Chair 2021-2023 Area Chair (Program Committee) 2021

ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI)

Associate Chair (Program Committee) 2018-2019 Telepresence Chair 2017 Work-In-Progress Associate Chair 2010

Robotics: Science and Systems (RSS)

Program Committee 2017

ACM/IEEE International Conference on Human Robot Interaction (HRI)

Program Committee, Associate Chair 2015-2017 HRI Student Volunteers Co-Chair 2010

ACM Conference on Ubiquitous Computing (Ubicomp)

Associate Chair (Program Committee) 2016

Sharing Experiences Conference Co-Chair 2009

Conference co-chair. Co-organized with Jaewoo Chung (MIT Media Lab), Keywon Chung (MIT Media Lab), Jieun Hwang (Univ. of Seoul), Seonghyuck Lee (Oracle). Instructed a three day workshop on designing robotic services in conjunction with the conference.

Emergence 2007 Conference Program Committee, Carnegie Mellon University

The first conference on service design in US, which spun off Service Design Network. Responsible for coordinating reviews of paper submissions.

PANEL & WORKSHOP ORGANIZATION

ACM CSCW 2022 Workshop - Who Has an Interest in "Public Interest Technology"?: Critical Questions for Working with Local Governments and Impacted Communities Co-organizer, with Logan Stapleton (Univ. of Minnesota), Devansh Saxena (Marquette Univ.), Anna Kawakami (CMU), Tonya Nguyen (UC Berkeley), Asbjorn Ammitzboll Flugge (Univ. of Copenhagen), Motahhare Eslami (CMU), Naja Holten Moller (Univ. of Copenhagen), Shion Guha (Univ. of Toronto), Kenneth Holstein (CMU), Haiyi Zhu (CMU)

ACM CHI 2022 Panel - Participatory Design of AI Systems: Opportunities and Challenges across Diverse Users, Relationships, and Application Domains Co-organizer, with Douglas Zytko (Oakland Univ.), Pamela J. Wisniewski (Univ. of Central Florida), Shion Guha (Univ. of Toronto), and Eric P. S. Baumer (Lehigh Univ)

ACM HRI 2022 Workshop - Fairness and Transparency in Human-Robot Interaction Co-organizer, with Claure Houston (Cornell), Mai Lee Chang (UT Austin), Seyun Kim (CMU), Daniel Omeiza (Oxford), Martim Brandao (King's College London), and Malte Jung (Cornell)

ACM Intelligent User Interfaces (IUI) 2021 Workshop - TExSS: Transparency and **Explanations in Smart Systems.**

Co-organizer, with Alison Smith-Renner (Dataminr), Styliani Kleanthous (Open Univ. of Cyprus), Jonathan Dodge (Oregon State), Casey Dugan (IBM), Brian Lim (National Univ. of Singapore), Tsvika Kuflik (Univ. of Haifa), Avital Shulner-Tal (Univ. of Haifa), Advait Sarkar (Microsoft Research), and Simone Stumpf (City Univ. of London)

ACM/SIGCHI CHI 2020 Workshop - Human-Centered Approaches to Fair and Responsible AI. [Workshop website]

Lead organizer, with Nina Grgic-Hlaca (Max Planck Institute), Michael Carl Tschantz (International CS Institute), Reuben Binns (Oxford), Adrian Weller (Cambridge), Michelle Carney (Google AI), and Kori Inkpen (Microsoft Research)

ACM CSCW 2018 Workshop - The Changing Contours of Participation in Data-driven, Algorithmic Ecosystems: Challenges, Tactics, and an Agenda.

Co-organizer, with Christine T. Wolf (IBM), Haiyi Zhu (Univ. of Minnesota), Julia Bullard (Univ. of British Columbia), and Jed R. Brubaker (Univ. of Colorado Boulder)

ACM/SIGCHI CHI 2016 Panel - Algorithmic Authority: The Ethics, Politics, and Economics of Algorithms that Interpret, Decide, and Manage

Co-organizer, with Caitlin Lustig (UC Irvine), Katie Pine (UC Irvine), Bonnie Nardi (UC Irvine), Lilly Irani (UC San Diego), Dawn Nafus (Intel), and Christian Sandvig (Univ. of Michigan)

ACM CSCW 2016 Workshop - Algorithms at Work

Co-organizer, with Susann Wagenknecht (Univ. of Siegen), Caitlin Lustig (UC Irvine), Jacki O'Neill (Microsoft), and Himanshu Zade (Univ. of Washington)

Global Service Jam 2012

Co-organizer, with Lauren Champman and Abby Wilson (Maya Design); Mark Choi, Hakon Faste, Ian Hargraves, Miso Kim, and Chongho Lee (CMU School of Design), and Gabriella Marcu (CMU HCI Institute).

HRI Pioneers Workshop 2010

Co-organizer, with Kate Tsui (UML), Henriette Cramer (Univ. of Amsterdam), Osawa Hirotaka (Keio Univ.), Laurel Riek (Cambridge), Satoru Satake (ATR), Kristen Stubbs (iRobot), and Ja-Young Sung (Georgia Tech).

REVIEWING

Journals Artificial Intelligence Journal (Elsevier) 2020

Law and Society Review 2020

Nature Human Behavior 2019

Big Data & Society 2017-2021

Journal of Computer-Mediated Communication 2016-2017, 2020

ACM Transactions on Computer-Human Interaction (ToCHI) 2016

International Journal of Social Robotics 2010-2017

IEEE Pervasive Computing 2014-2015

Journal of Human-Robot Interaction 2012, 2015

ACM Transactions on Interactive Intelligent Systems 2011

Interaction Studies 2011

Journal of Behavioral Robotics 2010

International Journal of Design 2010

Conferences ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI) 2009-2022

ACM/IEEE International Conference on Human Robot Interaction (HRI) 2009-2018

ACM Conference on Computer-Supported Cooperative Work & Social Computing (CSCW)

2015-2017, 2019-2022

ACM Conference on Designing Interactive Systems (DIS) 2012, 2016, 2019

ACM Conference on Ubiquitous Computing (Ubicomp) 2016

IEEE Pervasive Magazine 2014-2015

Graphics Interface 2011

International Journal of Design 2010

Grants National Science Foundation 2016, 2018, 2020, 2021

Royal Society of New Zealand-Marsden Fund 2016

DEPARTMENTAL SERVICE

Undergraduate Studies Committee, 2022-2023

Faculty Search Committee, 2021-2023

Colloquium Committee, 2020-2022

Doctoral Studies Committee, 2020-2021

VOLUNTEERING

Reviewer for National Center for Women Information Technology Award for Aspirations in Computing 2009

Student volunteer

CHI 2009, Service Design Network 2010, HRI 2011, HRI 2012

INVITED TALKS & PANELS

- 1. Invited Keynote at the Augmented Intelligence at Work Symposium, Hanover, Germany. October 5, 2022.
- 2. Invited Keynote at The Image Conference, Austin, TX. September 29, 2022. *Towards a* participatory approach for metaverse governance: Lessons from WeBuildAI.
- 3. University of Oxford, Oxford, United Kingdom. May 19, 2022. Participatory algorithmic management.
- 4. Illinois Institute of Technology, Dr. Frederica Darema Lecture Series in Computer Science, Chicago, IL. April 27, 2022. Enabling participatory and procedurally-fair AI.
- 5. INFORMS 2021 Invited Session on Participatory Specification of Trustworthy Machine Learning. October 27, 2021.
- 6. The AI Korea. October 1, 2021. Responsible and fair AI: Human-centered approaches.
- 7. The 35th International Workshop on New Technologies and Work (NeTWork): Safety in the Digital Age. September 17, 2021. Centering worker well-being in Algorithmic Management: A worker well-being model approach.
- 8. Invited Keynote at The International Conference on Women Scientists and Engineers on Biotechnology, Information Technology, Energy Technology, and Nano Technology (BIEN), August 19, 2021. Enabling participatory and procedurally-fair AI.
- 9. Korea Advanced Institute of Science and Technology, Graduate School of AI Colloquium, June 10, 2021. Enabling participatory and procedurally-fair AI
- 10. Pusan National University, Graduate School of AI seminar series, April 8, 2021. Enabling participatory and procedurally-fair AI
- 11. UT Austin Pop-Up Institute: Beyond Future of Work's Panel on Workers at the Center, June 2, 2021.
- 12. Biomedical Big Data Seminar Course. Panel on Fairness in Machine Learning: Applications, Methods, and AI for Social Good, April 21, 2021.
- 13. Austin Forum. Panel on Fair Transparent AI: Lessons from UT Austin's Good Systems Grand Challenge, April 20, 2021.
- 14. Cyprus Center for Algorithmic Transparency (CyCAT) Seminar Series. March 26, 2021. Enabling participatory and procedurally-fair AI
- 15. National Academies of Sciences, Engineering and Medicine Panel for Responsible Computing-Computing for Work/Labor. March 11, 2021. Centering worker well-being in AI integrated workplaces.

- 16. Seoul Institute Seminar, December 3, 2020. Towards fair smart cities
- 17. The 6th World Humanities Forum, November 20, 2020. Fair and participatory AI
- 18. UT Austin Center for Analytics and Transformative Technologies (CATT) 2020 Global Analytics Summit: Ethics in AI Conference. Panel on Ethics-Aware Design of AI, November 19, 2020. AI for all: Enabling participatory and procedurally-fair AI
- 19. UT Austin Good Systems Panel for AI and the Future of Racial Justice. November 6, 2020. *Centering racial equity in AI fairness*
- 20. TxHCI Seminar organized by Texas A&M, UT Arlington, and UT Austin. October 30, 2020. *Fair and participatory AI*
- 21. Seoul National University, Data Science Seminar. October 21, 2020. AI for all: Enabling participatory and procedurally-fair AI
- 22. UT Austin Texas Global Dialogues: Artificial Intelligence. October 12, 2020. Invited panelist
- 23. Assured Autonomy Workshop. Army Research Office sponsored workshop, June 24, 2020. *Responsible autonomy: Enabling participatory and procedurally-fair AI*
- 24. University of California, San Diego, Department of Computer Science and Engineering, La Jolla, CA. March 4, 2020. *AI for all: Enabling participatory and procedurally fair AI*
- 25. Korea Advanced Institute of Science and Technology, Daejon, Korea. December 23, 2019. *AI for all: Enabling fairness and participation in AI*
- 26. Simons Institute for the Theory of Computing, University of California, Berkeley, Workshop on Recent Developments in Research on Fairness, Berkeley, CA. July 8, 2019. Procedural justice in algorithmic fairness: Transparency, control and participation perspectives
- 27. HCI Consortium (HCIC) Workshop on the Futures of Work, Watsonville, CA. June 26, 2019. *Algorithmic management: A mechanism of control or empowering device*
- 28. Collective Intelligence, Pittsburgh, PA. June 14, 2019. WeBuildAI: Participatory framework for algorithmic governance
- 29. University of Texas at Austin, School of Information, Austin, TX. April 12, 2019. *Designing people-centered AI*
- 30. University of California, Santa Cruz, Computational Media Department, Santa Cruz, CA. March 11, 2019. *Designing people-centered AI*
- 31. Stanford, Computer Science Department, Seminar on People, Computers and Design, Palo Alto, CA. January 18, 2019. *WeBuildAI: Participatory framework for algorithmic governance*
- 32. Carnegie Mellon University, HCI Institute, Pittsburgh, PA. April 2, 2018. *Toward fair and trustworthy algorithms*
- 33. Rice University, Department of Computer Science, Houston, TX. March 22, 2018. *Toward fair and trustworthy algorithms*
- 34. University of Pittsburgh, School of Computing, Pittsburgh, PA. March 19, 2018. *Toward fair and trustworthy algorithms*

- 35. University of California, Irvine, School of Information, Irvine, CA. March 12, 2018. *Toward fair and trustworthy algorithms*
- 36. University of Maryland, Information School, College Park, MD. March 5, 2018. *Toward fair and trustworthy algorithms*
- 37. Penn State University, College of Information Sciences & Technology, State College, PA. February 27, 2018. *Toward fair and trustworthy algorithms*
- 38. University of Minnesota, Computer Science & Engineering, Minneapolis, MN. February 23, 2018. *Toward fair and trustworthy algorithms*
- 39. NSF Workshop on Trustworthy Algorithmic Decision-Making, Arlington, VA. December 4, 2017. *Toward fair and trustworthy algorithms*
- 40. Psychology of Technology Conference, University of California, Berkeley, CA. November 3, 2017. *Toward fair and trustworthy algorithms*
- 41. Society for the Advancement of Socio-Economics (SASE) Conference, University of California, Berkeley, Berkeley, CA. June 25, 2016. Working with machines: The impact of algorithmic, data-driven management on human workers
- 42. University of California, Berkeley, School of Information, Berkeley, CA. April 7, 2016. *Unpacking the potential of algorithms in human matters*
- 43. Harvard University, Berkman Center for Internet and Society, Boston, MA. November 10, 2015. *Unpacking the potential of algorithms in human matters*
- 44. Rising Star in EECS, MIT, Boston, MA. November 9, 2015. *Unpacking the potential of algorithms in human matters*
- 45. Carnegie Mellon University, HCI Institute, Pittsburgh, PA. October 30, 2015. *Unpacking the potential of algorithms in human matters*
- 46. NSF Early-Career Investigator's Workshop on CPS in Smart Cities, Seattle, WA. April 13, 2015. Designing human-centered cyber-physical systems: Algorithmic management and mediated decision-making
- 47. University of Michigan, School of Information, Ann Arbor, MI. October 28, 2014. Designing the future of work: Understanding the impact of intelligent machines on management, collaboration, and decision-making

TFACHING EXPERIENCE

University of Texas at Austin

Human-Artificial Intelligence Interaction (Graduate), School of Information Instructor, Spring 2020, Fall 2020, Spring 2021, Spring 2022

Introdution to User Experience Design (Undergraduate), School of Information Instructor, Fall 2021, Fall 2022

Carnegie Mellon University

Interpretable Machine Learning, HCI Institute Guest lecturer (Social Considerations for Algorithmic Fairness), Spring 2019 Artificial Intelligence for Public Policy, College of Information Systems & Public Policy Guest lecturer (*Understanding & Designing Algorithmic Management*), Fall 2018

Integrated Intelligence in Robotics: Vision, Language, and Planning, Robotics Institute Guest lecturer (*Methods for Studying Human-AI Interaction*), Spring 2018

Programming Usable Interfaces, HCI Institute

Guest lecturer (Design of Future Robotic Services), Spring 2018

Environments Studio II: Designing Environments for Interaction, School of Design Guest lecturer (*Designing Fair Algorithmic Services*), Spring 2017

Human Factors, HCI Institute

Guest lecturer. Organized a session on physiological and consumer-graded neurological sensors for human factors studies with Laura Dabbish, Spring 2015

Applied Research Methods, HCI Institute

Guest lecturer. Organized a session on physiological and consumer-graded neurological sensors as a research tool with Sara Kiesler, Fall 2014

Service Design, School of Design

Guest lecturer. Led design critiques and gave a lecture on adaptive service design, Fall 2012

Design Seminar, School of Design

Guest lecturer. Gave a lecture on the role of theory in design, Spring 2011

Basic Interaction Design, HCI Institute

Teaching Assistant with Eric Paulos and Peter Scupelli, Spring 2010

HCI Method, HCI Institute

Teaching Assistant with John Zimmerman and Aniket Kittur, Fall 2009

Basic Interaction Design, School of Design

Guest lecturer. Gave a lecture on the speed dating design method with Jodi Forlizzi, Fall 2009

Advanced Interface Design, School of Design Teaching Assistant with Jodi Forlizzi, Fall 2006

ADVISING

PHD ADVISOR/COMMITTEE CHAIR

University of Texas at Austin

Primary Advisor

Angie Zhang (Information)

Jonathan Lynn (Information)

Co-Advisor

Houjiang Liu (Information), Co-advise with Matthew Lease

MS ADVISOR/COMMITTEE CHAIR

University of Texas at Austin

Ishan Nigam (Computer Science)

Varshinee Sreekanth (Computer Science)

Joel Afriyie (Computer Science), Graduated in 2021

Thesis: "Equitable algorithmic resource allocation: Examining and mitigating racial disparities in crisis standards of care during COVID-19"

PHD STUDENT DISSERTATION COMMITTEE MEMBER

University of Texas at Austin

Liyan Tang (Information) 2021-now

Chongyan Chen (Information) 2020-now

Anubrata Das (Information) 2020-now

Eunhye Ko (Education) 2022-now

Songhee Han (Education) 2022-now

Yi-Hsuan Hsieh (Computer Science) 2021-now

Anastazja Harris (Communication Studies) 2021-now

Chenyan Jia (Journalism) 2020-2022

PHD RESEARCH ADVISING/GENERAL EXAM COMMITTEE MEMBER

Massachusetts Institute of Technology

Dan Calacci (Media Lab) 2021-now

University of Michigan, Ann Arbor

Divya Ramesh (Computer Science & Engineering) 2020-now

University of Wisconsin-Madison

Christine Lee (Computer Science) 2022-now

MS RESEARCH ADVISING

University of Texas at Austin

Apoorva Gondimalla (Information) 2022-now

Vasudha Singh (Information) 2022-now

Elizaveta Kravchenko (Information) 2021-now

Chun-Wei Chung (Information) 2021-2022

Kate Rich (Communication Studies) 2020-2021, now UW PhD student

Janet Dai (Information) 2020-2021, now at Yahoo

Lan Li (Information) 2020, now UNC PhD student

Joohee Oh (Information) 2020

Tina Lassiter (Information) 2020, now UT Austin PhD student

Carnegie Mellon University (Students with publications)

Anuraag Jain (Computer Science & HCI) 2016-2017, now at Zensors

Lisa Otto (Design) 2016-2017, now at Rize

Mirae Kim (HCI) 2014, now at World Bank Groups

UNDERGRADUATE RESEARCH ADVISING

University of Texas at Austin

Bianca Talabis (Information) 2022-now

Govind Joshi (Computer Science) 2022-now

Marshana Taylor (Information) 2022-now

Daisy Pinaroc (Information) 2022-now

Madison Liao (Sociology) 2022-now

William Shi (Plan II) 2022-now

Oswaldo Ceballos (Statistics) 2021-now

Alex Boltz (Government) 2020-now

Anqing Chen (Electrical & Computer Engineering) 2020-2022, now at Google

Mahathi Chillara (Computer Science) 2020-2021, now at Meta

Devina Parihar (Electrical & Computer Engineering) 2020-2021, now at Disney

Aashna Lal (Plan II) 2020-2021

Colin Phillips (Electrical & Computer Engineering) 2020-2021

Levi Villarreal (Computer Science) 2020-2021, now at Figma

Carnegie Mellon University (Students with publications)

Xinran Yuan (Information Systems & HCI) 2018-2019

Daniel Kusbit (Ethics, History & Public Policy) 2014-2015, 2018, now at American Eagle

Allissa Chan (Design) 2018

Daniel See (Decision Sciences & Art) 2018

Siheon Lee (Information Systems) 2018

Ji Tae Kim (Design) 2016-2018, now at Instagram

Shashank Ojha (Computer Science) 2017

Grace Cha (Design) 2017, now at Capital One

Vincent Kang (Computer Science) 2016-2017, now at Meta

Nathaniel Fruchter (Decision Sciences) 2014-2016, Master's degree at MIT, now at Google

Su Baykal (HCI & Cognitive Psychology) 2014-2016, now at Etsy

Evan Metsky (HCI & Cognitive Psychology) 2014-2015, Master's degree in the University of Michigan, now at Chegg

SELECTED PRESS

Algorithms & Robots in the Workplace

How Uber drivers feel about being managed by machines in Forbes, May 2018 [Link]

Artificial intolerance in MIT Technology Review, March 2016 [Link]

On-demand workers unite online to fight Uber and the gig economy in **New Scientist**, December 2015 [Link]

When your boss is an Uber algorithm in MIT Technology Review, December 2015 [Link]

Detest Uber's surge pricing? Some drivers don't like it either in CNET, August 2015 [Link]

How Uber surge pricing really works in the Washington Post, April 2015 [Link]

When your boss wears metal pants in **Harvard Business Review**, June 2015 [Link]

How robots will work with us isn't only a technological question in Harvard Business Review, March 2014 [Link]

Why it's bad to be a robot on the phone in **The Atlantic**, November 2014 [Link]

Polite robot overlords will be more persuasive in IEEE Spectrum, March 2013 [Link]

How a robot can replace you at work - and how it can't in New Scientist, March 2011 [Link]

Just like Mombot used to make in **New York Times**, February 2010 [Link]

Snackbot: Polite host, research platform, vending machine on CNET, October 2009 [Link]

The new Pittsburgh on CBS National News (Television), September 2009 [Link]

Smart Bag

Designing interactive systems: People, activities, contexts, technologies (Book), 2009 David Benyon, Phil Turner, and Susan Turner. Addison Wesley.

Mobile technology for children: Designing for interaction and learning (Book), 2009 Allison Drulin. Morgan Kaufmann

The Kindness Lab in **Spirit Magazine**, 2008

Speed Dating Design Method Universal methods of design: 100 ways to research complex problems, develop innovative ideas, and design effective solutions (Book), 2012

Bruce Hanington, Bella Martin. Rockport Publishers.

INVITED RESEARCH FORUMS

NSF Workshop on Trustworthy Algorithmic Decision-Making

Arlington, VA. December 2017

NIST & US Ignite Global City Team Challenge Expo

Washington D.C. June 2015

NSF Early-Career Investigator's Workshop on Cyber-Physical Systems in Smart Cities Seattle, WA. April 2015

NSF/CRA 2025 The New Making Renaissance Workshop

Napa Valley, CA. June 2014

NSF Early-Career Professionals' Workshop on Exploring New Frontiers in Cyber-Physical Systems

Washington D.C. March 2014

Google GRAD Forum

Google, Mountain View, CA. January 2012

Summer Institute, Consortium for the Science of Sociotechnical Systems Captiva Island, FL. June 2011

NSF-JST joint workshop on social remote presence

Palo Alto, CA. November 2010