

RESEARCH INTERESTS

Robots for Social Good, Human-Robot Interaction, Health Informatics, Social Informatics, User Experience (UX) Design

ACADEMIC APPOINTMENTS

Michigan State University
Assistant Professor

Aug. 2019 - current

University of California San Diego
Postdoctoral Scholar in Computer Science and Engineering

Nov. 2017 - Jul. 2019
Supervisor: Laurel Riek

Indiana University
PhD in Informatics (Social Informatics track)
Thesis: Collaborative Design of Intelligent Technologies

Aug. 2011 - Nov. 2017
Advisor: Selma Šabanović

Georgia Institute of Technology
MS in Human-Computer Interaction

Aug. 2009 - May 2011
Advisor: Rebecca Grinter

Georgia Institute of Technology
MS in Digital Media

Aug. 2007 - May 2009
Advisor: Carl DiSalvo

AWARDS

CSCW Best Paper Award 2021 (top 1% of submissions)

CSCW Best Paper Honorable Mention 2019 (top 5% of submissions)

HRI Best Paper Honorable Mention 2019 (top 5% of submissions)

Rob Kling Social Informatics Fellowship 2015

UbiComp Best Paper Honorable Mention 2013 (top 5% of submissions)

CHI Best Paper Honorable Mention 2012 (top 5% of submission)

RESEARCH GRANTS

2022 National Science Foundation: Future of Work. Efficient Inspection of Unpiggable Pipelines through Human-Robot Integration. \$150,000 over 1 year. Co-PI with Xiaobo Tan as PI.

2022 Trifecta Initiative Facilitating Funds Award. AI Supported Health Misinformation Management. \$8,000. Co-PI with Wei Peng as PI.

2021 Institute of Museum and Library Services (IMLS); National Leadership Grants for Libraries. Library as a community catalyst empowering low-income youth to cultivate symbiotic relationships between Artificial Intelligence (AI) and local industry. \$249,999 over 2 years. PI with Kahyun Choi as Co-PI.

2021 NIH/MCUAAAAR; Junior Faculty Research Mentoring Funding. Social Robots for the mental health management of a low-income African American in Flint. \$27,000 over a year. PI

2019 National Science Foundation: Smart and Connected Health. Training for Independent Living through Observant Robots and Design. Award Number:1915734. \$1,200,000 over 4 years. Senior Personnel with Laurel Riek as PI

PUBLICATIONS

JOURNAL PUBLICATIONS

- THRI 2022 **Lee, H. R.**, Riek, L. D.
“Designing Robots for Aging: Wisdom as a Critical Lens”
ACM Transactions on Human-Robot Interaction (THRI), 2022
- CSCW 2021 **Best Paper Award (top 1% of submissions)**
Shin, J. Y., Chaar, D., Davis, C. E., Choi, S., **Lee, H. R.**
“Every Cloud Has a Silver Lining: Exploring Experiential Knowledge of Family Caregivers.”
Proceedings of the ACM on Computer-Supported Cooperative Work and Social Computing (CSCW), 2022.
- CSCW 2019 **Best Paper Honorable Mention (top 5% of submissions)**
Lee, H. R.*, Taylor, A.*, Kubota, A., Riek, L. D. *Angelique Taylor and Hee Rin Lee contributed equally.
“Coordinating Clinical Teams: Using Robots to Empower Nurses to Stop the Line.”
ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW), 2019.
24% acceptance rate
- THRI 2018 **Invited to Present at HRI 2018 in a Special Session**
Lee, H. R., Riek, L. D.
“Reframing Assistive Robots to Promote Successful Aging.”
ACM Transactions on Human-Robot Interaction (THRI), 2018
- AJRT 2018 Piatt, J., Nagata, S., Šabanović, S., Cheng, W. L., Bennett, C., **Lee, H.R.**, Hakken, D.
“Companionship with a robot? Therapists’ perspectives on socially assistive robots as therapeutic.”
interventions in community mental health for older adults.”
American Journal of Recreation Therapy, 2018.
- SBDA 2007 Lee, H.R., Jang, S.
“Potential and application of everyday tools as TUIs - focused on interactive art.”
Society of Basic Design & Art, 2007

REFEREED CONFERENCE PROCEEDINGS

- CHI 2022 Shin, J. Y., Peng, W., **Lee, H. R.**
“More than Bedtime and the Bedroom: Sleep Management as a Collaborative Work for the Family.”
ACM Conference on Human Factors in Computing Systems (CHI), 2022.
- HRI 2022 **Lee, H. R.**, Cheon, E., Lim, C. Y., Kerstin Fischer
“Configuring Humans: What Roles Humans Play in HRI Research.”
ACM/IEEE Conference on Human-Robot Interaction (HRI), 2022.
22% acceptance rate
- HRI 2019 **Best Paper Honorable Mention (top 5% of submissions)**
Moharana, S., Panduro, A., **Lee, H. R.**, Riek, L. D.
“Robots for Joy, Robots for Sorrow: Community Based Robot Design for Dementia Caregivers.”
ACM/IEEE Conference on Human-Robot Interaction (HRI), 2019
24% acceptance rate
- CHI 2017 **Lee, H. R.**, Šabanović, S., Kwak, S. S.
“Collaborative map making: A reflexive method for understanding matters of concern in design research.”
ACM Conference on Human Factors in Computing Systems (CHI), 2017
25% acceptance rate

- HRI 2017 **Lee, H. R.**, Šabanović, S., Chang, W. L., Nagata, S., Piatt, J., Bennett, C., Hakken, D.
 “Steps toward participatory design of social robots: mutual learning with older adults with depression.”
ACM/IEEE Conference on Human-Robot Interaction (HRI), 2017
 24% acceptance rate
- Ro-Man 2016 **Lee, H.R.**, Haodan, T., Šabanović, S.
 “That robot is not for me: addressing stereotypes of aging in assistive robot design.”
IEEE Symposium on Robot and Human Interactive Communication (Ro-Man), 2016.
- CHI 2014 **Lee, H.R.**, Šabanović, S., Stolterman, E.
 “Stay on the boundary: artifact analysis exploring researcher and user framing of robot design.”
ACM Conference on Human Factors in Computing Systems (CHI), 2014
 23% acceptance rate
- HRI 2014 **Lee, H.R.**, Šabanović, S.
 “Culturally variable preferences for robot design and use in South Korea, Turkey, and the United States.”
ACM/IEEE Conference on Human-Robot Interaction (HRI), 2014.
 24% acceptance rate
- UbiComp 2013 **Best Paper Honorable Mention (top 5% of submissions)**
Lee, H.R., Šabanović, S.
 “Weiser's dream in the Korean home: collaborative study of domestic roles, relationships, and ideal technologies.”
ACM Conference on Ubiquitous computing (UbiComp), 2013
 23% acceptance rate
- CHI 2012 **Best Paper Honorable Mention (top 5% of submissions)**
 Parker, A., Kantroo, V., **Lee, H.R.**, Osornio, M., Sharma, M., Grinter, R.
 “Health promotion as activism: building community capacity to effect social change.”
ACM Conference on Human Factors in Computing Systems (CHI), 2012.
 23% acceptance rate
- Ro-Man 2012 **Lee, H.R.**, Sung, J., Šabanović, S., Han, J.
 “Cultural design of domestic robots: A study of user expectations in Korea and the United States.”
IEEE Symposium on Robot and Human Interactive Communication (Ro-Man), 2012.
- AMIA 2011 Lee, E. K., **Lee, H.R.**, Quarshie, A.
 “SEACOIN—An investigative tool for biomedical informatics researchers.”
American Medical Informatics Association Annual Symposium (AMIA), 2011.
- Pervasive Health 2010 Yun, T.J., Jeong, H.Y., **Lee, H.R.**, Arriaga, R.I., Abowd, G.
 “Assessing asthma management practices through in-home technology probes.”
ACM Conference on Pervasive Computing Technologies for Healthcare (Pervasive Health), 2010.

WORKSHOP PUBLICATIONS, EXTENDED ABSTRACTS & POSTERS

- HRI 2022 Abdi, M., Hamp, E., Oistad, W., Shin, J. Y., and **Lee, H.R.**
 “Gamer Breakbots: Exploring robots as a way for gamers to alleviate potential health issues.”
ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2022
- CSCW 2021 Cheon, E., Zaga, C., **Lee, H.R.**, Lupetti, M.L., Dombrowski, L. and Jung, M.F.
 “Human-Machine Partnerships in the Future of Work.”
ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2021
- HRI 2019 **Lee, H. R.**, Cheon, E., De Graaf, M., Alves-Oliveira, P., Zaga, C., & Young, J.
 “Robots for social good: exploring critical design for HRI.”
ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2019

- HRI 2019 **Lee, H. R.**, Cheon, E., De Graaf, M., Alves-Oliveira, P., Zaga, C., & Young, J.
 "Robots for social good: exploring critical design for HRI."
 ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2019
- AAAI 2016 **Lee, H.R.**, Šabanović, S., Stolterman, E.
 "How humanlike should a social robot be: a user-centered exploration."
 AAAI Spring Symposium on Enabling Computing Research in Socially Intelligent Human-Robot Interaction.
- HRI2014 Šabanović, S., Bennett, C., **Lee, H.R.**
 "Towards culturally robust robots: a critical social perspective on robotics and culture."
 Culture-Aware Robotics Workshop at the *ACM/IEEE Conference on Human Robot Interaction (HRI)*, 2014.
- CHI 2013 **Lee, H.R.**, Šabanović, S., Hakken, D.
 "Cultural design of domestic robot with participatory design."
 Methods for Studying Technology in the Home Workshop at the *ACM Conference on Human Factors in Computing Systems (CHI)*, 2013.
- CHI 2010 **Lee, H.R.**, Panont, W.R., Plattenburg, B., de la Croix, J.P., Patharachalam, D. and Abowd, G.
 "Asthmon: empowering asthmatic children's self-management with a virtual pet."
ACM Conference Extended Abstracts on Human Factors in Computing Systems (CHI), 2010.
- AAAI 2010 Hwang, J.Y., Shim-Lee, J., **Lee, H.**
 "Designing a visual analytic system to represent bookmark sharing data."
 Visual Representations and Reasoning Workshop at the *AAAI Conference on Artificial Intelligence* 2010.
- CHI 2009 **Lee, H.R.**, DiSalvo, C.
 "Connected space."
ACM Conference Extended Abstracts on Human Factors in Computing Systems (CHI), 2009.

PROFESSIONAL EXPERIENCE

Computer Science and Engineering, UC San Diego, USA Postdoctoral Scholar	2017 - 2019
Informatics, Indiana University, USA Associate Instructor	2011 - 2017
NAVER Corporation, South Korea Consultant for Emerging Technologies	2016
Industrial Design, Ewha Womans University, South Korea Visiting Scholar	2014, 2016
Center for Operations Research in Medicine and HealthCare, Georgia Institute of Technology, USA Research Assistant	2009 - 2011
Digital Media, Georgia Institute of Technology, USA Research Assistant	2007

INVITED TALKS

From Labor-Displacing to Labor-Reinstating: Exploring Production Workers' Experience with Collaborative Robots Labor Tech Speaker Series	2022
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From Labor-Displacing to Labor-Reinstating: Exploring Production Workers' Experience with Collaborative Robots The Evolution and Future of Work Speaker Series	2022
Robots for Aging: Robot Design to Support Inclusion and Wellness Asian Conference on Aging & Gerontology (AGen)	2021
Making the invisible visible in robot design for aging Social Robots for Health and Well-being in Ageing Societies	2017
Participatory Design for Assistive Robots IBM Research	2017
Grounded Theory for Social Robot Design Industrial Design Seminar, Ewha Womans University, South Korea	2014
Culturally Situated Domestic Robot Telerobotics and Control Laboratory, KAIST, South Korea	2013
Culturally Situated Robot Design Industrial Design Seminar, Ewha Womans University, South Korea	2013

TEACHING EXPERIENCE

MI350 Evaluating Human-Centered Technology Michigan State University Instructor	2000 - 2022
MI484 Human-Robot Interaction Michigan State University Instructor	2020 - 2022
MI834 Usability and Accessibility: Design and Evaluation Michigan State University Instructor	2022
STS 5974 Independent Study on Social Robotics Virginia Tech Guest Lecturer	2016
I502 Human Centered Research Methods Indiana University Teaching Assistant	2015 - 2016
I202 Intro. to Social Informatics Indiana University Co-Instructor	2016
I440/H440/I540 Human Robot Interaction Indiana University Teaching Assistant	2015 - 2016
CS 3790 Cognitive Science Georgia Institute of Technology Teaching Assistant	2009
User Interface Design Sungshin Women's University Teaching Assistant	2007
Typography Sungshin Women's University Teaching Assistant	2005

STUDENT MENTORING

GRADUATE STUDENTS

Ji Youn Shin, Media and Info PhD student, Michigan State Univ. (currently Assistant Professor at U of Minnesota)	2019 - 2022
Sue Lim, Communication PhD student, Michigan State Univ.	2020 - current
Elisavet Averkiadi, Media and Information PhD student, Michigan State Univ.	2020 - current
Pooja Malvi, Media and Information Masters student, Michigan State Univ.	2021 - current
Joe Kubeshesky, Media and Information Masters student, Michigan State Univ.	2022 - current
Tongxin Li, Media and Information Masters student, Michigan State Univ.	2019 - 2021
Valentina Oram, Media and Information Masters student, Michigan State Univ.	2020 - 2021
Renu Singh, Computer Science Masters student, UC San Diego	2018
Jeremy Smith, Computer Science Masters student, UC San Diego	2018
Teofilo Zosa, Computer Science PhD student, UC San Diego	2017 - 2018

UNDERGRADUATE STUDENTS

Emily Lin, Experience Architecture Undergraduate, Michigan State Univ.	2019 - 2022
Catherine Davis, Information Science Undergraduate, Michigan State Univ.	2019 - 2020
Sanika Moharana, Cognitive Science Undergraduate, UC San Diego	2017 - 2019
Alejandro Panduro, Cognitive Science Undergraduate, UC San Diego	2017 - 2019
Astha Mehta, Cognitive Science Undergraduate, UC San Diego	2017 - 2019
June Park, Cognitive Science Undergraduate, UC San Diego	2017
Kayoung Cho, Informatics Undergraduate, Indiana University	2017
Ying Hong, Informatics Undergraduate, Indiana University	2016
Jeron Braxton, Informatics Undergraduate, Indiana University	2015

PROFESSIONAL ACTIVITIES

PROGRAM COMMITTEE

Human-Robot Interaction 2019 - 2020, 2022 - 2023

DIS 2022

Participatory Design Conference 2018

ORGANIZER

HRI 2023 alt.HRI Chair

Ro-Man 2023 Video Chair

CSCW 2022 Workshop on Human-Machine Partnership in the Future of Work

HRI 2019 Workshop on Social Robots in Therapy and Care

HRI 2019 Workshop on Robots for Social Good: Exploring Design for HRI

HRI 2018 Workshop on Social Robots in Therapy: focusing on Autonomy and Ethical Challenges

Publicity Chair of HRI Pioneers Workshop 2016

PANEL

Social Human-Robot Interaction of Human-Care Service Robots at HRI 2019

Social Human-Robot Interaction of Human-Care Service Robots at HRI 2018

Robot Design Workshop at Ubiquitous Robots and Ambient Intelligence 2017

REVIEWER

Journal

BMJ open

Science, Technology, & Human Values (STHV)

ACM Transactions on Human-Robot Interaction (THRI)

IEEE Transactions on Human-Machine Systems

IEEE Robotics and Automation Magazine

Elsevier Journal of Computers in Human Behavior

Springer International Journal of Social Robotics

Assistive Technology

Conference

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

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

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

ACM Conference on Participatory Design Conference (PDC)

ACM Interaction Design and Children (IDC)

ACM Conference on Designing Interactive Systems (DIS)

ACM Conference on Human Agent Interaction (HAI)

IEEE Conference on Ro-Man