

# Min Kyung Lee

Human-Computer Interaction Institute  
Carnegie Mellon University  
Pittsburgh PA 15213-3890 USA

Mobile 412 527 7396  
mklee@cs.cmu.edu  
<http://www.cs.cmu.edu/~mklee>

## EDUCATION

**Carnegie Mellon University**, 2007-present  
Ph.D. Candidate in Human-Computer Interaction  
Advisors: Professors Jodi Forlizzi and Sara Kiesler

**Carnegie Mellon University**, 2005-2007  
Master of Design in Interaction Design  
Advisors: Professors John Zimmerman, Anind K. Dey and Jodi Forlizzi

**Korea Advanced Institute of Science and Technology**, 1999-2004  
Bachelor of Science, Industrial Design  
Summa Cum Laude

**Institut National des Sciences Appliquees de Lyon, France**, 2001-2002  
Exchange student in Département de Génie Productique

## PROFESSIONAL EXPERIENCE

**Willow Garage**, Summer 2010  
Visiting scholar, responsible for fieldwork on mobile remote presence in organizations

**Center for Work, Technology & Organization, Stanford**, Summer 2010  
Visiting scholar, responsible for research on design approaches to organizational changes

**Carnegie Mellon University, HCII**, 2006  
Research assistant, responsible for ethnographic field study and user testing for smart home research

**SK Telecom, CITF**, 2004  
User interface designer, responsible for conception, designing, prototyping, and evaluation of user interface for an autonomous home robot and intelligent information services for a mobile phone

**Motorola, CXD**, Winter 2003  
Intern, responsible for cultural study of Korea, China, and Japan and GUI design for mobile phones

**Philips Design in Paris**, Summer 2002  
Intern, responsible for conception of new interface and GUI design for mobile phones

## BOOK CHAPTER

**Lee, M.K.**, Davidoff, S., Zimmerman, J., and 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.

## FULL CONFERENCE PAPERS

**Lee, M. K.**, Kiesler, S., Forlizzi, J., and Rybski, P. (2012). Ripple effects of embedded social agents: Field study of a social robot in the workplace. To appear in *Proceedings of CHI 2012*.

**Lee, M. K.**, Forlizzi, J., Kiesler, S., Rybski, P., Antanitis, J., and Savetsila, S. (2012). Personalization in HRI: A longitudinal field experiment. To appear in *Proceedings of HRI 2012*.

**Lee, M.K.**, and Takayama, L. (2011). "Now, I have a body": Uses and social norms for mobile remote presence in the workplace. In *Proceedings of CHI 2011*, 33-42. [**Best Paper Honorable Mention**] [Acceptance rate: **26%**]

**Lee, M.K.**, Kiesler, S., and Forlizzi, J. (2011). Mining behavioral economics to design persuasive technology for healthy choices. In *Proceedings of CHI 2011*, 325-334. [Acceptance rate: **26%**]

Cakmak, M., Srinivasa, S., **Lee, M.K.**, Kiesler, S., and Forlizzi, J. (2011). Using spatial and temporal contrast for fluent robot-human hand-overs. In *Proceedings of HRI 2011*, 489-496.

**Lee, M.K.**, Kiesler, S., Forlizzi, J., Srinivasa, S., and Rybski, P. (2010). Gracefully mitigating breakdowns in robotic services. In *Proceedings of HRI 2010*, 203-210. [**Best Paper Award**] [Acceptance rate: **21%**]

**Lee, M.K.**, Kiesler, S., and Forlizzi, J. (2010). Receptionist or information kiosk? How do people talk with a robot? In *Proceedings of CSCW 2010*, 31-40. [Acceptance rate: **20%**]

**Lee, M.K.**, and Forlizzi, J. (2009). Designing adaptive robotic services. In *Proceedings of IASDR'09*.

**Lee, M.K.**, Forlizzi, J., Rybski, P.E., Crabbe, F., Chung, W., Finkle, J., Glaser, E., and Kiesler, S. (2009). The Snackbot: Documenting the design of a robot for long-term Human-Robot Interaction. In *Proceedings of HRI 2009*, 7-14. [Acceptance rate: **19%**]

Davidoff, S., **Lee, M.K.**, Dey, A.K., and Zimmerman, J. (2007). Rapidly exploring application design through speed dating. In *Proceedings of Ubicomp 2007*, 429-446. [Acceptance rate: **19%**]

**Lee, M.K.**, Davidoff, S., Zimmerman, J., and Dey, A.K. (2007). Smart bag: managing home and raising children. In *Proceedings of DPPI 2007*, 434 - 437.

**Lee, M.K.**, Davidoff, S., Zimmerman, J., and Dey, A.K. (2006). Smart homes, families and control. In *Proceedings of Design & Emotion 2006*. [**Best Paper Award**]

Davidoff, S., **Lee, M.K.**, Yiu, C., Zimmerman, J., and Dey, A.K. (2006). Principles of smart home control. In *Proceedings of Ubicomp 2006*, 19-34. [Acceptance rate: **13%**]

## SHORT CONFERENCE & WORKSHOP PAPERS, POSTERS & VIDEOS

Simmons, R., Makatchev, M., Kirby, R., **Lee, M. K.**, Fanaswala, I., Browning, B., Forlizzi, J., and Sakr, M. Believable robot characters. To appear in *AAAI AI Magazine*.

**Lee, M.K.** (2011). Opportunities and challenges in mining behavioral economics to design persuasive technology. In *CHI 2011 PINC (Persuasion, Influence, Nudge & Coercion through mobile devices) workshop*.

**Lee, M.K.**, Tang, K. P., Forlizzi, J., and Kiesler, S. (2011). Understanding users' perception of privacy in human-robot interaction. In *Late-breaking Reports of HRI 2011*, 181-182.

**Lee, M.K.**, Forlizzi, J., Kiesler, S., Cakmak, M., and Srinivasa, S. (2011). Predictability or adaptivity? Designing robot handoffs modeled from trained dogs and people. In *Late-breaking Reports of HRI 2011*, 179-180.

Kim, M.S., Cha, B.K., Park, D.M., Lee, S.M., Kwak, S., and **Lee, M.K.** (2010). Dona: Urban Donation Motivating Robot. In *Video Session of HRI 2010*. [**Best Video Nominee**]

Kim, M.S., Cha, B.K., Park, D.M., Lee, S.M., Kwak, S., and **Lee, M.K.** (2010). Dona: Urban Donation Motivating Robot. In *Late-breaking Reports of HRI 2010*, 159-160.

**Lee, M.K.**, Dillahunt, T., Pendleton, B., Kraut, R., and Kiesler, S. (2009). Tailoring websites to increase contributions to online communities. In *Extended Abstracts of CHI 2009*, 4003-4008.

**Lee, M.K.**, and Makatchev, M. (2009). How do people talk with a robot: An analysis of human-robot dialogues in the real world. In *Extended Abstracts of CHI 2009*, 3769-3774.

Makatchev, M., **Lee, M.K.**, and Simmons, R. (2009). Relating initial turns of human-robot dialogues to discourse. In *Late-breaking Reports of HRI 2009*, 321-322.

Davidoff, S., **Lee, M.K.**, Zimmerman, J., and Dey, A.K. (2006). Socially-aware requirements for a smart home for families. In *Proceedings of the International Symposium on Intelligent Environments*, 45-48.

## TEACHING EXPERIENCE

**Guest Lecture** | Carnegie Mellon University, School of Design, Spring 2011

Lectured on the role of theory in design in Design Seminar II taught by Professor Peter Scupelli

**Graduate Teaching Assistant** | Carnegie Mellon University, HCI Institute, Spring 2010

Course: Basic Interaction Design taught by Professors Eric Paulos and Peter Scupelli

**Graduate Teaching Assistant** | Carnegie Mellon University, HCI Institute, Fall 2009

Course: HCI Methods taught by Professors John Zimmerman and Aniket Kittur

**Guest Lecture** | Carnegie Mellon University, School of Design, Fall 2009

Lectured on speed dating design method in Basic Interaction Design taught by Professor Jodi Forlizzi

**Graduate Teaching Assistant** | Carnegie Mellon University, School of Design, Fall 2006

Course: Advanced Interface and Interaction Design, taught by Professor Jodi Forlizzi

**Teaching Assistant of Graphic Applications** | KAIST, Summer 2001

Taught Dreamweaver and Flash in the re-education program for university professors

## HONORS & AWARDS

**ACM CHI 2011 Best Paper Honorable Mention**

**ACM/IEEE HRI 2010 Best Paper Award**

**ACM/IEEE HRI 2010 Best Video Honorable Mention**

**Kwanjeong Lee Jong Hwan Scholarship, 2007-2010**

**Design and Emotion 2006 Best Paper Award**

**Samsung Lee Kun Hee Scholarship, 2005-2007**

**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

**The 2nd Photovoltaic Environmental Design Competition** | Korea Institute of Energy Research, 2002

Honorary Mention

## PROFESSIONAL SERVICE

Organized Workshops  
and Conferences

**HRI 2010 Student Volunteers Co-chair**

**CHI 2010 Work-In-Progress Program Committee**

**HRI Pioneers Workshop 2010**

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

**Sharing Experiences 2009**

Conference 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, Carnegie Mellon University**

CMU student-run conference on service design (<http://www.design.cmu.edu/emergence/2007/>)

Committee member, responsible for submission coordination and review

Conference Review

ACM Conference on Human Factors in Computing Systems (CHI) 2009, 2010, 2011, 2012

ACM/IEEE International Conference on Human Robot Interaction (HRI) 2009, 2010, 2011, 2012

Graphics Interface 2011

Journal Review ACM Transactions on Interactive Intelligent Systems 2011  
International Journal of Social Robotics 2010, 2011  
Interaction Studies, 2011  
Journal of Behavioral Robotics 2010  
International Journal of Design 2010

## RESEARCH & PROJECTS

### **Projects on HERB, Personal Robotics** | CMU HCII and Intel, 2009-present

Conducting research on a home exploring robotic butler in collaboration with Professors Jodi Forlizzi and Siddhartha Srinivasa (<http://personalrobotics.intel-research.net>)

### **Projects on People and Robots** | CMU HCII and RI, 2007-present

Conducting research on Snackbot in collaboration with Professors Sara Kiesler, Jodi Forlizzi, and Paul Rybski (<http://www.peopleandrobots.org>, <http://www.snackbot.org>)

### **Smart Homes, Families and Controls** | CMU HCII and School of Design, 2005-2007

Conducted ethnographic research on family activities and evaluated concept applications in collaboration with Professors John Zimmerman and Anind Dey, and Scott Davidoff (<http://smarthome.cs.cmu.edu>)

### **Autonomous Home Robot User Interface** | SK Telecom, 2004

Designed the user interface for home robots providing information and communication service

### **Unified Management Service on a Mobile Phone** | SK Telecom, 2004

Designed the service on a future mobile phone that would manage information services

### **Intelligent Agent Based Personalization Service on a Mobile Phone** | SK Telecom, 2004

Designed the information service with an intelligent agent for a mobile phone (commercialized) ([http://www.sktelecom.com/eng/services/service\\_inside/1mm](http://www.sktelecom.com/eng/services/service_inside/1mm))

### **Interactive Toy Set** | KAIST, 2003

Designed and developed an interactive toy set for children's storytelling based on fairy tales  
Undergraduate thesis project, exhibited in the 2003 International Design Symposium in Seoul

### **Wearable Computer for Multi-Communication** | KAIST, Samsung Electronics, Fall 2002

Designed an "emotion-oriented" wearable computer for everyday use

### **User Interface for Mobile Phone, Philips Fisio 825** | Philips Design, Summer 2002

Designed the user interface for Fisio 825 and generated concepts for a new mobile phone interface

## PATENTS

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

Min Kyung Lee, Soo Kyung Cho, Jeong Sook Kim: Hierarchical Menu Navigation on a Mobile Phone, SK Telecom (pending)

## STUDENTS SUPERVISED

Yiwen Jia (undergraduate, Information Systems), Fall 2009

Sean Kim (undergraduate, Information Systemes), Fall 2009

Mitchell Luban (undergraduate, Electrical Engineering), Fall 2009

Jane Park (undergraduate, Communication Design), Fall 2009

Kimberley Nederlof (undergraduate, Psychology), Summer and Fall 2009

Andy Echenique (undergraduate, Psychology), Summer 2009

## IN THE PRESS

Remote Presence "How a robot can replace you at work - and how it can't" in **New Scientist**, March, 28, 2011  
<http://www.newscientist.com/article/mg20928055.000>

Snackbot "Just Like Mombot Used to Make" in **New York Times**, February, 23, 2010  
<http://www.nytimes.com/2010/02/24/dining/24robots.html?scp=2&sq=snackbot&st=cse>

"Snackbot: Polite host, research platform, vending machine" on **CNET** (Web), October, 16, 2009  
[http://news.cnet.com/8301-17938\\_105-10376249-1.html](http://news.cnet.com/8301-17938_105-10376249-1.html)

"The new Pittsburgh" on **CBS National News** (Television), September, 23, 2009  
<http://www.cbsnews.com/video/watch/?id=5333788n&tag=mg;eveningnews>

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  
[http://www.spiritmag.com/2008\\_10/features/kindness-lab-1.php](http://www.spiritmag.com/2008_10/features/kindness-lab-1.php)

Speed Dating "Speed Dating as a Design Method" in **Adaptive Path blog**, September, 19, 2007  
<http://www.adaptivepath.com/blog/2007/09/19/speed-dating-as-a-design-method>

## WORKSHOP PARTICIPATION

**PINC (persuasion, influence, nudge & coercion through mobile devices)**  
CHI 2011, Vancouver, Canada

**Workshop on social robotic telepresence**  
HRI 2011, Lausanne, Switzerland

**NSF-JST joint workshop on social remote presence**  
Palo Alto, CA, 2010

**Social responsibility in HRI: Conducting our research, changing the world**  
HRI 2009

**Workshop on IT@Home**  
CHI 2006

## VOLUNTEER

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

**Student volunteer**  
CHI 2009, Service Design Network 2010, HRI 2011

**Design consulting for the sign system** | Daejon Science Expo Park, 2004  
Consulted on the design of a sign system of the Daejon Science Expo Park renovation

## SKILLS

Language | English (fluent), French (intermediate conversational), Korean (native)  
Visualization | Photoshop, Illustrator, Director, Flash, After Effects, Premiere, Rhino, 3Dmax  
Programming | HTML, Director Lingo, Flash Action Script  
Computing hardware | Basic circuit and sensor knowledge