Jamy Li - Curriculum Vitae

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Education

Ph.D. Communication Research, Stanford University, 2012 - 2016

M.A.Sc. Industrial Engineering, University of Toronto, 2006 - 2008; *knowledge media design minor*

B.A.Sc. Engineering Science - Electrical Engineering Option, University of Toronto, 2001 - 2006

Employment

Assistant Professor, Department of Human-Media Interaction, University of Twente, 08/29/2016 - Present

- Lead a 4-year project to build & evaluate robot-supported games for autistic children that was awarded top EU project & presented to European Presidents at the Tallinn Digital Summit
- Re-design & coordinate staff for a Human-Computer Interaction class for 130 Bachelor students; student panel reported seeing value of HCI in the curriculum
- Author proposals for joint research funding (raised over €400,000 in EU & Netherlands grants)

Research Fellow, DesignLab, University of Twente, 06/14/2018 - Present

- Organize workshops on EU Grant Writing, Social Robotics and "IPSO" Weekly Department Meetings
- Organize multi-country DE-ENIGMA Consortium Integration Meetings to collaboratively design and program integrated robot software

Research Assistant, Stanford Center for Design Research, California, 11/12/2013 - 07/18/2016

- Awarded $150K Vanier Canada Graduate Scholarship (ranked 20th in competition), the top Canadian PhD grant, based on research proposal
- Awarded $8K Computational Social Science grant at Stanford based on research proposal
- Research mentioned in Science, The Guardian, Wired, Discover, CityLab and Slate Magazine
- Analyzed large datasets (100,000+ entries) of physiological skin conductance data in R
- Quickly completed 8+ user studies on autonomous technology within timespans of 2-10 weeks

User Experience Lead Designer, DIRECTV, Los Angeles, 04/26/2010 - 08/01/2012

- Led UX design & strategy for directv.com's multi-million-dollar customer acquisition funnel
- Led new mobile web design resulting in 20% above-target TV subscriptions and a 19% increase in checkout conversion
- Initiated & evangelized new concept map deliverables and cross-department workshops

User Experience Consultant, Canadian Imperial Bank of Commerce, Toronto, 09/2009 - 04/2010

- Created wireframes and print designs for internal bank-teller applications

User Experience Intern, Canadian Institute for Health Information, 05/2009 - 08/2009

Created personal health metrics and dashboard designs

DAAD RISE Professional Summer Intern, Underwearshopping.de, Berlin, 05/2008 - 09/2008

Won German Academic Exchange Service's internship, worked with an eCommerce startup

JSPS Summer Research Scholar, Keio University, Tokyo, 05/2007 - 09/2007

Won award based on proposal to conduct human-robot interaction in Japan

Research Assistant, Interactive Media Lab, Toronto, 06/2006 - 04/2010

Led 8+ user studies on blogging trends, social robotics and medical interfaces

12-month Computer Science Student Intern, Alias, Toronto, 07/2004 - 08/2005

Programmed user interfaces for Maya (Rendering department) in C++

Publications

Book chapters

Sirkin, D., Baltodano, S., Mok, B., Rothenbucher, D., Gowda, N., Li, J., ... & Ju, W. (2016). Embodied Design Improvisation for Autonomous Vehicles. **Design Thinking Research** (Editors: Hasso Plattner, Christoph Meinel & Larry Leifer) (pp. 125-143). Springer, Cham.

Articles published to refereed journals

Li, J., Cuadra, A., Mok, B., Reeves, B., Kaye, J., and Ju, W. (2019). Communicating dominance in a nonanthropomorphic robot using locomotion. **Transactions of Human-Robot Interaction, 8**(1): 4.

Li, J., Ju, W., and Reeves, B. (2017). Touching a mechanical body: Tactile contact with body parts of a humanoid robot is physiologically arousing. **Journal of Human-Robot Interaction, 6**(3): 118-130.

de Vries, R., Truong, K. P., Zaga, C., Li, J., and Evers, V. (2017). A word of advice: how to tailor motivational text messages based on behavior change theory to personality and gender. **Personal and Ubiquitous Computing, 21**(4): 675-687.

Li, J., Kizilcec, R., Bailenson, J., and Ju, W. (2016). Social robots and virtual agents as lecturers for video instruction. **Computers in Human Behavior, 55**(B): 1222-1230.

Li, J. (2015). The benefit of being physically present: A survey of experimental works comparing copresent robots, telepresent robots and virtual agents. **International Journal of Human-Computer Studies, 77**: 23-37.

Li, J., and Chignell, M. (2011). Communication of emotion in social robots through simple head and arm movements. **International Journal of Social Robotics, 3**(2): 125-142.

Li, J., and Chignell, M. (2010). Birds of a feather: How personality affects blog reading and writing. **International Journal of Human-Computer Studies, 68**(9): 589-602.

Kastner, M., Li, J., Lottridge, D., Marquez, C., Newton, D., and Straus, S.E. (2010). Development of a clinical decision support tool prototype for osteoporosis disease management: A qualitative study of focus groups. **BMC Medical Informatics and Decision Making, 10**(40): 15 pages.

Refereed conference proceedings: papers

Li, J., Davison, D., Alcorn, A., Williams, A., Babovic Dimitrijevic, S., Petrovic, S., Chevalier, P., Schadenberg, B., Ainger, E., Pellicano, L., and Evers, V. (2020). Non-participatory user-centered design of accessible teacher-teleoperated robot and tablets for minimally verbal autistic children. **PETRA 2020: PErvasive Technologies Related to Assistive Environments**. 9 pages.

Li, J., Currano, R., Sirkin, D., Goedicke, D., Tennent, H., Levine, A., Evers, V., and Ju, W. (2020). On-road and online studies to investigate beliefs and behaviors of Netherlands, US and Mexico pedestrians encountering hidden-driver vehicles. **HRI 2020**. (pp. 141–149). ACM. (24% acceptance rate) - **Best Paper Honorable Mention** (top 5%).

Goedicke, D., Li, J., Evers, V., and Ju, W. (2018). VR-OOM: Virtual Reality Operational On-road driving simulation Environment. **CHI 2018** (paper no. 165). ACM. (24% acceptance rate).

Chevalier, P., Li, J. J., Ainger, E., Alcorn, A. M., Babovic, S., Charisi, V., ... Evers, V. (2017, November). Dialogue design for a robot-based face-mirroring game to engage autistic children with emotional expressions. **ICSR 2017** (pp. 546-555).

Charisi, V., Habibovic, A., Andersson, J., Li, J., and Evers, V. (2017, June). Children's views on identification and intention communication of self-driving vehicles. **IDC 2017** (pp. 399-404). ACM.

Zaga, C., de Vries, R. A., Li, J., Truong, K. P., and Evers, V. (2017, May). A simple nod of the head: The effect of minimal robot movements on children's perception of a low-anthropomorphic robot. **CHI 2017** (pp. 336-341). ACM.

Li, J., Zhao, X., Cho, M.J., Malle, B., and Ju, W. (2016). From trolley to autonomous vehicle: Perceptions of responsibility and moral norms in traffic accidents with self-driving cars. **SAE 2016 World Congress & Exhibition** (2016-01-0164).

Rothenbucher, D., Li, J., Sirkin, D., Mok, B., and Ju, W. (2016). Ghost driver: A field study investigating the interaction between pedestrians and driverless vehicles. **RO-MAN 2016** (pp. 795-802). IEEE.

Ive, H. P., Sirkin, D., Miller, D., Li, J., & Ju, W. (2015, September). Don't make me turn this seat around!: driver and passenger activities and positions in autonomous cars. **AutoUI 2015** (pp. 50-55). ACM.

Li, J., Ju, W., and Nass, C. (2015, March). Observer perception of dominance and mirroring behavior in human-robot relationships. **HRI 2015** (pp. 133-140). ACM. (25% acceptance)

Li, J., Chignell, M., Mizobuchi, S., and Yasumura, M. (2009, July). Emotions and messages in simple robot gestures. **International Conference on Human-Computer Interaction (HCII 2009)**. (pp. 331-340). Springer, Berlin, Heidelberg.

Li, J., Randall, J., and Guan, L. (2003). Perceptual image processing for digital edge linking. **Canadian Conference on Electrical and Computer Engineering (CCECE 2003)** (pp. 1215-1218). IEEE.

Refereed conference proceedings: works-in-progress, demos, videos, posters, panels, workshops

Meijer, M. J., Dokter, M., Boersma, C., Sadananda Bhat, A., Bohlmeijer, E., and Li, J. (2020). PlantBot: A social robot prototype to help with behavioral activation in young people with minor depression. **HRI 2020 Companion**. (pp. 76-76). ACM.

Li, J., and Planting, J. (2020). How culture and presence of a robot affect teachers' use of touch with autistic children. **HRI 2020 Companion**. (pp. 337–339). ACM.

Li, J., Petrovic, S., Davison, D., Babovic Dimitrijevic, S., Chevalier, P., and Evers, V. (2020). Addressing attention difficulties in autistic children using multimodal cues from a humanoid robot. **HRI 2020 Companion**. (pp. 334–336). ACM.

Schadenberg, B., Li, J., Petrović, S., Reidsma, D., Heylen, D., and Evers, V. (2020). Helping educators monitor autistic children's progress across sessions: A needfinding study. **HRI 2020 Companion**. (pp. 436–438). ACM.

de Jong, M., Hettinga, M., Stara, V., Evers, V., and Li, J. (2019). Eldertainment or functional necessity? How virtual agents affect the home lives of people with dementia using the quality of life (QOL-AD) scale. **Ubicomp 2019 Adjunct Proceedings**. ACM.

Li, J., Sirkin, D., van Erp, J., and van Riemsdijk, B. (2019). Closeness with robots as social partners. **HRI 2019**. (pp. 691-692). IEEE.

Li, J. (2016). Social robots as interactive technology agents: Supporting design with exploratory assessment. **HRI 2016**. (pp. 629-630). IEEE.

Li, J., and Ju, W. (2016). Ms. robot will be teaching you: Robot lecturers in four modes of automated remote instruction. **2016 AAAI Spring Symposium Series**. 2 pages. AAAI.

Li, J., and Ju, W. (2016, March). Social robots for automated remote instruction. **HRI 2016** (pp. 575-575). IEEE.

Li, J., Ju, W., and Nass, C. (2015, March). Robot in charge: A relational study investigating human-robot dyads with differences in interpersonal dominance. **HRI 2015 Extended Abstracts**. (pp. 265-265). ACM.

Li, J., and Ju, W. (2015, March). Robots + agents for MOOCs: What if Scott Klemmer were a robot?. **HRI 2015 Extended Abstracts**. (pp. 279-279). ACM.

Li, J. (2013). The nature of the bots: how people respond to robots, virtual agents and humans as multimodal stimuli. **ICMI 2013 Doctoral Consortium**. (pp. 337-340). ACM.

Teaching Experience

Achieved Netherlands University Teaching Qualification ("UTQ"/"BKO"), U. of Twente, 2020

I was awarded this teaching qualification by University of Twente based on an extensive application and both class observations and interviews with teaching evaluators. I received positive advice and was granted the qualification. It is mandatory for tenured professors in the Netherlands.

Course Instructor, 201700269 Intelligent Interaction Design, 2017-2019. ~130 students. 7 ECTS.

Description: Created and managed a new core HCI course for Bachelor Computer Science and Information Technology students consisting of team design project and written exams. Students build low- and high-fidelity prototypes of an interactive system in teams of 5-6 under guidance from domain experts (PhDs and Postdocs). They gather user insight, develop novel interfaces and evaluate them with users on their own idea. Lectures, guest speakers and readings introduce key theory and knowledge. The main results of the course are a novel prototype, better knowledge of human-computer interaction, a demo market, written report, oral examination (team) and 2 written exams (individual).

Course Instructor, 201600079 Trends in Human-Robot Interaction, 2016-2020. ~20 students. 5 ECTS.

Description: This 10-week, graduate-level course introduces human-robot interaction (HRI) through guest lectures, workshops and readings. Students develop skills to independently plan a robotics research study that is relevant and feasible. The main result of the course is a research proposal and presentation at a poster session open to the public.

Course Instructor, 201600086 Advanced Research Projects in Human-Robot Interaction, 2016-2020. ~3 students. 5 ECTS.

Description: This 10-week, graduate-level course is a Masters course with guidance and advising for students to conduct their own robotics research proposal, program a robot, run participants and analyze collected data. The main result is a completed user study and a conference-style research paper.

Guest Lecturer/Instructor, 2018002 34 Foundations of Interaction Technology (HRI Week), 2018-2020. ~60 students. 5 ECTS.

Description: This 1-week-long course introduces new Masters students to fundamental concepts in human-robot interaction, research and design methods. Students work in groups of 4 to design a conduct a video-based robotics design study based on background literature they are provided. They design robot behavior for each condition, select among pre-defined measures and peer-evaluate their designs.

Guest Lecturer, Research Methods / Self-Driving Cars, Science2Society, 2017-2018

Guest Lecturer, Social Robots, Study Tour Ukiro, 2017

Teaching Assistant, Comm 1A: Mass Media, Society and Democracy, Stanford University, 2015-2016

Service

Professional Activities

Associate Chair (Topic: Understanding People A), CHI 2021

Associate Editor (Topic: Human-Robot Interaction), BioRob 2020

Program Committee Member (Topic: Studies in HRI), HRI 2019

Session Chair (Topic: Trust & Privacy), HRI 2019

Associate Chair (Topic: Understanding People B), CHI 2018

Design Chair, HRI 2018

Member, Project Manager Hiring Committee, DE-ENIGMA European Commission, 2018

Invited Project Participant, Tallinn Digital Summit 2017, Estonian Presidency of the Council of the European Union & the European Commission

Referee, *International Journal of Human-Computer Studies* (2016-2020; Distinguished Reviewer, 2018); *ACM/IEEE HRI* (2015-2020); *HRI Pioneers* (2020); *ACM CHI* (2016-2018, 2020); *Transactions on Human-Robot Interaction* (2018, 2019); *International Journal of Social Robotics* (2017-2020); *Behavior & Information Technology* (2017-2018); *Journal on Multimodal User Interfaces* (2018); *Risk Analysis* (2018); *ICMI* (2018); *IEEE RO-MAN* (2016-2018); *Computers in Human Behavior* (2016, 2019); *DIS* (2019-2020); *Computational Communication Research* (2019); *Neuroscience and Biobehavioral Reviews* (2019); *Multimodal Technologies and Interaction* (2020); Israel Science Foundation grant (2020); Wiley-IEEE Press book proposal (2020).

Workshops Organized

HRI2019 Workshop on "Closeness with Robots" (with David Sirkin, Jan Van Erp and Birna van Riemsdijk), 2019

DE-ENIGMA "Software & Design Integration" Workshops (with University of Twente DE-ENIGMA team), 2018-2019

Trends in Human-Robot Interaction Class Poster Sessions, 2017-2020

HMI Department Social Robotics Weekly Meetings (with social robotics staff and students), 2017-2019

HMI Department "EU Grant Writing" Workshop, 2017

University and Department Service

"EIT Digital" Double Degree Masters Programme, Critical Observer (Thesis Reviewer), 2018-2020

"IPSO" Department Weekly Seminar, Organizer, 2018-2019

New M.Sc. in Robotics Program Development, Working Group Member, 2019

New M.Sc. of Interaction Technology Program Redesign, Working Group Member, 2017-2018

Organizer, Department Grant Writing Workshop, 2017

Financial Officer, Stanford GradQ Graduate Student LGBTQ Organization, 2014-2016

Robot Demonstrations

PlantBot, HRI 2020, March 2020

Zeno Robot, Rabobank Money Meets Ideas Investor Event, 2019

Zeno Robot, University of Twente Open House, 2018-2019

PlantBot, Lynn Packwood Demo Day, 2018-2019

Zeno Robot, ICT.Open: The Conference for ICT Research in the Netherlands, 2018-2019

Zeno Robot, HRI 2018, March 2018

Invited Talks

Virtual Agents and Robots

Leibniz Center for Informatics (Schloss Dagstuhl): Verification and Synthesis of Human-Robot Interaction Workshop, Wadern, Germany, 18-22 Feb 2019.

NSF (National Science Foundation) Workshop on Embodied Conversational Agents & Human-Robot Interaction (ECA-HRI), Boulder, Colorado. 21-22 Oct 2018.

C.S.V. Alpha Christian Student Organization Robot Night. 7 Dec. 2017.

BIT World Congress of Robotics 2015. Shenyang, China. 1 Sept. 2015.

Empathy & Interaction with Robots

4TU Collaborative Network on Expressive Robots, Utrecht, Netherlands. 23 May 2019.

Human-Robot Interaction Mini-Symposium, Stanford, California. 21-22 Oct 2018.

Human-Technology Relations: Postphenomenology and Philosophy of Technology. Enschede, The Netherlands. 12 July 2018.

4TU Collaborative network on Expressive Robots: Lorentz workshop on Movement Grammars: Brains, Robots and Dance. Utrecht, The Netherlands. 6 June 2018.

ThingsCon Salon 2017: Intimate Technology. Enschede, The Netherlands. 4 Oct. 2017.

4TU.NIRICT 2017 Symposium on Empathic Technologies: Panel. Enschede, The Netherlands. 19 May 2017.

BayCHI 2016. San Francisco, California. 10 May 2016.

Robots and Autistic Children

HRI 2019 Workshop on Social Robots in Therapy: Focusing on Autonomy and Ethical Challenges. Daegu, South Korea. 11 March 2019.

HRI 2018 Workshop on Social Robots in Therapy: Focusing on Autonomy and Ethical Challenges. Chicago, Illinois. 5 March 2018.

Zorg&ICT. Utrecht, The Netherlands. 17-19 April 2018.

Selected Press

Science Magazine, People don't trust driverless cars. Researchers are trying to change that, 14 December 2017.

Wired Magazine, That Guy Dressed Up as a Car Seat to Solve a Robocar Riddle, 8 August 2017.

Citylab, Here's the Real Science Behind That Fake Driverless Car, 8 August 2017.

Discover Magazine, How Humans Feel About Touching Robots' 'Intimate Areas', 5 April 2016.

The Guardian, Touching robots can arouse humans, study finds, 5 April 2016.

Psychology Today, How Does Personality Influence Blog Writing and Reading? Do birds of a feather blog together?, 8 May 2010.

Awards and Honors

Teaching Honors

Netherlands University Teaching Qualification (BKO), University of Twente (applicable to all Netherlands' universities), 2020.

Accepted Funding Proposals, Research Awards, Honors

Best Paper Honorable Mention, ACM/IEEE HRI 2020, top 5% of submissions

SYNERGIA - SYstem change for New Ecology-based and Resource efficient Growth with high tech In Agriculture, NWO Crossover Call, €109,346, 2021-2023

TERRINet, EU Horizon 2020 Grant, INFRAIA-2017, Project ID 730994, €385,000, 2017-2021

Delegates' Choice Award, Advisor for HRI Student Design Competition 2017 Entry"Snoozle – A Robotic Pillow That Helps You Go to Sleep", 2017

Official Selection, Advisor for "Snoozle – A Robotic Pillow", Eindhoven Design Week 2017

Computational Social Science Fellowship, Institute for Research in the Social Sciences, $7,800, 2015

Alexander Graham Bell Canada Graduate Scholarship, Natural Sciences and Engineering Research Council of Canada, $63,000, 2012 - 2015

Vanier Canada Graduate Scholarship, Natural Sciences and Engineering Research Council of Canada, $150,000, 2012

21st Ship for World Youth Programme (120 selected worldwide), Japan Embassy and United Nations University, $20,000, 2009

KMDI Collaborative Programme, completed interdisciplinary U. of Toronto programme, 2008

T-Holder Award, University of Toronto Varsity Blues Rowing Team, 2008

DAAD Rise Professional Award, German Academic Exchange Service, 2008

Bell University Labs Scholarship, Bell Canada, $10,000, 2007

NSERC/JSPS Summer Research Award, Japan Society for the Promotion of Science, $10,000, 2007

Louanne Smrke Essay Award, Consulting Engineering of Ontario, 2006

Toshiba/NSTA ExploraVision Science Competition, US National Science Teacher's Association, 1st place among 13 000 participants, 2000.

Past Submitted Proposals (not accepted)

HARMONY: Enhancing Healthcare with Assistive Robotic Mobile Manipulation, EU Commission Horizon 2020 Research and Innovation Framework, 2019

AGEILE: AGEing with Interactive Living Environment, EU Commission Horizon 2020 Research and Innovation Framework, 2018

CheerBot: A social robot to assist with behavioural activation in young people with depression NWO Veni Award, 2017

HumAn-Robot Mutualism in Orchestrated lean automatioN and production, EU Commission Horizon 2020 Research and Innovation Framework, 2017

IBI: Intelligent behavioural interface, EU Commission Horizon 2020 Research and Innovation Framework, 2017

IBN: Intelligent behavioural network for healthy living, European Regional Development Fund (Interreg), 2018

Projects

Synergia: SYstem change for New Ecology-based and Resource efficient Growth with high tech In Agriculture, Principal Investigator for a talk on developing social media / robot user interface technology for farmers to improve usability and social connection. 2020-2024.

Living Well with Anne, co-advisor of PhD student working on virtual agent to support elderly with dementia. 2017-2020.

DE-ENIGMA Robot: Playfully empowering autistic children, EU Commission Horizon 2020 Research and Innovation Framework Grant No. 688835. Principal Investigator for the University of Twente project team; Leader of Work Package 4. Collaboration between Imperial College London, Augsburg University, University College London, IDMind Portugal, Serbian Society of Autism, IMAR and Autism Europe. 2016-2020.

If my instructor were a robot: The effect of the physical and biological embodiment of a MOOC teacher on learning outcomes, Stanford Institute for Research in Social Science Grant for Computational Social Science. Principal Investigator. 2015-2016.

Ghost driver: A method to conduct field studies for autonomous vehicles, Center for Automotive Research at Stanford (and Faurecia) & University of Twente, Co-Principal Investigator. Collaboration with Stanford University and Cornell Tech in New York. 2014-2020.

Socially Assistive Robotics: An NSF Expedition in Computing, US National Science Foundation Grant. Summer PhD internship, University of Southern California. Summer 2013.

Additional Research Projects, human-computer interaction and human-robot interaction studies funded by individual labs at the University of Toronto, Stanford University or University of Twente. Principal Investigator. 2006 - 2020.

Students

PhD Students

Current: Michiel de Jong (co-advised)

Masters Students:

Current: Yuanyang Zhong (at INRIA); Pablo Canton (at Philips Design); Daiana Iurescu

2019: Brolin Fernandes (supervise internship at Heemskerk Innovative Technology)

2018: David Goedicke (thesis topic & CHI2018 paper: "On-road Virtual Reality Driving Simulator"; now PhD at Cornell Tech); Hannah Pelican (supervised internship at Cornell; now PhD at Linkoping University)

Masters Student Project:

2019: Iris Heerlien, Kelly van Tol, Luuk van Kessel, Sverre Boer ("Learn and Play with Zeno: Designing and evaluating a playful education platform focused on children with ASD")

2018: Max Meijer, Maaike Dokter, Christiaan Boersma, Ashwin Sadananda Bhat ("PlantBot: A social robot prototype to help with behavioral activation in young people with minor depression")

Undergraduate Student Theses:

Current: Laurens Lafranca; Ruben Govers; Bilge Tekes

2018: Luce Sandfort ("How anthropomorphism in autonomous vehicles affects closeness, trust and ethical expectations"; Best Paper Award in Computer Science); Jens van der Meer; Rens van Schouwenburg

References Available Upon Request

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