Social robots, also called companion robots (or service robots), are a physical humanoid robot that connects through a network infrastructure to online services that enhance traditional robot functionalities. They offer features such as human facial, voice and emotion recognition, including adding human-like personality to their Artificial Intelligence (AI) capabilities to achieve better human-machine communication. Social robots can interact with humans by performing tasks that adhere to specific social cues and rules. To accomplish this, they can now easily capture a user’s physical activity state (e.g., walking, standing, running, etc.) and store personalized information (e.g., face, voice, location, activity pattern, etc.) through the camera, microphone, and sensors of Artificial Intelligence (AI) technologies. As such, social robots can behave like natural partners for social interaction with humans, with features such as speech, gestures, and eye-gaze, that can be customized to a particular user and/or social context (Robert et al. 2020).

Unfortunately, advances in robotics have far outpaced our understanding of the social implications of their use (You and Robert 2018). Human-Robot Interaction (HRI) is a research area whose purpose is to addresses the large and important questions at the heart designing and evaluating robots for use by or with humans. This special issue will set the baseline for understanding how HRI is likely to influence and change our business practices and lifestyle. This special issue calls for research papers in the emerging area of the use of companion robots in different business application domains (e.g., customer service, healthcare management, etc.).

In addition to this public call for papers, this special issue also invites selected best papers from the mini-tracks “Human-Robot Interactions” and "Social Robots - Robotics and Toy Computing" from the Hawaii International Conference on System Sciences (HICSS). Each invited paper will be requested to substantially extend its proceedings version by introducing (30% or more) new materials. Each submission will be reviewed by at least three reviewers.

Submission Instructions

Topics of interest include, but are not limited to:

- Data modeling, analytics, and algorithms for robotic computing
- Business models for robots
- The conceptual and technical architecture for robotic computing
- Security, privacy, and trust in robots
- Industry standards and solution stacks in robots
- Promoting cooperative and collaborative interaction with robots
- Uncanny Valley Theory in robots
- User experience in robotic computing
- Examining uncooperative and adversarial HRI
- The role of adoption and appropriation in HRI
- Empirical studies examining the cognitive, psychological, emotional, and social aspects of HRI
- The impact of haptic feedback and touch on HRI
- The role of robot attractiveness on HRI
- Ethics on HRI
- Social-emotional models of HRI
- Theoretical frameworks for HRI
- Design implications for robot interactions at home, work, and public spaces
- Human-oriented practices that promote HRI
- New methodological approaches to studying HRI
- Case Studies (e.g., healthcare, customer service, aviation, etc.)

Important dates

- Paper submission deadline: February 1, 2021
- Notification of first-round reviews: April 1, 2021
- Revised manuscripts due: May 1, 2021
- Notification of second-round reviews: July 1, 2021
- Revised manuscripts due: August 1, 2021
- Notification of final decision: October 1, 2021
- Final version due: November 1, 2021

Guest editors

Lionel P. Robert Jr., University of Michigan, USA
Marcelo Fantinato, University of São Paulo, Brazil
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Patrick C. K. Hung, Ontario Tech University, Canada

Guest editors’ biography

Lionel P. Robert Jr. is an Associate Professor at the University of Michigan School of Information. Lionel is the director of the Michigan Autonomous Vehicle Research Intergroup Collaboration (MAVRIC) and an affiliate of the University of Michigan Robotics Institute, Center for Hybrid Intelligence Systems and the National Center for Institutional Diversity all at the University of Michigan and the Center for Computer-Mediated Communication at Indiana University. He is currently on the editorial board of Management Information Systems Quarterly, the Journal of the Association for Information Systems, ACM Transactions on Social Computing, Information and Management and the AIS Transactions on Human-Computer Interaction. Dr. Robert has published in journals such as Information Systems Research,
Journal of the Association of Information Systems and the Journal of the Association of Information Science and Technology as well as top HCI conferences such as CHI, CSCW, Group, HRI, WSDM, and ICWSM. His research has been sponsored by the U.S. Army, Toyota Research Institute, MCity, Lieberthal-Rogel Center for Chinese Studies and the National Science Foundation. He has appeared in print, radio and/or television for such outlets as ABC, CNN, CNBC, Michigan Radio, Inc., Washington Examiner, Detroit News, and the Associated Press.

**Marcelo Fantinato** is an Associate Professor of the School of Arts, Sciences and Humanities at the University of São Paulo, Brazil, acting in the Bachelor in Information Systems program, since 2008, and the Graduate Program in Information Systems, since 2010. He was a guest researcher at Vrije Universiteit Amsterdam, The Netherlands, in 2018, and at Utrecht University, The Netherlands, in 2019. He has Habilitation in Business Process Management, 2014, from the University of São Paulo, Brazil; Ph.D. in Computer Science, 2007, and Master in Electrical Engineering, 2002, from the State University of Campinas, Brazil; and Bachelor in Computer Science, 1999, from State University of Maringá, Brazil. He has Green Belt certification in the Six Sigma Quality Improvement Program from Motorola, 2007. He was the coordinator of the Graduate Program in Information Systems at USP, from 2014 to 2018. He has professional experience in the software development industry at the CPqD Foundation, in Campinas, Brazil, from 2001 to 2006, and at Motorola, in Jaguariúna, Brazil, from 2006 to 2008. He was the general chair of the Brazilian Software Congress: Theory and Practice, 2012, and the Brazilian Symposium on Information Systems, 2012. He was also the program chair of the Brazilian Symposium on Software Components, Architectures and Reuse. He is a member of the IEEE Technical Committee on Services Computing. He represents the University of São Paulo in the European Research Center for Information Systems. He is an associate editor of the International Journal of Cooperative Information Systems. He is co-chair of the series of international Symposia on Computing in Companion Robots and Smart Toys in the Hawaii International Conference on System Sciences (HICSS).

**Sangseok You** is (Ph.D. from the University of Michigan) is an assistant professor in Information Systems at HEC Paris. His research focuses on understanding how teams working with technologies operate and promote team outcomes. Topics of his research encompass human-robot collaboration, artificial intelligence, and virtual and distributed collaboration in an open-source software context. His research has appeared in several outlets, including Journal of Association for Information Systems (JAIS), Journal of the Association for Information Science and Technology (JAIST), Academy of Management Annual Meeting (AOM), International Conference on Information Systems (ICIS), and ACM CHI (Human Factors in Computing Systems) and CSCW (Computer Computer-Supported Cooperative Work and Social Computing) among others.

**Patrick C. K. Hung** is a Professor and Director of International Programs at the Faculty of Business and Information Technology at Ontario Tech University, Canada. He is an Honorary International Chair Professor at National Taipe University of Technology, Taiwan. He is currently working with the College of Technological Innovation at Zayed University on several smart city and cybersecurity research projects in the United Arab Emirates. He is also a Visiting Researcher at the University of São Paulo, Brazil and National Technological University (UTN)-Santa Fe, Argentina. Patrick worked with Boeing Research and Technology at Seattle on aviation services-related research with two U.S. patents on mobile network dynamic workflow system. Before that, he was a Research Scientist with the Commonwealth Scientific and Industrial Research Organization in Australia. He also worked in the software industry in Toronto. He is a founding member of the IEEE Technical Committee on Services Computing, and the IEEE Transactions on Services Computing. He is an editorial board member for the IEEE Transactions on Engineering Management, an associate editor for Electronic Commerce Research and Applications as well as he is coordinating editor of the Information Systems Frontiers. He has a Ph.D. and Master in Computer Science from Hong Kong University of Science and Technology, a Master in Management Sciences from the University of Waterloo, Canada and a Bachelor in Computer Science from the University of New South Wales, Australia. He also chairs the Social Robots - Robotics and Toy Computing
Mini-track and Computing in Companion Robots and Smart Toys Symposium in the Hawaii International Conference on System Sciences (HICSS).

References
