Editorial

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At the beginning of 2011, it is our great pleasure and privilege to report the historical overview, current status, flagship conference, online submission and review system, and call for special issues and papers since the maiden issue launched in January 2009, and of course, to proudly present the first issue of our journal for 2011.

1 Historical Overview

The journal was the brainchild of many distinguished scholars in our community who envisioned the incoming wave of social robots in the years to come, and the need for a common platform for academic discussion, scientific exchanges, and quality publications in a timely manner. With the strong supports from colleagues and friends in the community, including the editorial board members, enthusiastic reviewers, and funding agencies, and the strong backing of the flagship publisher, Springer, we successfully launched a call for papers for the journal in early 2008, aimed at the publication of the first issue in January 2009.

In the past two years, we have published a total of eight issues, composed of four regular issues and four special issues. While the regular issues are for quality publications

in the broad scope of interests of our journal, the special issues are handled by dedicated and experienced guest editor(s) focusing on topics of importance in the community. The following issues have been addressed thus far: human-robot personal relationship; people detection and tracking; robot safety; and social acceptance of robots. We owe our thanks to the guest editors for their time, dedication and enthusiasm in making those issues possible.

As the Editor-in-Chief (EiC) and Co-EiC, we have restrained ourselves from publishing our works in the journal. In the future, to address the problem of conflict of interest, we plan to handle each other's works with the help from our editorial assistant at the Springer office.

2 Current Status

From January to December 2009, the journal received 9,572 requests for full-text articles. These were from Europe (35%), Asia-Pacific (35%), America (22%), Africa (1%) and other regions (10%). The topics of interests were in domestic robots, social aspects of robots, modeling of perception, human robot interaction and navigation. From January to July 2010 alone, the number of full-text articles requests was 9,361, which is close to the requests for the whole 2009. The requests came from Asia-Pacific (34%), Europe (31%), America (20%), Africa (1%) and other regions (14%). The top requested articles were on the topics of people tracking, motion detection, mobile robot navigation, safety issues and healthcare. Indeed, the journal is attracting attention in the community.

Within two years of publication, the following works have been cited more than ten times by other researchers according to the number of citations provided by Google Scholar as of November 2010:

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- (i) T. Shiwa, T. Kanda, M. Imai, H. Ishiguro and N. Hagita, “How Quickly Should a Communication Robot Respond? Delaying Strategies and Habituation Effects”, Vol. 1, No. 2, pp. 141–155, 2009.
- (ii) C. Bartneck, D. Kulić, E. Croft and S. Zoghbi, “Measurement Instruments for the Anthropomorphism, Animacy, Likeability, Perceived Intelligence, and Perceived Safety of Robots”, Vol. 1, No. 1, pp. 71–81, 2009.
- (iii) A. Bauer, K. Klasing, G. Lidoris, Q. Mühlbauer, F. Rohrmüller, S. Sosnowski, T. Xu, K. Kühnlenz, D. Wollherr and M. Buss, “The Autonomous City Explorer: Towards Natural Human-Robot Interaction in Urban Environments”, Vol. 1, No. 2, pp. 127–140, 2009.

Our heartfelt congratulations to all the authors for their achievements, peer recognition, and valuable contributions to our journal.

3 The Flagship Conference

To meet the urgent need in our community for a common venue to present novel research, to exchange scientific findings, and to meet in person for possible joint research in social robotics and its related topics only, we launched the first International Conference on Social Robotics. The conference General Chair was Ryohei Nakatsu, and the event was held under the FIRA RoboWorld Congress, Chaired by Shuzhi Sam Ge and Jong Hwan Kim, in August 16th–18th, 2009, in Incheon, Korea.

We then organized the 2nd International Conference on Social Robotics (ICSR), with Haizhou Li and Shuzhi Sam Ge as the General Chairs and John-John Cabibihan and Yeow Kee Tan as the Program Chairs, on 23–24 November 2010, in Singapore. ICSR 2010 was very successful with 43 papers presented and 108 international participants attended.

ICSR 2010 introduced two awards: Best Paper Award and Best Student Paper Award, sponsored by Springer, both based on the scientific excellence, the organization of the paper, and the oral presentation. Our heartfelt congratulations go to I. Fujimoto, T. Matsumoto, P.R.S. De Silva, M. Kobayashi and M. Higashi for receiving the Best Paper Award for their work on “Study on An Assistive Robot for Improving Interaction Skill of Children with Autism”, and P. Holthaus, I. Lütkebohle, M. Hanheide and S. Wachsmuth for receiving the Best Student Paper Award for their work on “Can I Help You?—A Spatial Attention System for a Receptionist Robot”. In addition, the design competition was well organized and received by the organizers and participants.

We hope to see you next year in the Netherlands for ICSR 2011!

4 Online Submission and Review System

At the beginning of the journal, we requested Springer to provide the facility to include electronic multimedia files as supplementary materials for publications in our journal, as they are important and indispensable components of our research capability and achievement.

Thanks to the technical developments and management staff at Springer, we are pleased to announce that our journal now accepts electronic multimedia files such as animations, movies, audio and other supplementary files to be published online along with an article. With the multimedia uploading, the journal will give the authors, the reviewers, and the readers a complete picture and the achievements of their works, and a new dimension to our publications in a rich, dynamic and comprehensive manner.

If you wish submit multimedia files, please follow these pointers:

1. Supply all supplementary material in standard file formats.
2. Include in each file the following information: article title, journal name, author names; affiliation and e-mail address of the corresponding author.
3. Keep your files as small and concise as possible because larger-sized files may require long download time and some readers may experience other problems during downloading.
4. Always use MPEG-1 (.mpg) format for Audio, Video, and Animations files.

For manuscripts, Springer accepts a wide range submission file formats including: Word, WordPerfect, RTF, TXT, TIFF, GIF, JPEG, EPS, LaTeX2E, TeX, Postscript, PICT, Excel, Tar, Zip and PowerPoint. However, PDF is not an acceptable file format as per Springer policy.

5 Call for Papers and Special Issues

While papers fall into the broad scope of social robotics are always welcome, we are also looking forward to receiving research works on the ethics, legal, safety, among others before social robots become parts of daily lives as we agreed during the editorial board meeting, ICSR, in Singapore.

Proposals for special issues on topics of current interest in all aspects of Social Robotics are always welcome. If you are interested in serving as a guest editor, please send the EiC and CoEiC a proposal with the following information: the theme of interest with background, a list of interested participants, a specific plan (open calls, submissions, review and final publication), and your editorial experience as well as research interest.

6 About This Issue

This issue presents seven scientific works from Europe, America and Asia-Pacific on the theories and applications of social robots.

The first work on “Providing Robots with the Capacity for Deception” by Alan R. Wagner and Ronald C. Arkin explores the phenomena of deception from the perspective of robotics. An algorithm was developed which allows an artificially intelligent system to determine if deception is warranted in a social situation. Simulation and robot experiments using the algorithms are discussed to investigate the nature of deception itself.

The second paper by Masahiro Shiomi, Daisuke Sakamoto, Takayuki Kanda, Carlos Toshinori Ishi, Hiroshi Ishiguro and Norihiro Hagita is on the “Field Trial of a Networked Robot at a Train Station”. The authors developed a networked robot system in which ubiquitous sensors support robot sensing and a human operator processing the robots decisions during interaction. An operator-requesting mechanism is developed for the robot to detect situations that it cannot handle autonomously. For helping people in real environments, the authors implemented basic communicative behaviors such as greetings and route guidance in the robot. The results attest to the high acceptability of the robot system in a public space and also show the effectiveness of the operator-requesting mechanism.

The third paper, “The Benefits of Interactions with Physically Present Robots over Video-displayed Agents” is presented by Wilma A. Bainbridge, Justin W. Hart, Elizabeth S. Kim, and Brian Scassellati. The authors investigated how a robot’s physical presence influences human judgments in a social situation. Four modalities of social interactions through greetings, cooperation, trust and personal space are examined respectively in a simple book-moving experiment. The authors also point out that the participants were more likely to fulfill an unusual request and to afford greater personal space to the robot when it was physically present, than when it was shown on live video even though the displayed robots gestures were augmented with disambiguating 3-D information.

The fourth paper is entitled “Evaluating Human-Robot Interaction: Focusing on the Holistic Interaction Experience” by James E. Young, JaYoung Sung, Amy Volda, Ehud Sharlin, Takeo Igarashi, Henrik I. Christensen and Rebecca E. Grinter. The authors investigated the difference between the experience of interacting with a robot and people’s interaction experience with other technologies and artifacts.

A view on social interaction with robots named “the holistic interaction experience” is proposed and a set of three perspectives for exploring social interaction with robots were introduced: visceral factors of interaction, social mechanics, and social structures. An original heuristic for brainstorming various possibilities of interaction experiences based on the interaction experience map is also proposed in the paper.

In the fifth paper, Giuseppina Schiavone, Domenico Formica, Fabrizio Taffoni, Domenico Campolo, Eugenio Guglielmelli and Flavio Keller describe their work on “Multimodal Ecological Technology: from a Child’s Social Behavior Assessment to Child Robot Interaction Improvement”. They developed a multimodal device to systematically assess children’s orienting behavior in social situations. The in-field usability of the proposed technology is evaluated by preliminary tests carried out at a local daycare with 12–36 months old typically developing infants.

The sixth paper authored by Tanya N. Beran, Alejandro Ramirez-Serrano, Roman Kuzyk, Sarah Nugent and Meghann Fior investigates whether children would “help a robot in need”. The authors examined the interactions between children and robots by observing whether children help a robot complete a task. They conducted five studies to research the behaviors of participants with a robot. Results indicated that children are most likely to help a robot after experiencing a positive introduction to it and a positive introduction in combination with permission to help resulted in the vast majority of children helping.

Finally, in the seventh paper, Alaa Halawani, Haibo Li and Adi Anani proposes a new scheme for detection and tracking through their paper on “Building Eye Contact in E-Learning through Head-Eye Coordination.” Their system estimates head-eye coordination to achieve eye contact using head motion tracking techniques instead of gaze estimation ones. The configuration of mounting the camera on users’ head shows promising results from both demonstration and real time experiments.

Social robotics is an emerging field, through which we aim to bring social robots into the fabric of society. Through this journal and the ICSR series of conference, we hope to stimulate ideas, discussions and research towards the development of this exciting area for the benefit of humanity. Thank you very much for your dedication, contributions, and conviction in this course.

Shuzhi Sam Ge, *Editor-in-Chief*
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