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TAMD

Editorial from new EIC

Angelo Cangelosi

The Transactions on Autonomous Mental Development (TAMD) have, in their first 6 years of publication, greatly contributed to the firm establishment and growth of the community of developmental and epigenetic robotics (Asada et al. 2009; Cangelosi & Schlesinger, 2015). This is a highly interdisciplinary community, based on the collaboration of roboticists, computer scientists, developmental psychologists, neuroscientists, and cognitive scientists, with a common, shared interest in developmental and cognitive mechanisms in natural and artificial cognitive systems (ranging from developmental studies with children to models and experiments with baby robots and simulated cognitive agents).

The journal, since the first issue in 2009, has published seminal, highly cited reviews on the general field of developmental robotics (e.g. Asada et al. 2009) as well as targeted surveys on specific research topics such as attentional mechanisms (e.g. Begum & Karray, 2011; Ferreira & Dias 2014), body schema (Hoffmann et al. 2010), tool use (Guerin et al 2013), and with a paper on the impact of robotic on cognitive science (Oudeyer, 2010) and a roadmap for language development (Cangelosi et al. 2010). This has been accompanied by focused Special Issues, such as the ones on cognitive architectures (Metta et al. 2010), active learning and intrinsic motivation (Lopes & Oudeyer, 2010), language grounding (Rohlfing & Tani 2011), computational models of neural and brain development (Jin et al. 2011), and behaviour understanding (Salah et al. 2014). All this has complemented the core, standard research articles publishing new models and experiments in developmental cognitive systems.

The achievements and impact of the TAMD journal has of course been the direct result of the original research and contributions from all the authors of the published papers and special issues. But this would have not been possible without the commitment and efforts of Zhengyou Zhang, the first and founding Editor-in-Chief of the journal, of the group of Associate Editors, and of the IEEE Computational Intelligence Society, with its financial support. In particular, I would like to acknowledge the work and dedication of Zhengyou who, with enthusiasm, led the establishment of the journal and its growth and transformation from a little-known, new journal to the highly reputed, key publication platform in the field. Zhengyou has now completed his 6-year role as Editor-in-chief, as per IEEE policy, passing the responsibility to me. It is therefore with great honour, and a sense of responsibility, that I am embarking in this initiative, with the aim of further supporting the journal and strengthening its sustainability.

Part of my remit as new TAMD Editor-in-Chief is to widen the authorship and readership of the journal. In particular, we aim to extend the scope of the

journal to include the wider community of scientists interested in cognition, as well as development, with more contributions from multiple related disciplines including cognitive systems, computational intelligence, cognitive robotics, developmental and epigenetic robotics, autonomous and evolutionary robotics, social structures, multi-agent and artificial life systems, computational neuroscience, and developmental psychology. The IEEE Computational Society is now leading a working group on the extension of the journal scope to extend its remit to the wider community on cognitive and developmental systems. Thus I would already like to encourage researchers in the wider field of cognitive systems, as well as developmental systems, to submit papers on their most original and interesting models and experiments. We also very much welcome proposals for new special issues on the many topics related to cognitive and developmental systems.

I look forward to the collaboration with all my fellows Associate Editors, and with all the authors of future articles, for the continue growth in impact and reputation of this journal.

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BIO

Angelo Cangelosi is Professor of Artificial Intelligence and Cognition and the Director of the Centre for Robotics and Neural Systems at Plymouth University (UK). Cangelosi studied psychology and cognitive science at the Universities of Rome La Sapienza and at the University of Genoa, and has been visiting scholar at the University of California San Diego and the University of Southampton. Cangelosi's main research expertise is on language grounding and embodiment in humanoid robots, developmental robotics, human-robot interaction, and on the application of neuromorphic systems to robot learning. He currently is the coordinator of the UK EPSRC project "BABEL: Bio-inspired Architecture for Brain Embodied Language" (2012-2016), and previously coordinated the Marie Curie ITN "RobotDoC: Robotics for Development of Cognition" (2009-2014) and the FP7 Integrating Project "ITALK" (2008-12). He also is Principal investigator for the ongoing projects "THRIVE" (US Air Force Office of Science and Research, 2014-2018), the FP7 projects POETICON++ and ROBOT-ERA, and the Marie Curie projects SECURE, ORATOR and DECORO. Overall, he has secured over £10m of research grants as coordinator/PI. Cangelosi has produced more than 200 scientific publications, and has chaired numerous workshops and conferences including the IEEE ICDL-EpiRob 2011 and 2013 Conferences (Frankfurt 2011, Osaka 2013). In 2012-13 he was Chair of the IEEE Technical Committee on Autonomous Mental Development. In January 2015 he became Editor-in-Chief of the *IEEE Transactions on Autonomous Development*, and also is Editor (with K. Dautenhahn) of the journal *Interaction Studies*. His latest book "Developmental Robotics: From Babies to Robots" (MIT Press; co-authored with Matt Schlesinger) has just been released, as of January 2015.