WCCI Workshop on the Ethics and Social Implications of Computational Intelligence 2018

CALL FOR PAPERS

IEEE WORLD CONGRESS ON COMPUTATIONAL INTELLIGENCE

8-13 July 2018, Rio de Janeiro, Brazil

Aim and Scope

Today, Computational Intelligence (CI) techniques are embodied within many technologies. For example, Fuzzy Control is a central piece within most control systems for technologies such as washing machines. Deep Neural Networks are sitting today on most smart phones offering search-by-image capabilities. Evolutionary Computation is creating a leap forward in industry and robotics when coupled with 3D printing that allows evolved robots to come to life quickly and with low cost. CI researchers excel in designing and implementing these technologies to create significant positive impact on the economy and human society as a whole. It is incumbent upon us as socially-responsible CI researchers to understand the ethical and social implications of the technologies we create and champion. The objective of the workshop is to discuss the ethical and moral principles that govern the behaviour of CI technology, as well as the designer. The workshop will include keynote presentations, standard paper presentations and a panel discussion related to ethics and social implications.

Research Topics

- Potential impact of CI on the human workforce and distribution of wealth
- Potential impact of CI on privacy
- Possible bias in CI systems (e.g. can a deep neural network trained to detect lying from spoken language be more likely to get a false positive results for one racial group more than another)
- Safety of CI systems embedded in autonomous and automated systems (e.g. autonomous vehicles, nuclear power plant control systems)

- Human-machine Trust in CI Systems
- Specific applications of CI and the potential ethical/social benefits and risks (e.g. Marking of student assignments, assessment of legal documents, automated decision making in the stock market, medical research)
- Legal implications of CI (e.g. legal liabilities when things go wrong; how do you certify systems that can 'learn' from their environment etc)
- Need and direction for developing formal standards in ethics for CI
- Public perception of CI
- Impact of CI on human cognition and social relatedness

Important Dates

The important dates for the workshop are exactly the same as the main conference and can be accessed at WCCI 2018 Important Dates

Submission

Papers submitted to this workshop will appear in the IJCNN proceedings. Please submit your paper to IJCNN and follow the instructions at WCCI Paper Instructions

Organisers

Implications of Computational Intelligence.

- Primary Point of Contact: Associate Professor Matthew Garratt, UNSW Canberra, Australia, (Chair of the CIS Task Force on the Ethics and Social Implications of CI) m.garratt@adfa.edu.au
- Professor Chuan-Kang Ting, National Chung Cheng University, Taiwan
- Dr Keeley Crockett, Manchester Metropolitan University, UK
- Associate Professor Clare Bates Congdon, Bowdoin College, USA
- Dr Mario Pavone, University of Catania, Italy
- Professor Robert Reynolds, Wayne State University, USA
- Dr Sean Goltz, Edith Cowan University, Australia
- Professor Christopher Nehaniv, University of Hertfordshire
- Professor Sheridan Houghten, Brock University, Canada