



PLENARY TALK

Responsible AI for Implicit Cybernetics

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Abstract: I discuss the convergence of AI and HCI, which opens highly valuable possibilities for an extension of traditional cybernetics via feedback of human reaction as opposed to explicit reactions. At the same time, there are increased potential privacy risks, which we will discuss, as well as mitigation strategies. A number of example projects we have worked on in the Cyber-Medical area will round off the presentation.

Short CV: Prof Tom Gedeon is the Chair in AI at Curtin University and lead of Human-Centric Advancements, Honorary Professor of Computing at the Australian National University, International Research Professor of Informatics at Obuda University in Hungary, Honorary Chair Professor of Sai University, India. He was formerly Optus Chair in AI at Curtin, and previously Deputy Dean at ANU. He is currently on the Australian Research Council College of Experts and part of the ARC CoE Reference Group reporting to the ARC Board. His main research area is Responsive and Responsible AI. His focus is on the development of automated systems for information extraction, from physiological data and eye gaze, as well as video, textual and other multimodal data, and for the synthesis of the extracted information into humanly useful information resources, primarily using neural/deep networks, delivered in real, augmented and virtual environments. He has over 400 publications, and has run multiple international conferences. He is a former president of the Asia-Pacific Neural Network Assembly, and former President of the Computing Research and Education Association of Australasia. He is Vice-President Organisation and Planning for the IEEE Systems Man and Cybernetics Society. Tom has been General Chair for the International Conference on Neural Information Processing (ICONIP) three times. He has been nominated for VC's awards for postgraduate supervision at three Universities. He is recently an associate editor of the IEEE Transactions on Fuzzy Systems, and for the INNS/Elsevier journal Neural Networks.

