ICAIR 2024

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Mini Track on Examining the Future of AI and Human Systems Integration

Mini Track Chair: Lori D. Coombs, Marymount University, USA

Responsible Artificial Intelligence (AI) is required for developing a solid global framework that ensures AI considers the best interests of humanity. The scope of this mini track highlights how humanity-centered design influences Human-computer interaction (HCI) and impacts development of Human Machine Interfaces (HMI) and Human-computer Interfaces (HCI) for Human Systems Integration (HSI) purposes. Responsible AI should mitigate bias, ensure privacy, and consider humankind to yield reliable system outputs aimed at attaining the 17 sustainable development goals defined by the UN: no poverty, zero hunger, good health, quality education, gender equality, clean water, clean energy, economic growth, industry innovation, reduced inequalities, sustainable communities, consumption / production, climate action, marine life, terrestrial life, peace/justice, and partnerships for the goals. HSI is an approach for developing systems that focuses on interfaces between humans and complex intelligent systems in operator, maintainer, sustainer, trainer, and designer roles. From a business perspective, the goal is to integrate elements that enhance suitability of delivered systems at the lowest total ownership cost throughout the acquisition and design processes. This mini track studies how interfaces are used in everyday tasks such as touch ID sensors to access touchscreen tablets and mobile phones, as well as GPS voice command technology that allows users to control navigation systems using a voice user interface (VUI) in user-friendly ways. Talks will examine technical aspects of complex intelligent systems, AI bias, the importance of clean data sets, and how wealth created by machines may be distributed as the human workforce is reduced.

Theoretical and practical contributions, are invited to this mini track. Potential topics include, but are not limited to:

- How algorithmic prejudice, negative legacy, and/or underestimation bias in AI affects data collection
- Using AI, ML, Deep Learning, Reinforcement Learning and Neural Networks to enhance platforms (hardware and software)
- Cybersecurity implications associated with critical infrastructures that use HSI
- NextGen platforms and the evolution of human end-users in technology design
- Advances in policy to incorporate HSI planning in global frameworks
- How the draft text of the Recommendation on the Ethics of AI developed by 193 Member states and the United Nations Educational, Scientific & Cultural Organization (UNESCO) impacts HSI by supporting effective implementation

Lori D. Coombs, MBA, MSE is an Assoc Prof at the Univ of Arizona Global Campus. Her career began with former US Vice Pres Candidate & Senator Joe Lieberman. She was appointed Delegate by Joe & former US Vice Pres Al Gore in 2000. She is CEO of WWCM, & Director of WWCM Academy, a nonprofit. She supports teams at NASA & C6ISR DoD programs. She is pursuing a D.Sc. in Cybersecurity at Marymount Univ. Her work on, "AI Risks in Higher Ed," is published in the EJEL.
Research: *Cyberpsychology, Geology, Astronomy, Heliophysics, Space Policy, Intl Space Law, Title 51USC*

Submission details

In the first instance a 300 word abstract is required, to be received by **15th May 2024.** Submissions must be made using the online submission form at https://www.academic-conferences.org/conferences/icair/icair-call-for-papers/

If you have any questions about this track, please email the mini track chair: LDC72459@marymount.edu

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