Expression of Interest: Empowering People in Human-Robot Collaboration Workshop

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Dear workshop organisers,

I am writing to express my interest in attending the Empowering People in Human-Robot Collaboration workshop. I am a PhD candidate at the School of Cybernetics at the Australian National University. My research is focused on human-machine collaboration in healthcare, and I am particularly interested in exploring the concept of performance evaluation for these systems. The following are my research objectives.

- Studying current approaches to defining and evaluating performance of human-machine collaborations in healthcare
- Identifying the desired attributes of a performance evaluation framework for these systems
- Developing a performance evaluation framework for a selected class of human-machine collaborations in healthcare.

In my research, complexity science has come up as one approach that can potentially be effective in addressing the challenges of performance evaluation for medical human-machine collaborations, which can ultimately lead to a more effective and efficient healthcare delivery. Complexity science is the study of complex systems which are systems composed of many interacting parts. The system's behaviour as a whole cannot be predicted from the behaviour of the individual components. Complexity science allows us to carefully consider the patterns and processes that emerge from interactions between multiple elements of the context in which a human-machine collaboration takes place. These elements include the people, their roles, the machines, their task requirements and collaboration processes, the environment in which they work, and the existing workflows.

I am interested in learning more about different perspectives on collaboration between humans and machines (e.g., robots) and how they can help me proceed my research. I believe this workshop will provide me with a valuable opportunity to learn more about the latest research in this area and network with other researchers working on similar problems. In addition, I am confident that I can contribute to the workshop discussions in a meaningful way.

Thank you for your time and consideration.

Sincerely,
Amirhossein Asadi