

Workshop on Environment-Driven Requirements Engineering (EnviRE 2023), Hannover, Germany, Tuesday, Sept 5, 2023



Keynote: “Diversity and Inclusion: The Bedrock for Responsible AI”

by Professor Didar Zowghi

Abstract.

Diversity and inclusion (D&I) in AI underpins the ethical dimension of AI development, promotes fairness and bias reduction, and increases the reach and effectiveness of AI systems. It also plays a crucial role in ensuring that AI technologies do not inadvertently exacerbate social inequalities or marginalise underrepresented groups. In the application domain (Environment), Diversity and inclusion surface in various ways. In AI-driven environments, diverse input data and user experiences are needed to prevent biases and ensure equitable outcomes. AI systems must be designed to serve users in diverse environments and cater to varied needs, ensuring their effectiveness across a wide range of contexts.

The Problem Frames approach, traditionally a powerful tool for understanding and analysing software requirements in their environment, provides a structured methodology that can be instrumental in addressing D&I concerns. By thoroughly defining problem contexts, it can highlight the diverse needs of various user groups, promoting a truly inclusive design in the Environment within which the AI system will operate. In this talk, I will first introduce the concept of Diversity and Inclusion within the AI ecosystem. I will then discuss the challenges and potential solutions that have emerged in the literature for D&I in AI. I will also explore adapting and enhancing the Problem Frames approach to assimilate general principles of responsible AI and foster diversity and inclusion. I will also highlight some of our research efforts in D&I in AI at CSIRO’s Data61.

Speaker Bio.

Professor Didar Zowghi is currently a senior principal research scientist at CSIRO's Data61, the data and digital specialist arm of Australia's national science agency. She leads a science team researching Diversity and Inclusion in AI and Requirements Engineering for Responsible AI. In 2022, after serving as a full professor of Software Engineering and holding many academic leadership positions for 20+ years, she was awarded Emeritus Professor by the University of Technology Sydney. She also holds a conjoint professor position at the University of New South Wales.

Prof Zowghi serves on the program committee of many national and international conferences including the IEEE International Conference on Requirements Engineering (since 1998). She was its General Chair in 2010, Program Chair in 2015, Steering Committee Chair (2016-2018), and received Lifetime Service Award in 2019 by IEEE for her leadership in the RE research community. She is Associate Editor of IEEE Software and the Requirements Engineering Journal. In 2022, she received the IEEE Computer Society's TCSE Distinguished Educator award. She has published over 250 research articles in prestigious conferences and journals and has co-authored papers with 90+ researchers from 30+ countries.