SIMULATIONS UNLEASHED: EMPOWERING DECISIONS IN THE AGE OF AI

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ABSTRACT

Simulations are game-changers for decision makers, and even more so in scenarios where the impact of decisions is critical and quick decisions need to be made in rapidly changing environments. AI technologies have transformed the way we think about data, predictions, and decisions, yet it is with and within simulations that they both become truly transformative. This keynote will explore the key role that simulations play in harnessing the power of AI, allowing us to model complex systems, predict outcomes, and test scenarios with high accuracy. We will look at how simulations can be used to model complex systems and how AI technologies can be used to model and predict decisions within these systems. We'll discuss study design, stakeholder engagement and potential traps, as well as some recipes for success.

SPEAKER BIOGRAPHY

CLAUDIA SZABO is an Associate Professor in the School of Computer and Mathematical Sciences at the University of Adelaide. She leads the Complex Systems Research Group, whose focus is on decision-making in complex adaptive systems, in particular systems that operate in contested and dynamic environments. She earned her PhD from the National University of Singapore and her BCompSci from the Politehnica University of Bucharest. She is the Co-Editor-in-Chief of the *Journal of Simulation* and a past Program Chair of the Winter Simulation Conference. Her research includes modeling and analysis of complex adaptive systems, emergent behavior, and composable simulation models and their operation in environments where decisions have very high impacts. Her email address is claudia.szabo@adelaide.edu.au.