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**SIMULATION AND ARTIFICIAL INTELLIGENCE: A FOUNDATION FOR A NEW,  
REIMAGINED TOMORROW?**

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**ABSTRACT**

How do Modeling & Simulation (M&S) and Artificial Intelligence (AI) help us to understand the world around us? M&S techniques build a model from observations of a given system and simulate that model to make observations and to draw conclusions. AI uses logic and rules applied to large datasets taken from the system to derive observations and conclusions. M&S can be used where there is little data. However, models take time to build and experimentation can be computationally demanding. AI can make predictions from data rich environments. However, predications can lack explainability and AI can struggle to make “what-if” decisions from new scenarios. The weaknesses from both techniques are also their complementary strengths. The combination of M&S and AI together may create new and more powerful decision support tools that can benefit our global society.