Proceedings of the

65th Annual Meeting of the
International Society for the Systems Sciences
(#ISSS2020 Online)

The Art and Science of the Impossible: The Human Experience

An International Online Event

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FORWARD

In 2020, governments worldwide placed their countries in lockdown to preserve the health of their citizens. The term "unprecedented" rippled across Western media to describe the phenomena of deaths, governments' subsequent response, and the disruption to society on multiple levels. Climate change is a reality that humanity must address before reaching another existential crisis. At the same time, new forms of artificial intelligence are entering our lived experience. There are plans for trips to Mars, SMART cities, augmented and virtual realities, robots, and much more. What we once considered science fiction is becoming a reality as humanity pushes the boundaries of what was thought possible. We are experiencing a volatile, dynamic state of politics, technology, and society, that is creating ambiguous and uncertain futures.

There is an interrelationship between what we experience and observe in the virtual world and how it materialises in the physical world. Technology, especially machine learning, artificial intelligence, and automation, provide opportunities and threats for humanity and its environment. Together, we need to navigate a technology-filled future with a tightly coupled, interconnected and interdependent data-driven ecosystem that is diverse and complex.

The 2021 conference theme "The Art and Science of the Impossible: The Human Experience" is a call to think and act differently, including connecting and collaborating to solve the seeming "impossible" challenges we face. As much as the Anthropocene has created ‘messes’ and ‘wicked problems’, systems sciences and systems approaches provide opportunities to design and deliver holistic, anticipatory, and ethical solutions. Charles West Churchman (1968), one of the founders of critical systems thinking, suggests that we “see the world through the eyes of another” and that the “systems approach is not a bad idea.”

The International Society for the Systems Sciences (ISSS) is among the first and oldest professional organizations devoted to interdisciplinary inquiry into the nature of complex systems and remains perhaps the most broadly inclusive. We invited papers from systems scientists, researchers and practitioners in all domains of this dynamic human activity system in which we live need to cooperate to deliver cohesive solutions.

These proceedings enhance the body of knowledge of the Systems Sciences. Contributions from our community of researchers and practitioners cover broad areas of systems science, including the design and application of systems approaches to the natural and social sciences (natural and social), concept or position papers, and provide a platform for speculative (novel) thinking to deliver valuable insights that benefit business, management, science, education, and public policy. The ISSS Editorial Committee only accept and review original, previously unpublished research proposals and papers. The Committee ensure submissions support the conference theme and are written in English. At the conference papers are peer reviewed as authors present their papers in chaired paper sessions. The Vice President Publications and Research and the Editorial Committee conduct a final review and publish those papers that meet the quality standards.

I sincerely thank all the authors for their contributions, the Editorial Committee and the Chairs. I hope you will enjoy, be informed and inspired by these original works.

Delia Pembrey MacNamara
President 2020-21
International Society for the Systems Sciences (ISSS)

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