**Title:** From Big Data to Digital Twins: Promises and Perils

**Author(s):** Dirk Helbing

**Affiliation(s):** ETH Zurich, Switzerland

**Abstract:**  Digital technology is reinventing the ways we study, simulate and manage the world. Around the world, Big-Data-driven, AI-controlled forms of cybernetic societies are in the making. What are the promises? What are the perils? And why is science still needed, 15 years after Chris Anderson proclaimed “the end of theory” and that “the data deluge makes the scientific method obsolete”. This has to do with the properties of complex, networked systems.

So, was the FuturICT message, with the recent warning of “existential threats” from AI, voiced by “AI godfather”.

Geoffrey Hinton and others, finally understood? And what scientific challenges should we now be working on?