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LINK TO WEBPAGE: <https://www.icrea.cat/Web/ScientificStaff/luc-steels-539>

TITLE OF PRESENTATION: Why superintelligent AI will never exist.

ABSTRACT OF PRESENTATION

There is currently a new wave of hype about the opportunities of AI. It is of course great that the field is currently viewed as making a positive contribution to the economy and society, but the hype seems often based on an overestimation of what AI can do. My talk will define what AI is really about, survey the history of attempts to reach its goals, and present some of the most important insights and successful applications areas. Then I will discuss the limitations of what we know so far, scientifically and technologically, and whether there are fundamental limits to what AI can achieve. Concretely I will argue that the superintelligent AI talked about in the media is never going to exist - which does not mean that AI cannot be very effective and useful in many circumstances.

BIOGRAPHICAL NOTE

Luc Steels is a fellow of the Institute for Advanced Studies (ICREA) in Barcelona, embedded in the Institute for Evolutionary Biology (IBE - UPF/CSIC). In the nineteen seventies he studied linguistics at the University of Antwerp (Belgium) and computer science with specialisation in Artificial Intelligence at M.I.T. (US) under the guidance of Marvin Minsky. After working for several years for the company Schlumberger in the U.S. and France on expert systems for geophysical measurement interpretation, he came back to Europe and founded in 1983 the Artificial Intelligence Laboratory of the Free University of Brussels (VUB). With his group he achieved early breakthroughs in symbolic programming, knowledge-based systems, evolutionary computation, neural information processing, and behaviour-based robotics. In 1996 Steels became the founding director of the Sony Computer Science Laboratory in Paris which made major contributions to language emergence, citizen science, and computer music. In 2011 he joined the Catalan Institution for Research and Advanced Studies (ICREA) to work on the use of principles from evolutionary biology to advance the understanding and emulation of intelligence in artificial systems. Steels published a dozen books on various AI subjects as well as 350 research papers published in prestigious conferences and top level scientific journals. He is elected member of the Flemish Royal Academy of Science in Belgium and the European Academy of Science.