Book Launch: Robotics, AI, and Humanity. Science, Ethics, and Policy

Based on a Joint Workshop of the Pontifical Academy of Sciences and Pontifical Academy of Social Sciences

Artificial intelligence is at the heart of the epochal change we are experiencing. Robotics can make a better world possible if it is joined to the common good. Indeed, if technological progress increases inequalities, it is not true progress. Future advances should be oriented towards respecting the dignity of the person and of Creation. Let us pray that the progress of robotics and artificial intelligence may always serve humankind ... we could say, may it "be human".

Pope Francis, November Prayer Intention, 5 November 2020

This open access book examines recent advances in how artificial intelligence (AI) and robotics have elicited widespread debate over their benefits and drawbacks for humanity. The emergent technologies have for instance implications within medicine and health care, employment, transport, manufacturing, agriculture, and armed conflict. While there has been considerable attention devoted to robotics/AI applications in each of these domains, a fuller picture of their connections and the possible consequences for our shared humanity seems necessary. This volume covers multidisciplinary research, examines current research frontiers in AI/robotics and likely impacts on societal well-being, human – robot relationships, as well as the opportunities and risks for sustainable development and peace. The attendant ethical and religious dimensions of these technologies are addressed and implications for regulatory policies on the use and future

development of AI/robotics technologies are elaborated.

The book draws on a joint seminar of the Academies. Selected highlights from the book will be pointed out and emerging issues for policy and ethics in this fast-moving field of science and innovations shall be identified.

Agenda

15.00 Welcome and opening remarks
Joachim von Braun, Marcelo Sánchez Sorondo, Stefano Zamagni

15.10 Book highlights and reflections on emerging research opportunities
Chair: Joachim von Braun

Wolf Singer Differences Between Natural and Artificial Cognitive Systems

Koen De Backer, Timothy DeStefano Robotics and the Global Organization of Production

Gregory M. Reichberg, Henrik Syse Applying AI on the Battlefield: The Ethical Debates

Margaret S. Archer Friendship Between Human Beings and AI Robots?

Aimee van Wynsberghe Regulating AI: Considerations that Apply Across Domains

Kai-Fu Lee A Human Blueprint for AI Coexistence

15.30 Interaction with audience, including present chapter authors

15.55 Closing remarks
Joachim von Braun, Marcelo Sánchez Sorondo, Stefano Zamagni