

Rethinking Machine Ethics in the Age of Ubiquitous Technology

Part of the Advances in Human and Social Aspects of Technology (AHSAT) Book Series

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Description:

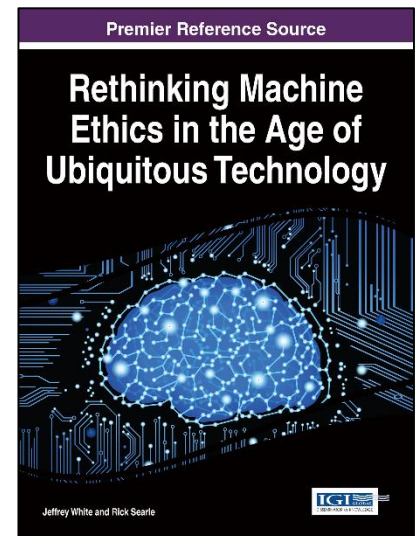
As the utilization of intelligent machines spreads to numerous realms, the discourse of machine ethics has also developed and expanded. Concerns over machine intelligence and the role of automata in everyday life must be addressed before artificial intelligence and robotic technologies may be fully integrated into human society.

Rethinking Machine Ethics in the Age of Ubiquitous Technology blends forward-looking, constructive, and interdisciplinary visions of ethical ideals, aims, and applications of machine technology. This visionary reference work incorporates ethical conversations in the fields of technology, computer science, robotics, and the medical industry, creating a vibrant dialogue between philosophical ideals and the applied sciences.

This timely publication features thoroughly researched articles on the topics of artificial moral agency, cyber-warfare, transhumanism, organic neural nets, human worker replacement, automaticity and global governance, security and surveillance, military drones, and more.

Readers:

This book serves as an excellent tool for policymakers, academicians, researchers, advanced-level students, technology developers, and government officials.



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Topics Covered:

- Artificial Moral Agency
- Automaticity and Global Governance
- Cyber-Warfare
- Embedded Technologies
- Facial Recognition Technologies
- Mechanized Military Intelligence
- Mechanized Workforce
- Organic Neural Nets
- Security and Surveillance
- Transhumanism

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Section 1

On the Cusp

Critical appraisals of a growing dependency on expanding intelligent machine infrastructure.

Chapter 1

Algorithms versus Hive Minds and the Fate of Democracy

Rick Searle, IEET, USA

Chapter 2

We Can Make Anything - Should We?

Chris Batemen, University of Bolton, UK

Chapter 3

Grounding Machine Ethics within the Natural System

Jared Gassen, JMG Advising, USA

Nak Young Seong, independent scholar, South Korea

Section 2

From the Outside In

Intelligent machine technologies as a window on human morality both as evolved and as evident in Internet discourse, today.

Chapter 4

The emergence of artificial autonomy: A view from the foothills of a challenging climb

Fernando Cardoso, CNPQ, Brasil

Luis Pereira, NOVA-LINCS, Portugal

Chapter 5

Semantic Analysis of Bloggers Experiences as a Knowledge Source of Average Human Morality

Rafal Rzepka, Hokkaido University, Japan

Kenji Araki, Hokkaido University, Japan

Section 3

From the Inside Out

The ethics of human enhancement from moral perception to competition in the workplace.

Chapter 6

Machine Ethics Interfaces: An Ethics of Perception of Nanocognition

Melanie Swan, Kingston University, UK

Chapter 7

Ethical Concerns in Human Enhancement: Advantages in Corporate/Organizational Settings

Ben Tran, Alliant International University, USA

Section 4

From Far to Near and Near to Far

The ethics of distancing technologies in education and warfare.

Chapter 8

Responsibility and War Machines: Toward a Forward-Looking and Functional Account

Jai Galliot, Macquarie University, Australia

Chapter 9

Ethical Responsibilities of Preserving Academicians in an Age of Mechanized Learning

Balancing the Demands of Educating at Capacity and Preserving Human Interactivity

James Willis III, Indiana University, USA

Viktoria Strunk, independent scholar, USA

Section 5

Wrapping Things up, Then Unwrapping Them Again

Integral visions of morality in a technological world, over evolutionary time, with evolutionary means, and with open questions about the final purpose of it all.

Chapter 10

Bridging Two Realms of Machine Ethics

Luis Moniz Pereira, NOVA-LINCS, Portugal

Ari Saptawijaya, NOVA-LINCS, Portugal

Chapter 11

Robots in Warfare and the Occultation of the Existential Nature of Violence

Rick Searle, IEET, USA

Chapter 12

Self-Referential Complex Systems and Aristotle's Four Causes

Aleksandar Malecic, University of Nis, Serbia

Jeffrey White received his Ph.D. in Philosophy from the University of Missouri-Columbia in 2006 with a dissertation titled "Conscience: Toward the mechanism of morality". He also earned his MA in Philosophy and MS in Chemistry from Cleveland State University in 2001. Since 2010 Dr. White has served as a Lecturer at KAIST. His past experience includes Research/Teaching assistant at the University of Missouri-Columbia, Teaching/Graduate assistant at Cleveland State University, and Lab technician/assistant at Bowling Green State University. Dr. White has numerous publications and has presented and participated in various conferences throughout his professional career.

Rick Searle is an educator and freelance writer who explores the intersection of science, technology, philosophy and politics. He is an affiliate scholar with the Institute for the Ethics of Emerging Technology and is a frequent writer for the IEET website. He also blogs at utopiaordystopia.com