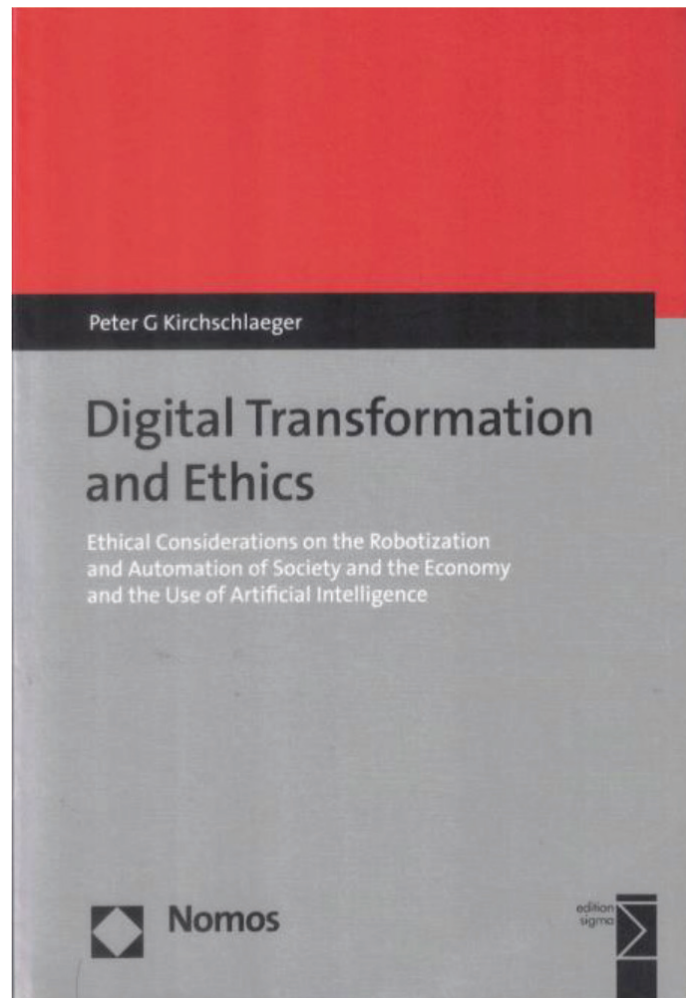# Digital Transformation and Ethics in the Context of Responsible Artificial Intelligence

Digital Transformation and Ethics: Ethical Considerations on the Robotization and Automation of Society and the Economy and the Use of Artificial Intelligence by Peter Kirchschlager; Nomos Verlag, Germany, 2021, ISBN: 9783848742875.

This new book by Peter Kirchslager discusses digitalization, robotization, and automation of the economy, and the use of artificial intelligence (AI) from an ethical perspective. The book can be read in the context of the responsible research and innovation (RRI) framework, where ethics is one of the key elements. The Horizon Europe programme of the European Union has several cross-disciplinary projects and interventions to research on ethical dimensions of the digital economy.

The book is structured into eight chapters. In the introduction chapter, the author explores the ethical dimensions of the digital transformation of society. The chapter also narrates the post-industrial revolution, i.e., the fourth industrial revolution or the 4IR, which brings in the robotization, and automation in the society. At the same time, the digital economy makes use of artificial intelligence and machine learning for rapid digital transformations and digital transactions. Big data plays a very significant role in influencing corporations' decision-making, consumerism, and promoting online products and services to digital consumers. The book shows that digital

technologies and AI are not energy neutral or ecologically sustainable. It also warns that technofixes are not silver bullets. Digital transformation and ethics go hand in hand. Gone are the years of reactive "check the box" compliance as the internet, social media, and ubiquitous cell phones have stripped away nearly all barriers between consumers and brands. The new book is a timely caution that ethics and human rights should be at the core of the latest surveillance, data collection, and risk governance technologies. The book discusses the opportunities and pitfalls of the new data-based technologies from an ethical point of view.

In Chapter 2, titled "The Correlation between Ethics and Technology", the author argues for possible ethical guidance for technologies to claim their universality. The author opines, "Ethics should focus on identifying technologies that open the door to ethical opportunities and therefore should be allowed depending on the ethical quality of interaction between humans and technologies" (p. 67).

Chapter 3, titled "Can Ethical Judgment be delegated to Technologies", deals with moral technologies, while the main objective, for example, would be to prevent robots from harming humans. The term' moral technologies' expresses the desire to give machines ethical principles and norms, expecting them to follow ethical rules, make moral decisions, and perform acts based on them. For example, in driverless cars, the machines follow every traffic rule and prevent any possible road accident to ensure riders' and pedestrians' safety. The questions of vulnerability, conscience, freedom, responsibility, autonomy, ethical judgment by humans, and overcoming the humans–machines dichotomy are briefly addressed in this chapter.

Chapter 4, entitled "Critical Review of Terms" briefly discusses the key terms frequently used in this book: robots, artificial intelligence, data-based systems, digital transformation, and roboethics or machine ethics. The etymological study of the keywords helps the readers in understanding the conceptual framework applied in this book.

Chapter 5, titled "The Complexity of Ethics", is relatively very short and helps the readers understand ethics beyond principles and norms.

Chapter 6, titled "Instruments for the Ethical Assessment", helps the readers learn the principle of responsibility, the principle of justice, and human rights as an ethical frame of reference. Most of the arguments and principles are generalist in nature and can be applied in the realm of digital transformation and the digital economy. Here the author brings in the principle of vulnerability, then how universal human rights protect exclusion and foster plurality.

Chapter 7, titled "Opportunities and Challenges from an Ethical Perspective, discusses the sectoral perspective of digital transformation. The author references data-based systems in healthcare and medicine, digitalization and automation of finance, automated weapons, and data-based systems in democracies, among other sectors. This chapter elaborates on the challenges and threats in data protection and privacy due to aggressive surveillance carried out by governments, corporations, and even healthcare providers using artificial intelligence, machine learning, and algorithms. In the context of nudging through algorithms, Peter explains, "what actually happening with 'nudging' is that humans are influenced without noticing or being able to notice that they are being 'nudged'" (p. 307).

Chapter 8, titled "Outlook: How to Create a Future Ethically", the author evaluates ethical and legal framework for techno-logical progress, then proposes a "Society-, Entrepreneurship-, Research-Time Model" (SERT) as a moral impulse for interdisciplinary dialogue. He also deliberates insurance, taxes, patents, research, education, and sustainable development in designing humane data-based systems. Lastly, the chapter introspects the principle of vulnerability in the context of the COVID-19 pandemic and threat mitigation in times of data-based systems. There is one drawback to this book. There is no book index, which is very unlikely for a scholarly monograph. Although, there is an enriched list of references helping the readers to explore the topics.

The book brings more clarity to the key topics mentioned in the title and subtitle of the book. It also brings in much-needed theoretical perspectives on ethical considerations in the digital economy and knowledge societies. Thus, the book is undoubtedly a good read for the scholars and social scientists working on responsible AI, AI for all, and data-based systems.

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