WIRTSCHAFTSETHIK IN DER GLOBALISIERTEN WELT

Christoph Lütge / Matthias Uhl
Alexander Kriebitz / Raphael Max (Hg.)

Business Ethics and Digitization

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Preface

In the last two decades, digitization has evolved as one of the major topics in philosophy and ethics. This development is driven by growing awareness of the consequences of digital technologies, which are influencing our everyday lives to a stronger degree than preceding technological changes. Digital technologies have literally become part of our life and include the devices we use to communicate, to book a journey, to make financial transactions or to drive us from one place to another. Another interesting feature of digital technologies is that they are rapidly disseminated. The speed in which digital technologies spread and their closeness to everyday life has been a driving factor of the hopes and fears of human beings viewing upon these technologies. The interest in digitization has manifested itself in literature, particularly in science fiction, which appears to dominate the narratives and public perception on AI. Policy makers and entrepreneurs alike are confronted with the question, whether digital technologies will be used to replace, to supervise or to control human beings. Developing an overarching vision for the use of digital technologies is therefore a vital task for ethicists and political philosophy.

Apart from these more fundamental questions, the discourse on ethics of digitization has also produced new classification schemes and concepts, unparalleled in traditional ethics. In fact, the concepts by ethicists focusing on digitization and AI often do not stem from traditional ethical approaches, but are influenced by applied ethics such as research ethics or biology. These tendencies are interesting, as they might influence the more general discourse on ethics. A recent publication of AI4People has established beneficence, non-maleficence, autonomy, justice and explainability as key principles behind AI regulation. The regulation on AI is quite important in the more general debate on how to deal with digital technologies, as it covers many aspects found in other digital technologies as well, such as interconnectedness and exchange of data. The exact impact on the ethical debate however has to be determined yet.

In line with the ethics of digitization, business ethics has evolved as one of the major areas of applied ethics. Business ethics however is not just mere part of applied ethics, but also an important link for integrating ethics, economics and other social sciences. It lies at the core of what Aristotle once termed as practical

philosophy. The clarification of principles such as economic liberty, justice and equality also requires an economic understanding of distribution and incentives. Moreover, enterprises have become important ethical actors in an increasingly globalized world. The increasing responsibilities of corporations in terms of human rights and environmental protection as well as the growing role of companies as providers of solutions for ethical concerns and problems highlights the relevance of business ethics in a contemporary world, as it defines the division of labor and duties between nation states, companies and individuals.

Business ethics and ethics of digitization, however, do not only share the fact that they are currently en vogue. Both disciplines can influence each other to a great extent. The growing use of digital technologies, which are primarily developed and used by private companies, and their ethical implications have many implications on both ethical discourses. The broader interpretation of AI ethics principles and the definition of values such as justice and beneficence requires finally on business ethical concepts and definitions, which make these concepts more tangible. At the same time, the discourse on digital technologies might also rebalance the current devision of responsibilities and reshape the interaction between enterprises and their stakeholders.

For integrating the discourse on digital ethics with the perspective on business ethics and vice versa, the Peter Loescher Chair of Business Ethics at the Technical University of Munich organized the conference of Digitization and Business Ethics. The conference brought together experts from different vocational backgrounds, including academics, practitioners and individuals from all walks of life as well as individuals with expertise in distinct fields ranging from political science to education. The following book is devoted to some of the contributions of the conference, which were noteworthy and might enrich the concurrent debate. This includes ethical dilemma solutions in autonomous driving as well as the search for general ethical principles and values in digitization. The book will not provide an entire picture of all conflict lines and relevant issues, which are relevant for the linkage between digitization and business ethics, as it is sheer impossible. Nevertheless, we should not underestimate the importance of the contributions collected here in initiating the discourse on how to integrate ethics of digitization and business ethics.

January 2020 The Editors

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Editors and Contributors

About the Editors

Prof. Dr. Christoph Lütge is director of the Institute for Ethics in Artificial Intelligence (IEAI), founded in 2019 at the Technical University of Munich and holds the Peter-Löscher Endowed Chair of Business Ethics. Prof. Dr. Lütge conducts research in the field of business ethics and investigates ethical agency under the conditions of globalization and digitization. In specific, he explores regulatory ethics—ethical behavior in the socio-economic framework of a globalized world.

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Dr. Alexander Kriebitz is a political scientist and postdoctoral researcher at the Technical University of Munich, who studies the overlap of international law, business ethics and international relations. His current project is a re-examination of literature on Business and Human Rights and the division of labor between states and companies in fulfilling human rights responsibilities. To this end, Alexander Kriebitz published research articles in the Business and Human Rights Journal and in the Human Rights Review.

Dr. Raphael Max is apostdoctoral researcher at the Technical University of Munich and economist with a philosophical background who studies political, economic and social conditions of human behavior in a modern globalized world. A particular focus of his research is the discrepancy between moral judgment and human action. Raphael's current project is the analysis of the normative perception of economic activities under uncertainty and moral evaluation of investment decisions.

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Business Ethics for the Digital Era

Christoph Lütge

1 Introduction

In debates about digital technologies, AI and related concepts like Industry 4.0, a number of ethical issues are raised regularly. Among these are questions of data protection, algorithmic fairness, decision-making in ethical dilemmas and others. However, from a business ethics point of view, these ethical questions are often discussed without taking business perspectives into account, although it will mainly be large companies who will be implementing ethics in the digital era. I will argue that the ethics of digitization needs to focus more on business ethical issues.

What is meant by digital technologies in this article? Here, I will use the term *Innovation 4.0* because it encompasses mostly the term (of German origin) *Industrie 4.0* and others like the *Fourth Industrial Revolution* (Floridi 2016). Innovation 4.0 includes questions of artificial intelligence (AI), Big Data, autonomous vehicles, the internet of things, smart grids, care robots, drones and other technologies. These technologies can bring a lot of benefits with them—beyond mere economic benefits and efficiency. They can help enormously to increase safety, reduce accidents, save lives and achieve greater sustainability. But before discussing some of these, I will mention the (ethical) challenges that come with them as well.

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2 Ethical Challenges of Digital Technologies

Digital technologies come with challenges that roughly fall into (at least) three categories:

First, there is machine ethics: the dangers of decision errors made by machines which follow inappropriate programs or made by machines that misinterpret certain processes.

Second, there is the area of information ethics: Here, the question is whether and how technologies might be manipulated by hackers, whether faulty data might be used or whether citizens might become excessively transparent. In the EU, the GDPR has been adopted as a means to counter this development.

The third challenge is the field of *work ethics*: a major complex of challenges lies in the domain of labor where human labor might be substituted on a new level by machine labor in the future. It is under discussion how serious that problem is, but it certainly is a topic that should not be neglected.

3 Ethical Risks and Benefits

Historically, innovation (in a broad sense) was seen in different lights. A very common notion that came up frequently was the fear of losing control over technological innovations. For example, this is the subject of Goethe's famous poem "Der Zauberlehrling" (written in 1797), in which a sorcerer's apprentice loses control over a broomstick (later made popular by Disney). Another historical example is the Luddite movement in nineteenth century England, which destroyed weaving machines as a form of protest—but could of course not stop technological progress.

3.1 What Risks does Innovation 4.0 Create in a more Specific Sense?

Since the first wave of industrialization, we have always been dependent on technological systems in many ways, whether of cars, trains or elevators, for example. So the dependency on accuracy may not be an entirely new dimension. But with innovation 4.0, it can be argued that this is dependency is taken to a new level.

For example, in the field of telemedicine, miniature AI-driven robots performing surgery in the (not so distant) future will need to be very precise. In autonomous driving, even small errors can have grave consequences. Also, a widespread worry is to lose the autonomy to take certain decisions, as for example in the case of autonomous driving: even if it is far in the distant future, some people fear they might not be allowed to drive manually at some point.

Moreover, with AI technology, the door might be more open for cyberattacks. Hacking has always been a serious issue for any digital technology, both a legal

as well as an ethical issue. Especially from the perspective of technology, this is often taken to be the main problem, even if there are others who are at least as important.

One of these others is the question of fairness and biases of AI and other digital technologies. There are examples of unfair results that AI can come up with. A notorious example is the discrimination of women in an Amazon software, which was given test runs (Wilke 2018): The software was used to rank incoming applications for a job at Amazon. Because the algorithms were trained with the database of amazon's new engagements over the last years, it learned that most of the new workers are men. Based on this previous discrimination, the developed ranking consisted mostly out of male applicants. Women were sorted out. Put simply, a software just decides on basis of the data it was trained with. And the problem is even more complex than that: according to the concept of "model bias", even if the attribute "gender" gets removed, other attributes like skin color, age, address, university and more often correlate with cleared attributes—and this may lead AI to wrong (or outdated or inadequate) predictions and suggestions. Companies will have to be very careful when choosing their training data—in order to get rid (as much as possible) of the model bias.

Another possible bias is the age gap in the use of digital technology—although we also see senior citizens using these technologies without any problems. The question might be how large this gap actually is and to take into account that it is constantly changing in size probably. The same applies for the "digital divide": it is currently under discussion whether it makes sense to speak about an "AI divide" (Williams 2018).

Finally, and certainly not least, there are questions of data privacy, surveillance and the danger of data misuse. The EU General Data Protection Regulation (GDPR) certainly has had an enormous impact in this regard, not just in Europe, but in practically all parts of the world. It is still, however, worthwhile to take into account that there are differences in the way that data privacy questions are perceived—and these are not just small ones. Privacy questions are seen in different lights in the US, China and Europe, but also within Europe: In Scandinavian countries tax declarations are often public—which would be unthinkable in countries like Germany or others.

Besides these problems of ethical risk there is another complex of issues that surrounds the implications for the labor market, but which would require a much longer treatment. In this context, the topic of digital literacy would also need to be addressed.

3.2 What Ethical Benefits Could Digital Technologies Bring About?

Having laid down some of the ethical risks of AI and digital technologies, I will now turn to some of the ethical benefits they promise to bring with them.