Editorial

I am on my way to Berlin to open and attend the *Shaping the Future of Data Privacy* event, which is hosted by *Delphi*. This event is a satellite event to the *Data Natives* conference, which is Europe's largest platform for the data-driven generation, offering a playground for communities from all corners of the world who are eager to engage in discussions about data science, machine learning, and all data-infused tech. The data privacy and security event, as well as the Data Natives conference perfectly express and illustrate what Delphi is all about: offering a platform to individuals, companies and governments to have in-depth discussions about the future threats, potential gains and difficult-to-anticipate effects of emerging technologies. The debate on privacy and security also clearly shows that it is not either/or: data can fulfill the needs of individuals but, at the same time, bring with it the risk of having sensitive information misused or exposed. Companies must meet regulatory requirements but, at the same time, be competitive and future proof; governments are obliged to protect citizen's data and establish clear and feasible regulations but, at the same time, stimulate innovation and support companies in their endeavors. Only a multidisciplinary approach that brings stakeholders with different interests and views together can sharply unveil what the challenges and problems are, as well as discover and create pathways that overcome deadlocks and reveal long-term common interests. Delphi wants to contribute to offering an infrastructure that enables both recognizing technological disruptions and 'wicked' problems, and finding ways to tackle them.

In the same spirit, this issue of *Delphi* offers contributions that attempt to maximally recognize the intrusive power of new and emerging technologies and, at the same time, provide analytic tools to comprehend and critically relate to their workings. This volume contains four articles. *Andrea Rolke, Hans-Karl Rath and Jan Backmann* predict what they believe is a revolutionary change in purchasing. They think that digital developments in key industrial sectors will allow costumers, as well as public and private corporations to base their purchase decisions not only on price and performance characteristics but on a broad range of data and information that fits their interest, such as health concerns, sustainability parameters, and manufacturing methods. This development is, according to them, part of a much broader evolution of digitalisation that will both strengthen contractual obligations and compliance, and better fulfil regulatory and societal needs. *Van der Maelen* discusses the use of emerging technology for online age verification. He points out that existing measures to bar minors' online access to age-restricted contents have limitations that cannot be easily overcome using standard methods. Emerging technologies, in particular profiling, the use of attributes, and voice recognition, have, the author argues, great potential. However, the advantages of these technologies with regard to accuracy and efficiency, are counterweighted with potential threats to personal data protection principles and rights. *Van der Mae-*

len remains optimistic and believes that experimentation with emerging technologies to carry out age verification procedures should not be prohibited but stimulated. Yueh-Hsuan Weng and Takashi Izumo focus on AI governance. They observe that in recent years both public institutions and organizations like the EU and the IEEE have significantly contributed to the development of 'soft law.' However, the establishment of hard law, they argue, has been less progressive. Drawing on principles from the natural law tradition, they attempt to contribute to the development of hard law. Bas de Boer examines to what extent health monitoring applications (HMAs) can establish a relationship between the users of these tools and the 'healthiness' of their lifestyle. His phenomenological analysis of health shows that individuals using HMAs cannot simply objectify their 'healthiness' and intervene in it. De Boer suggests discussions about HMAs should not exclusively focus on how they empower or weaken citizens but rather on how these types of applications frame our physical body and prompt us to relate to it in a very particular way.

In the *Outlook* section, data privacy and security is discussed by Bernie Boscoe, Tine A. Larsen, Rob van den Hoven and Yoon Ho Auh. Boscoe formulates five recommendations: 1) prioritize data privacy, 2) make privacy policies in plain language, 3) store only what is needed, 4) secure the data and 5) consider obfuscation techniques to protect data. Tine A. Larsen, who is in the National Commission for Data Protection of Luxembourg, indicates that businesses, regulators and individuals all have to take their own responsibility in securing data privacy and security. She advocates soft empowerment based on a real dialogue between the different stakeholders, whereas moving to sanctions should be done if there is no other option. Rob van den Hoven van Genderen from the University of Amsterdam stresses that, to protect the 'individual data-subject,' industry and governments need to apply high level principles in the development and application of AI. A big challenge, according to him, is identifying responsible actors in operations of AI based on self learning algorithms, which seems unattainable. Yoon Ho Auh concludes the section by arguing that data privacy should be an extension of our innate natural privacy. Specifically he makes the claim that 'biomimicry can extend and perpetuate evolutionary methods favorable to the survival of our DNA into the digital realm: a natural data privacy.'

In the *Opinion* section, Caroline Calomme reflects on new ways of levying toll for the use of roads and warns for the risk of accidental mass surveillance by governments due to new technological developments in tracking the location of driving vehicles on a very large scale. She proposes rigorous interdisciplinary cooperation in order to prevent big brother mass monitoring. And finally, Siri Beerends discusses in the *Book Review* section Shoshana Zuboff's bestseller *The Age of Surveillance Capitalism*. Instead of providing yet another account of how users could get better ownership over their data, Zuboff points out that these debates fail to understand the exploitative business model that underpins our digital world. What makes Zuboff's book not just another book on capitalism, Beerends highlights, is that she succeeds in clearly illustrating that big tech companies are a threat to our humanity not only because machine processes automate information flows about us, but now also aim to automate

US.

The current issue of *Delphi* offers again a wide range of arguments and views with regard to the impact of emerging technologies on our society. Some authors highlight the great advantages of particular new technologies (like digitalisation in purchasing and age verification technologies) and believe that overcoming the risks that these technologies entail can only be accomplished through new technological innovations. Others emphasise the big threats that emerging technologies (like the effects of AI on data privacy and security) introduce and propose stricter regulation and rigorous co-operation, the right to be left alone, or the right to opt-out. However, all contributions express more or less explicitly that the discussed technologies are a knife that cuts on two sides, though they have different opinions on how we should protect ourselves from the side that we do not want. Some believe that the answer is more technology, whereas others propose different ways to limit the damaging effects of particular technologies or finding ways to regulate their employment. Some contributions also recognise that technologies like algorithms and machine learning not only influence but also radically shape our society in a particular direction. *Bas de Boer* very explicitly illustrates how health monitoring applications not so much enable us to monitor and improve our health but rather instigate us to relate to and frame what we consider a 'healthy' body in a very particular way. *Siri Beerends* shows that *Zuboff's* merit is not only depicting how big data profiling predicts our behavior but also how it changes it and prescribes what we wish and desire: 'the surest way to predict behavior is to intervene at its source and shape it'.

Although this shift from 'predicting' to 'shaping' is very intriguing, the question that is not explicitly addressed is how it is possible in the first place that these technologies are capable of deeply intruding in our selfhood, shaping our behavior and determining our wishes and desires. I believe answering this question requires a more thorough examination of our relation to our outside world, which I think will amount to recognising that we have always been influenced and shaped by our outside environment. It must be clear that this viewpoint does not aim to relativise the potential negative influence of new and emerging technologies; it rather further complicates our relationship with this technology. First of all, it indicates that new and emerging technologies do not unleash a situation without precedent but rather reveal that the human has never had a closed inner realm, detached from the outside world. However, this does not mean that with the advent of the latest technologies there is nothing new under the sun. Although the human has always been 'directed outwards,' new technologies are immediately intervening in and shaping the very fabric of her bodily and mental constitution. Therefore, these technologies often cannot be simply externalised but are increasingly becoming something that is and is not us, at the same time. They are both familiar and strange, both intimate and external. This makes the challenge that we are facing greater: how can we critically relate to something that is profoundly shaping our actions, decisions and personality? Moreover, if new and emerging technologies are disrupting established biological, social and technological configurations, will they not also affect and disrupt the very standards, laws, regulations, values, and

ideals that could be used to evaluate whether these new identities and life forms are individually desirable and socially admirable? In short, treatment can only be successful if it is preceded by a rigorous diagnosis. We need to recognise that technologies are increasingly becoming both the necessary condition for forming a stable society and an obstacle that prevents us from reaching the autonomy and uniqueness that we seek. But this does not have to be and in my opinion is not the end of the story: more adequately grasping how we are shaped by new and emerging technologies is the starting point from which we can arm ourselves against their undesirable effects – and feast on their fruits.

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