RUC

Roskilde University

Enquete: Hvad vil vi huske 2010'ernes danske litteratur for?

Man kunne ønske sig. Fire tendenser i litteraturen

svendsen, erik

Esther Oluffa Pedersen and Maria Brincker*

Philosophy and Digitization: Dangers and Possibilities in the New Digital Worlds

Abstract: Our world is undergoing an enormous digital transformation. Nearly no area of our social, informational, political, economic, cultural, and biological spheres are left unchanged. What can philosophy contribute as we try to understand and think through these changes? How does digitization challenge past ideas of who we are and where we are headed? Where does it leave our ethical aspirations and cherished ideals of democracy, equality, privacy, trust, freedom, and social embeddedness? Who gets to decide, control, and harness the powers of digitization and for which purposes? Epistemologically, do most of us understand these new mediations – and thus fabrics – of our new world? Lastly – how is the new technological landscape shaping not only our living conditions but also our collective imaginary and our self-identities?

Keywords: asymmetries of power, cybernetics, cyberspace, digitization, philosophy of technology

1 Dialectics of Control in Cyberspace

Going back to Wiener's (1950) classic *The Human Use of Human Beings: Cybernetics and Society*, we see that the core challenge to human autonomy and control was there at the inception of the digital age: The paradox is that as we extend our powers through informational control systems we simultaneously open the door to being controlled and constrained by these very systems that we create. Weiner and others saw both this conflict and also "the need for anthropologists and philosophers" (p. 182) to help us understand our humanity and guide the value and uses of cybernetics. Wiener's anticipated worries has to do with the obvious power of control systems to control human lives, but also with the temptation of

*Corresponding author: Maria Brincker**, Philosophy, University of Massachusetts Boston, 100 Morrissey Blvd., 02125-3300 Boston, MA, USA, E-mail: Maria.brincker@umb.edu. https://orcid.org/0000-0002-0871-9509

Esther Oluffa Pedersen, Philosophy and Science Studies, CUID, Roskilde University, Universitetsvej 1, Building 3.1.4, 4000 Roskilde, Denmark

humans to control other humans through these systems. The construction of digital interaction possibilities is creating opportunities to connect all the while it opens the door for unprecedented manipulation mechanisms, and the open question remains – who and how are we going to handle the new digital worlds of our own creation?

The word "cyberspace" is often only traced back to William Gibson's sci-fi short story "Burning Chrome," first published in 1982. However, as outlined in "The (Re)invention of Cyberspace" by Lillemose and Kryger (2015), it in fact has a deeper history with a Danish 1960s art collective called "Atelier Cyberspace." The artist/architect duo Susanne Ussing and Carsten Hoff were inspired by cybernetics to create sensuous exploratory artworks and spaces. In architecture they hoped to inspire decentralized flexible designs, "giving back the gift of creativity to individual human beings and allowing them to shape and design their houses or dwellings themselves" and thus counter the "rigid confines" of central planning so predominant in urban architecture. The authors prompt us to take the relatively unknown and brief project as an invitation to rethink what cyberspace is, could be, and should be in our current world:

> The "disrupted" nature of the project notwithstanding, Atelier Cyberspace nevertheless invites a rewrite of the history of the concept. Perhaps even more importantly, it is an early and splendidly visionary example of a distinctively organic and sensuous perception of technology that – quite ironically – disappears as technology evolves, replaced by the more rational logic of the machine. In that sense the Atelier Cyberspace project could almost be described as a piece of science fiction, a dream-like vision of a technology that was – or still is – ahead of its time, but not yet realised; a technology whose potential continues to challenge us to rethink and expand the horizon of how we perceive technology (Lillemose and Kryger 2015).

Thus, with these allusions to the histories of cybernetics and the term cyberspace, we hope to highlight a core tension of digitality that is still with us today – a tension that perhaps is inherent in every aspect of human development but nevertheless is felt acutely in our new digital worlds. Namely that digitization offers enormous freedom and space for creativity and human empowerment while the flip side of this freedom is enhanced control. In our present world the core controls and the extensive and asymmetric surveillance systems have been captured by a few hands, and for most of us the initial promise of cyberspace as a space for more autonomy could become its opposite. Thus, we face the same problem of autonomy that Rousseau (1762) sketched in relation to creating a political association that did not isolate political power in the hands of an elite of autocrats. Rousseau saw that political subjugation, inequality, and other maladies of culture were artificially, humanly created problems that only could be solved by human forces (Rousseau 1755, 119, 1972, 166). In a similar manner the dangers stemming from the

new digital worlds are of our own creation and thus the dialectics of freedom and control in the digital sphere allows for human solutions.

2 The Need for Human Agency and the Task for Philosophy

In his groundbreaking 1976 book *Computer Power and Human Reason*, MIT computer scientist Joseph Weizenbaum specifically worried about the increasing displacement of human judgement and ethics by technological instrumentalism. He stressed that an unreflective implementation of computer-driven solutions stood in danger of leading to a kind of logical and factual fetishism that tried to hide its own unquestioned values, dogmatisms, and dangers. He advises that we find the courage to challenge the "simplistic worldviews inherent in granting imperial rights to science." Weizenbaum also proposed two grounds on which we should be hesitant to venture down otherwise feasible computational paths: One being that the new technology would challenge or displace core human and social values. The second reason to avoid proposed computational applications is if these "can easily be seen to have irreversible and not entirely foreseeable side effects" (p. 270).

Nearly a half century later, we have built a "brave new world" packed with side effects that scholars like Weizenbaum and of course writers like Huxley saw coming but many – academics included – ignored. The technological dream or ideology of uncomplicated progress has certainly not waned. In Silicon Valley the attitude is that all problems have technological – and mostly free-market capitalist – solutions. In some cases that is true, and several papers in this issue point to how we could design technology differently to better fit our basic human and social values. But these solutions each involve thinking first of societal and individual values before corporate profits. Further, we also need to dare admit when digital technologies are likely not able to save us – and one of these areas is still critical thinking. Deciding when to frameshift, to theorize, and ethically evaluate our own actions and directions are rich normative processes best left to humans.

We have luckily in recent years seen an enormous interdisciplinary wave of writers, artists, and scholars taking on issues of philosophy and technology. While within analytic philosophy there has been a continuous interest in "artificial intelligence" and questions about whether computers can think, etc.,[1] much of the important thinking about technology as it relates to the broader social and

---

[1] Hubert Dreyfus, Margaret Boden, John Searle, etc., but for a refreshingly new and critical approach within this tradition see Birhane and van Dijk (2020).

economic society has up until recently happened outside of Anglo-American philosophy.[2] However, helped by trailblazing philosophers like, e.g., Donna Haraway, Anita Allen, Don Ihde, and Helen Nissenbaum, an increasingly richly interdisciplinary debate is now taking place, engaging also with more public scholars like Tim Wu, Jaron Lanier, Joy Buolamwini, and Shoshana Zuboff just to name a few. Zuboff – frequently quoted within this issue – truly has succeeded in assembling and galvanizing not only academics across fields but also activists and practitioners.[3] The goal of this issue is to further interdisciplinary cross-fertilizations and to expand ongoing debates.

With this issue we also hope to echo Weizenbaum's passionate call for courage to think ethically and philosophically about our current rush to outsource decision-making to computers, their owners and programmers. The articles of this issue dive into various aspects of this new world and its perceived inevitability and glory. Overall, it also aims to expand our imagination of what is possible – which is a crucial but often overlooked aspect of human freedom. As several articles point out, our choice is not simply between getting with the current program of rapid "big tech" digitization or being lost in some kind of backward nostalgia for a pre-informational age. Rather, it is a question of enabling civic and democratic decision making within and about our digital worlds. Better design arguably comes from a creative, flexible, and broad thinking ethical and political mindset. We urgently need to engage in discussions about societal values and how information technology can be put to use to further the values we cherish. And how to actively prevent – behind the backs of most of us – the dismantling by technological developments of the civic and democratic governance processes of our everyday life worlds.

3 Six Perspectives on Current Trends of Digitalization

The articles in their own way take on this challenge of applying philosophical thought to both understand and re-envision the current trends of digitization. Three main themes that repeat across multiple papers concern, firstly, surveillance

---

2 Note that the interest in philosophy of technology as it relates to politics and society has been more continuously present among continental thinkers, with Heidegger, Foucault, and Marcuse as essential anchoring figures, and exploding over the past 30 years, for example, through the works of Bernard Stiegler, Andrew Feenberg, Bruno Latour, Mireille Hildebrandt, Yuk Hui, Beate Roessler, Julie E. Cohen, etc.
3 See Zuboff (2019) for her magnum opus and recent NYTimes op-ed (Zuboff 2021) for more public facing work.

and algorithmic decision-making – its nature (Søe), harms (Brincker), acceleration (Vestergaard), normalization (Selinger and Rhee) – and possible rethought ownership (Schneider). Another reoccurring theme is the harm of the widespread myth or ideology of "technological determinism." Namely, the notion that even though technology is made and implemented by human hands, we somehow are entirely incapable of shaping its developments and use. Several papers explicitly analyze and express concerns about this notion (see especially Vestergaard and Brincker), and others implicitly counter it by way of proposing new directions (see especially Alfano and Schneider). A last theme that repeats in these articles is the importance of public spaces, and the need for new ways of supporting the social and democratic fabric of society in the face of current trends of surveillance and misinformation (Søe, Vestergaard, Brincker, Alfano, and Schneider). But in spite of these overlaps each article takes on different questions, and here is a brief outline of each.

In "A Story of Surveillance? Past, Present, Prediction," Sille Oblitz Søe makes a comparison between how we as humans make observations and develop ideas about noticed strangers and the surveillance and profile modeling made possible by digital technology. The article centers around the experience of observing and contemplating the life of a complete stranger who happens to have had the same pattern of movement in the inner city of Copenhagen. It asks the question whether such incidental observations, and hypotheses about who this stranger is, can be said to be a form of surveillance. This opens up for Søe's major concern, namely, about digital surveillance. The systematic and purposive tracking and recording of information allows the possessors of the data to generate new insights also from the metadata that could not have been discerned without the surveillance. Thus, digital surveillance has effects in our lives as algorithms create profiles of who we are. Profiles and predictive models are created with detached algorithms that do not explain or reason but deliver answers with increasingly vast amounts of data. The allure that simply having more data makes the profiles and predictions more correct relies on the false premise that just because a model is created it also has access to the right assumptions, correlations, and serves a good purpose. Søe argues, via her contrasting story of observing a stranger, that the contexts of data production and processing need to be scrutinized in a critical manner.

In a sense this is exactly what Mads Vestergaard does in "The Need for Speed – Technological Acceleration and Inevitabilism in Recent Danish Digitalization Policies," as he carries out a study of how digital solutions are implemented in the Danish state. In Vestergaard's qualitative content analysis of the reasoning in policy papers from 2015 to 2020, and their underlying sociotechnological imaginaries, he underlines how economic ideals of efficiency, optimization, growth, flexibility, and competitiveness have been the primary rationales in digitalization

rhetoric in Denmark. Since 2018 a change in direction can be detected as civic and democratic ideals gain prominence without overruling the economic arguments. This shift enables Vestergaard to argue that the nature and progress of digitalization can and should be questioned. The narratives before 2018 underline the imperative for the Danish state to adapt to technological developments and thus leave little space for discussions of purpose, but the later inclusion of values signals a less inevitablist approach. The new prominence of significant civic and democratic values in the policy papers after 2018 coincides with the implementation of the EU laws of GDPR as well as a growing public concern about transparency and privacy in the wake of the Facebook–Cambridge Analytica scandal. Vestergaard critically examines underlying technological determinism and introduces the theory of sociotechnical selectionism as a means to regain more space for human agency and non-economic values while explaining why and how technological development seems to follow predictable patterns.

Evan Selinger and Judy Rhee take us back to the concerns pertaining to digital surveillance in modern societies in the article "Normalizing Surveillance." They argue that we must see the present as a transitional moment in history in which citizens, lawmakers, and private companies need to face up to the dangers that AI-infused surveillance tools pose to human autonomy. Though privacy scholars have been warning against the risks of surveillance, these discussions often turn around how to ensure control with the purpose and appropriate use of collected data. Selinger and Rhee argue that we should worry about progressive surveillance creep irrespective of its purposes, as surveillance becomes the new norm. In regard to normalization of surveillance, they point to the risks that (1) selective attention leads people to overemphasize benefits of surveillance; (2) that seemingly temporary surveillance measures become enduring; (3) that habituation leads people to view surveillance as unremarkable; and (4) that people believe surveillance is acceptable or even desirable because it is viewed as normal. By reference to experimental moral psychology, Selinger and Rhee give evidence that what we think is normal will also be understood as morally better than the abnormal. Thus, normalization of surveillance can have severe ethical consequences as favorably disposed normalization bolsters conformity and undermines independent thinking in situations where self-governance is needed. The normalization of digital surveillance technologies may create a slippery slope trajectory in which the social acceptance of surveillance perpetually leads to more, and diminish the call for justification of surveillance.

With a specific focus on the user interface of Netflix, Maria Brincker in "Disoriented and Alone in the 'Experience Machine'. On Netflix, Shared World Deceptions and the Consequences of Deepening Algorithmic Personalization" argues that personalization tendencies on entertainment platforms pose a threat to our

perspectival understanding of ourselves within the social world. The crux of the matter is that with personalization on streaming platforms our access to the shared world is increasingly removed or deceptively presented, thus leaving users isolated and disoriented. Brincker analyzes two examples from Netflix: (1) a change in user feedback and recommendations and (2) the implementation of personalized artwork images as advertisement for programs. With a theoretical framework based, for example, on political philosopher Hannah Arendt, Brincker explains how consumption of cultural objects is a crucial element in our self-comprehension and our belonging to a broader social community. The ability to epistemically orient ourselves within a social world depends on this world being a shared one in which to meet with others and mirror, as well as distance ourselves from each other. With increased personalization Brincker argues Netflix and other entertainment platforms prey on our desires for social representation and access, and they actively create shared world illusions that are not only deceptive but also harm our capacity to epistemically orient ourselves. Brincker underlines that this need not be the case as platforms could create interfaces that embed navigational options which not only highlight shared world features but also anchor our understanding of the personalization opted into.

Mark Alfano raises the question of whether the information technology behind blockchain may enhance trust in democratic elections in the article "Elections, Civic Trust, and Digital Literacy. The Promise of Blockchain as a Basis for Common Knowledge." Taking the Indonesian elections in 2014 and 2019 as an example, Alfano argues that a combination between paper ballots, vote tallies, and local blockchain recordings of the results may lead to trusted and trustworthy election results in countries with long traditions of corruption and voting fraud. The main idea is that with blockchain technology in place the defensibility as well as the contestability of election results can be safeguarded. Blockchain, as a manner of collectively recording the local tallies, warrants common knowledge of the results and thereby ensures that the cumulation and final results are not tampered with. It serves as a commonly known copy of the official election result that publicly and independently can be used to reflect the official outcome and create civic trust. The combination of paper ballots, witnesses of counting, and blockchain recording enables both winning and losing parties to reassure voters of the result's accuracy. However, as Alfano underlines, blockchain as a technological tool to enhance coordination, cooperation, and trust in election results is dependent upon an initial degree of civic trust in the witnessing of results. To implement blockchain technologies, a well-functioning digital infrastructure and digital literacy has to be widespread in the population. Furthermore, introducing blockchain to ensure the fair counting of votes cannot hinder pre-election voter intimidation, gerrymandering, and disenfranchisement efforts from taking place.

In the final article, "The Institution of Privacy: Data Protection versus Property Rights to Data," Henriques Schneider proposes that some privacy protection difficulties and problems of data misappropriation on the Internet could be ameliorated if we allow for individual data ownership. His proposal relies on a differentiation between information, data, and datapoints. Datapoints are understood as the specific data entries generated by individuals flowing in the information streams of different data designators. If the individuals who create the datapoints can gain property rights over them, then their decisional rights on whether they will sell them to platform owners, etc., could be protected. Schneider suggests that property rights to datapoints could also create incentives in the holders of these rights to align their interests and responsibilities to their actions, thus regulating online traffic by means of contracts, torts, and restitution of rights between owners of datapoints and online businesses that providing internet search options while buying individual datapoints from users. However, as emphasized by Schneider, there are also obstacles to the implementation of such property rights. Many of these are due to the fact that datapoints are created in networks and are currently profitably proprietary to data corporations. Further, they would likely not be amenable to sales on public marketplaces. Schneider's ideas sketch a research program to be conducted in the interface between philosophy and economics. They furthermore indicate that the questions of how to regulate internet businesses, protect the privacy of individuals, and enable common exchange on the web should be reflected upon from many angles.

With the six articles in this special issue some pressing issues have been addressed. But most of all it has become evident that the fast development of the digital world with new technologies, new business possibilities, and new ways of human engagement require that we further reflect on where we are going and why. Thus, philosophy can be of ample use. Philosophizing about and critically reflecting upon our current situation and near future scenarios in the digital world may help us steer the technological development in directions that can enhance human prosperity.

References

Birhane, A., and J. van Dijk. 2020. "Robot Rights? Let's Talk about Human Welfare Instead." In *Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society*, 207–13. New York: ACM.

Lillemose, J., and M. Kryger. 2015. *"The (Re)invention of Cyberspace." Kunstkritikk Nordic Art review*. Also available at https://kunstkritikk.com/the-reinvention-of-cyberspace/.

Rousseau, J.-J. [1755] (2002). "The Discourse on the Origin and Foundations of Inequality Among Mankind." transl. L. Crocker. In *The Social Contract and the First and Second Discourses*, edited by S. Dunn, 69–148. New Haven, CT: Yale University Press.

Rousseau, J.-J. [1762] (2002). "The Social Contract." trans. S. Dunn. In *The Social Contract and the First and Second Discourses*, edited by S. Dunn, 149–254. New Haven, CT: Yale University Press.

Weizenbaum, J. 1976. *Computer Power and Human Reason: From Judgment to Calculation*. San Francisco: W. H. Freeman and Company.

Wiener, N. 1950. *The Human Use of Human Beings: Cybernetics and Society*. New York: Avon Books.

Zuboff, S. 2019. *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power: Barack Obama's Books of 2019*. New York: Profile Books.

Zuboff, S. 2021. *The Coup We are Not Talking About*. New York: New York Times, Public affairs.