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Technology and the good society: A polemical essay on social ontology, political principles, and responsibility for technology☆

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ABSTRACT

How can we best theorize technology and the good society? This essay responds to this issue by showing how our assumptions about the meaning of the social and the political influence our evaluations of the impact of new technologies on society, and how, conversely, new technologies also shape the concepts we use to evaluate them. In the course of the analysis, the essay offers a polemic that questions individualist approaches to the good society and individualist assumptions about the social, especially in the analytic-individualist traditions and in postphenomenology, and recommends that more philosophers of technology use the resources of political philosophy to tackle the challenge of understanding and evaluating technology and society.

1. Introduction

Researchers in philosophy of technology agree that evaluating technology includes evaluating its ethical and social consequences, which may take the form of reflecting on the good society. However, there are divergent views on how to do this. How can we best theorize "the good society", and more specifically, "the good society with technology"?

Thinking about technology and the good life tends to focus on the individual, psychological point of view, for instance on well-being or individual eudaimonia or happiness [1–3]. More generally, philosophy of technology and applied ethics in the English-speaking world tends to focus on the individual as the level of analysis. "The good life" is understood to refer to the life of the individual, and hence the relation between technology and the good life is studied and evaluated at that level. This does not mean that society is not considered, but a particular conception of society and the social is involved. For instance, the societal consequences of technology are assumed to consist of the aggregation of its individual effects. Hence a lot of work in for example ethics of technology within the analytic-individualist tradition focuses on evaluating how technologies shape the life of the individual. Even work in Anglophone philosophy of technology that draws on the virtue ethics tradition such as the recent book of Vallor [29], while not neglecting practices[1] and cultures, still focuses on *individual* character, skills, and flourishment.

More generally, in spite of the continuing influence of Science and Technology Studies (STS), for example the work of Latour [e.g. 14], and of approaches in critical theory that focus on the social (for example the work of Feenberg e.g. [27] or Winner e.g. [28]), often technologies are nevertheless studied and evaluated at the level of "individual" artefacts and their relation to (individual) humans, leaving out their relations to other artefacts and the wider social-technological context: the practice, the society, and the culture. This is not only the case in so-called 'analytic' philosophy of technology; it also happens in approaches that originate in so-called 'continental' philosophy. Postphenomenology's[2] typical attention to how technology mediates human-technology relations, for

☆ **Focus**: Theorizing Technology and the Good Society.

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[1] In this essay I use the term "practices" in a loosely MacIntyrean sense as referring to activities that are inherently social, depend on the use and development of skill, are embedded within a community, and provide a way to learn and exercise virtue. For example, playing music is a practice, but also coding and the design or hacking of a technology can be regarded as a practice if it meets these criteria.

[2] While there is discussion about what postphenomenology is and how exactly it differs from phenomenology, for the purposes of this essay I assume the following definition inspired by the writings of Ihde and Verbeek. Postphenomenology is based on the work of Don Ihde and is a revision of traditional phenomenology which studies in an empirical way how technologies mediate relations between humans and their world.

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example in the work of Ihde [25] and Verbeek [26], tends to focus on individual humans and individual subjects. Social relations are not centrally part of their phenomenology and hermeneutics.

A similar lacuna exists for *politics*, in particular for political *philosophy*. Again Feenberg and Winner are exceptions, but they cover only a limited range of political-philosophical and sociological approaches. Well-known political theory from the English-speaking world, such as work by Rawls, Sandel, Walzer, MacIntyre, or Nussbaum is often not even mentioned, let alone used, within contemporary philosophy of technology. The danger here is that philosophers of technology try to reinvent the political-philosophical wheel, neglecting entire discourses and traditions.

In my work on philosophy of technology I have tried to remedy this one-sided understanding of the problem by paying attention to less individualist, more relational ontologies [4,5] and by connecting evaluations of technology to thinking about modernity [6,7], religion [8,9], and ecology [10]. I have also connected the issue of human enhancement to political-philosophical discussions [17].

With regard to the good life, there are many ways to shift the focus away from an individualist interpretation of the good life. For instance, inspired by ancient Greek thinking about the good life, one may choose to interpret *eudaimonia* in a more communitarian way (inspired by Aristotle and perhaps MacIntyre [11]), as being about the good life of the community and related to practices, and then apply this conception of the good life to technology. Then evaluating a particular technology means not only to study how it shapes individual lives and meanings, but also how the community and the practices change. Or one may interpret the capabilities approach in a more "social" way, not only by emphasizing the more social capabilities such as the capability of affiliation, one of Nussbaum's central capabilities [12], but also by showing that each of the capabilities depends on the social or on the community for its further development. Technology can then be evaluated according to its contribution to capabilities, understood as intrinsically connected to the social and the community. Such routes can lead to an understanding of the good life with technology that is more intrinsically social than current, more individualist understandings.

In this essay, I will further unpack the claims made in this introduction. However, I will not construct a direct normative argument or theory about technology and the good life, but instead make explicit and question some social-ontological and political assumptions in some kinds of current influential thinking about technology. In the course of my essay I reveal and question individualist assumptions and refer to concrete technologies (e.g. robotics) and problems in this field (e.g. privacy), but the emphasis is on questioning some approaches, in particular individualism. Then I argue that philosophers of technology should benefit more from the resources of political philosophy, for instance by using political principles to evaluate technology's contribution to the good life – although I will also argue that political principles should not be seen as stable and independent from technological development (a point that is typically missed by political philosophers, who usually do not read philosophy of technology).

2. Make your assumptions explicit: individualist assumptions and beyond

On the one hand, evaluations of the impact of technology on society could benefit from more fundamental and critical reflection on their, often salient, (descriptive) social-ontological and (normative) political-ideological assumptions. If we want a more critical and philosophical evaluation of technology, these assumptions need to be made explicit and discussed. For this purpose philosophers of technology can learn from (sub)disciplines such as social philosophy, sociology, cultural anthropology, and STS, and political philosophy, which offer theoretical resources that support more awareness and understanding of the social and political nature, and societal embeddedness, of our thinking about technology, the good life, and society.

Yet whereas for instance STS and Latour's work is already widely used in philosophy of technology, (sub)disciplines such as social philosophy, classical sociology, and (social) ontology are much less used but can be helpful for reflecting on the fundamental assumptions about the social that underlie the study and evaluation of technology. Moreover, an influential "school" in philosophy of technology, postphenomenology, has surely benefited from reading STS and Latour when it comes to recognizing the hermeneutic role and the agency of artefacts (see for example the work of Verbeek [26]), but has not really taken on board its more *social* approach and, more generally, attention for the social question as such. Mediation theory à la Verbeek asks about technological mediations between individual subjects and (individual) artefacts; social relations are not part of the human-technology-world scheme. The result is not only that the social and the cultural are largely neglected, but also that so far postphenomenology and mediation theory have not yet made explicit, or reflected on, their assumptions concerning the social in the first place. Yet for a mature philosophy of technology it is important to do this, in postphenomenology and elsewhere.

This is not only important for thinking about technology and the social, but also has implications for thinking about ethics and technology, and related concepts such as responsibility. For example, whether we start from the assumption that society is the sum of individuals, or instead from a more relational, communal, or even organic view of the social, will influence our view of responsibility for technology and will lead to different views of responsible research and innovation. For instance, individualist understandings will emphasize individual consent, whereas more communal versions might focus on participatory and communal innovation. If the individual level is seen as ontologically primary, responsibility for technology will be seen as an individual matter: it is the responsibility of the designers and users of technology to develop and use technology in a responsible way. For example, from an individualist perspective, the good life with robots is a matter of making sure individual designers and users create and use technology in a way that contribute to the good life of individuals, and responsible innovation will focus on individual consent. The use of robots in health care is then a matter of individual ethics: the ethics and consent of the individual users, care givers, etc. and the ethical implications for individual care receivers and their psychology. One may ask, for instance, if a cuddly care robot deceives vulnerable users such as the elderly or children. If, on the other hand, a more relational or communal view is taken, different questions may be asked, for instance what kind of practices and communities would be created by having robots play a larger role in health care and care for the elderly, and how social relations and social practices are re-configured by the technology. In the context of health care, users and patients are then seen as part of a web of social relations and as participants in social practices, rather than individuals. Questions concerning the good life are then expanded to a range of participants and stakeholders, with a focus on their relations and on the practice.

Furthermore, when we think about technology we also tend to make assumptions concerning the relation between the social and technology, or between the social and nature. For instance, our evaluation of technology's impact on society differs if we define the social in strictly human terms or if we include technology and materiality in the social, as influential approaches in STS and anthropology do (consider again Latour's work). The choice we make here has, again, implications for our thinking about for example

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