12 Technological Manipulation and Threats to Meaning in Life

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1 Introduction

On January 6, 2021, what was supposed to have been a purely ceremonial confirmation of Joe Biden's election as the new US president was interrupted by a violent mob. Rioters stormed the US Capitol building, where the congress and Vice President Mike Pence had gathered to confirm Biden's election. They were egged on by a fiery speech by former President Donald Trump. He had called for his supporters to "fight like hell" and "march on the Capitol". There had also been a build-up of propaganda about a supposed need to "stop the steal" of the election. According to the *Associated Press*, many rioters were believers in the so-called QAnon conspiracy theory (Seitz 2021). This conspiracy theory had reportedly been amplified by fake social media accounts set up by Russian internet trolls (Menn 2020). It had also been boosted by polarizing algorithms of social media platforms that had created filter bubbles. Followers of the conspiracy theory allegedly believed that Trump was fighting dark forces while being counteracted by the establishment and something called the "deep state". The violent mob caused the death of at least five people. They disrupted a purely ceremonial part of a democratic process that by all accounts had been exceptionally well run. And they were seen by some as "desecrating the temple of American democracy".

This event is noteworthy and deeply regrettable for many reasons. But three observations are particularly relevant to the topic of this chapter. First, although details about what exactly happened during this fiasco remain unclear at the time of writing, many of the rioting mob members seem to have been manipulated into behaving like they did.[1] Second, if one assesses the storming of the Capitol building in terms of whether this was a positively meaningful thing, it seems that this sad event was utterly meaningless. More strongly, it can be seen as the polar opposite of a positively meaningful event. Third, one key consideration that helped to make this so meaningless or even the polar opposite of meaningful was precisely that many of these violent protesters had seemingly been manipulated to act as they did. This impression is made even stronger by a further consideration: much of

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this manipulation seems to have been driven – or perhaps even partly perpetrated – by technologies that were supposedly created to "bring people together", like social media platforms and other algorithm- and AI-driven information and communication technologies.[2]

This example and these three observations help to illustrate the topic I discuss in this chapter. I discuss whether what I will call technological manipulation poses a serious threat to the values commonly associated with living a meaningful life. My thesis is that it does. Just as manipulation within interpersonal relationships threatens the values associated with meaningful human relationships, the ever-increasing manipulativeness of many technologies we use threatens the values associated with living a meaningful life.

Most discussions of apparent manipulation by technologies are about whether technological manipulation threatens human autonomy (e.g., Susser, Roessler, and Nissenbaum 2019a, 2019b; Klenk and Hancock 2019). There are not many published discussions particularly about whether technological manipulation threatens our opportunities to live meaningful lives.[3] However, I and others have recently written more broadly about whether AI, robots, and other emerging technologies and societal developments threaten our prospects for living meaningful lives, having meaningful relationships, or doing meaningful work (e.g., Campbell and Nyholm 2015; Danaher 2019; Smids, Nyholm, and Berkers 2020; Danaher and Nyholm 2020; Nyholm and Campbell 2022). Later, I draw on that other work. But I also draw on the recent work that has been done about how technological manipulation threatens human autonomy. After all, living an autonomous life is often thought to be a key aspect of living a meaningful human life (Smids, Nyholm, and Berkers 2020). Accordingly, my discussion in this chapter is not as far removed from some of the more common ways of approaching the topic of technological manipulation as it might seem to be.

What follows divides into the following sections. I start by briefly discussing manipulation in general and four different possible views about whether technologies can manipulate us (Sections 1 and 2). Next, I survey some widely shared views about what creates meaning in life (Section 3). I then formulate and defend my main argument to the effect that technological manipulation threatens to make our lives less meaningful (Section 4). Finally, I end with a brief concluding discussion (Section 5).

2 Manipulation by Humans and Technologies

There is no shortage of examples of what are claimed to be manipulative technologies: from deceptive social robots, to filter bubble-generating social media platforms, to recommender systems and other technologies steering and nudging us in different directions (Nyholm and Frank 2019; Sharkey and Sharkey 2020; Susser, Roessler, and Nissenbaum 2019a, 2019b; Frischmann and Selinger 2018; see also Jongepier and Klenk 2022). But

can technologies themselves really be manipulative? How should we think of what we might call "technological manipulation"? In order to reflect on these questions, it is useful to have a more general account of manipulation to work with.

Rather than developing an account of manipulation of my own, I will rely on Marcia Baron's (2003) view. A key strength of Baron's account of manipulation is that it captures the broad spectrum of different forms that manipulation can take. All of them involve trying to steer other people in ways that are overly controlling. For this reason, Baron regards manipulativeness as a distinctive kind of vice. The types of manipulation she discusses include the following main kinds – and here I am strongly influenced by Allen Wood's (2014) useful summary of Baron's view:

1. *deception*,[4] including outright lying, false promises, encouraging false assumptions, or fostering self-deception advantageous to the manipulator's ends, and getting the manipulated person to see or interpret things in a way that favors the manipulator's aims;
2. *pressuring*, including intimidation, wearing down the manipulated person's resistance, creating potential embarrassment if the manipulated person does not do what the manipulator wants, and mild forms of threats; and
3. *playing upon emotions, needs, and character weaknesses*, including making the manipulated person feel guilty about something, making them feel an unwarranted sense of gratitude toward the manipulator, taking advantage of their fears and worries, and so on.

When people manipulate others in these ways, they fail to properly respect those others. This is morally objectionable, as Baron and Wood see things. I would add that manipulativeness also threatens one's capacity to have meaningful relationships with others of the most valuable sort. I follow Immanuel Kant (1998), Ronald Dworkin (2011), and others in viewing meaningful relationships of the most valuable sort as being based on mutual concern and respect. Relating to one another on the basis of manipulation (one-sided or mutual manipulation) is the opposite of a positively meaningful relationship.[5] More generally, a life in which one is constantly being manipulated – or a life in which one is constantly trying to manipulate others – strikes me as a life that is not a deeply meaningful one. This is part of why I am interested here in whether technological manipulation is another thing that might threaten the values commonly associated with living a meaningful life.

3 Can Technologies Manipulate People?

Let us now consider whether technologies can manipulate people. I will briefly discuss four different propositions that might be put forward about

this issue. While all four have merits, I endorse some combination of the last two of the following propositions.

Consider first the proposition that *technologies can manipulate people*. One possible way of defending this idea is to follow Amanda Sharkey and Noel Sharkey (2020), by taking an outcome-based view of whether manipulation has occurred. They focus on deception in particular. As they see things, if the outcome of an interaction between a human and a technology is that the human ends up with false conceptions about something, or there is some general distortion of society's views about some issue as a result of the widespread use of a technology, then that technology has in effect deceived the humans involved. Whether the technology is able to have intentions to deceive is beside the point, on this view. If the just-described outcomes come about, that is enough for the human beings involved to have been deceived and thereby manipulated by the technologies in question.

Consider next the contrary proposition that *technologies themselves cannot manipulate people*. This is a little bit like the view that "guns don't kill people, people do". The idea behind this view – driven by the so-called instrumental theory of technology – is that there is no agency of the relevant kind in the technologies themselves (Gunkel 2018, 55–65). Technologies are, rather, tools with which people do things to others. On this way of seeing things, technologies cannot manipulate people, but people using certain technologies can manipulate other people. I am skeptical about a hard-lined version of the purely instrumental view of technology, which is wholly opposed to all attributions of agency to technologies (Nyholm 2020, ch. 2 & 3). Yet, it does make sense to say that the advanced kind of agency we typically associate with manipulation of the sorts that Baron describes is not something that any contemporary technologies are capable of. In other words, we might say, for example, that self-driving cars are a form of agents, since they can get from A to B in a functionally autonomous, goal-directed, and seemingly intelligent way. But at the same time, they are not – and nor are any other current technologies – sophisticated moral agents of the sort that can act or fail to act on the basis of moral reasons and be held responsible for their actions (Purves, Jenkins, and Strawser 2015; Nyholm 2020, 58–62). Similarly, since being manipulative is supposed to be a moral vice, for which moral agents can be held responsible, it might be thought that technologies cannot exercise the particular sort of agency associated with the vice of being manipulative.

Consider, however, this proposition: *technologies can relate to people in a manipulation-like way*. In other words, the idea might be that while technologies cannot be said to have the sophisticated form of agency associated with humans manipulating other humans, technologies can do some of the things we associate with human manipulation. In the same way, we might say that there are some aspects of human emotions (e.g., internal subjective experiences) that cannot be replicated in machines, even though there are other aspects of human emotions that can be replicated in machines (e.g.,

facial expressions, patterns of behavior) (Nyholm 2020, 143–47; Smids 2020). Just as a technology (e.g., a social robot) might have something that is emotion-like about its behavior, some technologies (perhaps the same social robot) could interact with a human being in a manipulation-like way. This might not be exactly like human manipulation of other humans. But it might overlap with key aspects of human manipulation and thereby be manipulation-like, so to speak.

Consider lastly this proposition: *technologies can be part of human–machine collaborations that manipulate people*. On this way of seeing things, technologies should never be seen as acting fully autonomously on their own, even if some technologies can be viewed as capable of a certain form of agency, which might involve some functional autonomy (Mindell 2015; Nyholm 2020, 62–65). ("Functional autonomy" refers to the capacity a technology might have to operate on its own for some period of time, without direct human steering.) For example, a military robot might operate on its own for some period of time and thereby exercise some functional autonomy. However, it will be part of a human–machine collaboration whereby certain humans have designed this technology, monitor its performance, sometimes update it, assess whether to continue using it, and so on – and whereby these humans are able to achieve their goals by "working together" with these technologies. This is a plausible way to think about most, if not all, autonomous technology systems: even when they are in their autonomous modes of functioning, they should always be seen as being part of human–technology collaborations aiming to achieve certain overarching goals had by certain humans (Mindell 2015). We could think of apparently manipulative technologies in this same way. That is, we could think of them as being part of human–machine collaborations that manipulate certain people. Sometimes, the technologies themselves might be doing most of the "work", so to speak. And they might be operating in a functionally autonomous mode. But we might still think that the best way to analyze what is going on is to say that this is a form of "team work" between humans and the apparently manipulative technologies (cf. Nyholm 2020, 64–65).

Which of these four propositions should we accept? Do we have to make a choice here? The two last propositions both have some plausibility to them. It is plausible to think that technologies can interact with humans in manipulation-like ways. It is also plausible to think that technologies can be part of human–machine collaborations that can manipulate people. So, it makes sense to speak of technological manipulation. By this expression, we can mean some combination of the last two propositions considered earlier. In what follows, when I speak of technological manipulation, I mean that technologies can relate to humans in manipulation-like ways and/or that technologies can sometimes be part of human–machine teams capable of manipulating people.

For example, a social robot that appears to have certain emotions and that apparently likes a certain human being (e.g., a sex robot designed to appear

to love its user) might be said to relate to this person in a manipulation-like way (Nyholm and Frank 2019). The human being might end up being deceived, might even feel pressured to act in certain ways, and the technologies might play upon certain emotions, needs, and character traits of the human being – and this might be manipulation-like.

To give another example, the social media platforms operated by technology companies like Facebook or Twitter – or the recommender systems operated by companies like Amazon or Netflix – might be seen in an extended sense as being parts of these organizations. In this way, human users might be manipulated by these human–technology collaborations into exhibiting behaviors such as impulsive shopping or binge-consuming of endless streams of content. Similar things can be said about labor-nudging technologies such as those used by companies like Uber. This might sometimes be manipulative human–technology teamwork in the senses of deceiving, pressuring, or playing upon the emotions, needs, and character traits of human users in ways that can appear to be steering those human users in excessively controlling ways (cf. Baron 2003).

4 Meaning in Life and Technological Threats to It

Let us set technological examples aside for a moment and consider something completely different, namely the case of the Swedish teenager Greta Thunberg, who was named *Time* magazine's 2019 "person of the year". Back in 2018, Thunberg was upset about what she had been learning about human-caused climate change and most people's (including most governments') failure to respond decisively to this massive problem. To bring more attention to this issue in her native Sweden, Thunberg started skipping school on Fridays, to go and protest in front of the Swedish parliament. Before long, news spread first in Sweden, and then throughout the world, about this teenager who was protesting against the lack of decisive action on climate change. "Fridays for Future" was born. Within the course of a year, Thunberg "succeeded in creating a global attitudinal shift", influencing hundreds of thousands, if not millions, of young people to take part in climate activism to save the planet for future generations (Alter, Haynes, and Worland 2019). Thunberg has traveled the world (in an environmentally friendly way!) to spread this message, led peaceful protests, spoken to world leaders, and succeeded in communicating her message about this issue like none before her.

I mention this because it is a good example of a meaningful thing to have done with a year of one's life (Nyholm and Campbell 2022). In contrast with the storming of the US Capitol building in the introductory example, these just-mentioned peaceful marches aimed to bring attention to climate change for the sake of future generations also appear to be deeply meaningful. Moreover, doing these things could be part of an overall meaningful life. When I talk about meaningfulness and meaning in life in this chapter, I am

using these expressions in a normative way to make normative judgments, and these just-considered examples are the sorts of things I am talking about (Wolf 2010). But as I see things, meaningful actions do not have to be grand, large-scale actions like those performed by Greta Thunberg. Nor does one need to start a worldwide movement for the common good in order to live a meaningful life. A life involving meaningful relationships, or in which one is able to do meaningful work (e.g., being a teacher, a nurse, a doctor, or whatever), can also be positively meaningful (Landau 2017).

In recent times, many philosophers working in the analytic tradition have gotten increasingly interested in meaningfulness. Authors like Susan Wolf (2010) and Thaddeus Metz (2013) have done highly influential work on this topic. Notably, much work by these and other authors has been quite abstract and meta-ethical in nature. Philosophers have discussed issues such as whether meaning is a wholly subjective notion; whether we should think of meaning as depending on objective features of one's life and actions that can be taken to have a not wholly subjective value; or whether we should perhaps accept some form of hybrid theory that understands meaning in life as having both subjective and objective components (Campbell and Nyholm 2015). Wolf (2010), for example, is well known for her thesis that meaning in life arises when one is passionate (= subjective component) about projects and activities that have value (= non-subjective or "objective" component).

Moreover, not only analytical philosophers are interested in this notion of living a meaningful life. Positive psychologists, to give another example, who empirically study human well-being and flourishing, are also interested in what is involved in living a meaningful life. Some leading voices in that field – such as Martin Seligman (2010) – also adopt partly non-subjective views about meaningfulness. Similarly, organizational psychologists study the idea of meaningful work, like some philosophers are also increasingly doing (Danaher 2019; Smids, Nyholm, and Berkers 2020). A leading idea in philosophical, psychological, and other discussions of meaningfulness is that in addition to seeking happiness, having various ambitions and so on, most people also desire to live meaningful lives, perform meaningful actions, have meaningful relationships, and do meaningful work (Seligman 2010; Metz 2013).

It should come as no surprise, accordingly, that one of the things that philosophers of technology have recently been interested in when thinking about emerging technologies is precisely the impact that these technologies might have on our opportunities to live meaningful lives, have meaningful relationships, and do meaningful work. Things like social media, robots and AI in the workplace, and social robots have appeared to some commentators to pose potential threats to the values we associate with living meaningful lives, having meaningful relationships, or doing meaningful work (e.g., Danaher 2019; Smids, Nyholm, and Berkers 2020).

I want to note here that, in my view, when we philosophize about this topic, we should not only concern ourselves with potential threats to

meaningfulness in our lives. We should also investigate possible technologically mediated opportunities for new forms of meaningful relationships, meaningful work, or ways of living meaningfully (cf. Smids, Nyholm, and Berkers 2020). Like positive psychologists who argue that psychologists should not only investigate worries and problems related to mental health but also happiness and psychological flourishing (Seligman 2010), I think that philosophers should also investigate the potential for new technologies and new societal developments to make our lives more meaningful. In general, then, I adhere to a form of "cautious optimism" about what new technologies can do for the meaningfulness of lives and relationships (Danaher, Nyholm, and Earp 2018; Nyholm, Danaher, and Earp 2022). That being said, however, here my focus is on possible threats to meaningfulness posed by manipulation and manipulative technologies. Since we are increasingly surrounded by more and more technologies that appear to be manipulative, it is important to get clear on how such technologies can pose serious threats to the values we associate with living meaningful lives.

In investigating such potential threats, it is necessary to descend from the more abstract aforementioned meta-ethical level at which many analytic philosophers discuss meaning in life. We need to move down to a more practical level, where we work with substantive conceptions of what makes projects, relationships, work, lives, actions, activities, and so on meaningful. Notably, there is fairly wide agreement about what sorts of things are intimately associated with living a meaningful life, having meaningful relationships, doing meaningful work, and so on. The following types of considerations are often referred to in publications on this topic.

Autonomy: living a life that is self-directed, where one is afforded the space to make one's own choices and shape one's own life, is often thought to contribute significantly to making one's life more meaningful. Consider the contrast: being told what to do by others, not having any personal autonomy at work or at home, and so on. It is more meaningful, it is often thought, to enjoy a certain amount of autonomy in one's life. Some even go so far as to say that living an autonomous life is the most important aspect of living a meaningful life. For example, Jesper Ahlin Marceta (2021) defends what he dubs an "individualist" theory of meaning in life, according to which autonomy is the main characteristic of a meaningful life. This is surely exaggerated and not a complete theory of meaningfulness in life. But it is plausible that personal autonomy is a key component of a meaningful life.

Actively pursuing a purpose: whether we are talking about meaningful work, or meaning in life more generally, it is a commonly accepted idea that it is important that one does work, or leads a life, that allows one to actively pursue a purpose or set of purposes that one deems to be worthwhile. Again, the plausibility of this can be brought out by considering the contrast. Suppose you do not think that, say, the work you do for a living has any clear purpose that you find worthwhile or that you identify with.

You are then likely to find your work less meaningful than if you view your work as purposeful in a way that you find worthwhile and identify with. Part of this idea is also that one is being active – rather than passive – in how one relates to the purposes in question. The more passive we are in life, it is often thought, the less meaningful our lives become. For example, passively consuming light entertainment might be fun and relaxing. But it seems less meaningful than actively pursuing some purpose we see as having positive value (Nussbaum 2004).

Relating to others on the basis of mutual care, trust, and respect: being part of a mutually supportive community and having good personal relationships characterized by mutual care, trust, and respect are further aspects commonly associated with meaningfulness in life. Again, this applies both to life more generally and to more specific contexts, such as work (Danaher 2019; Smids, Nyholm, and Berkers 2020).

Being part of something "bigger than you", which is positively valuable: it is a commonly expressed idea that our lives become more meaningful when we participate in something bigger than ourselves that is a positive force for the good (Wolf 2010; Seligman 2010). Think again, for example, of the "Fridays for Future" movement. Many young people who are part of this movement might experience it as a meaningful thing to participate in precisely because it is something bigger than them that is of positive importance. Doing something together with others in order to try to help to save the world for future generations can almost seem like something that might be among the most meaningful things one could possibly do, especially if this should turn out to be a successful movement (Di Paola and Nyholm 2021; cf. Parfit 2011, 616). Even if something bigger than us that is a force for the good ends up ultimately not achieving its goal (e.g., because a gigantic asteroid hits the Earth and kills all life on Earth 100 years from now), being part of a movement like that, which is bigger than us as individuals and is a force for the good, can still seem like a very meaningful thing.[6]

Self-development and human achievement: another set of ideas commonly associated with meaning in life concerns the development of one's skills and talents, the fulfilment of human potential, and the realization of human achievement. This, too, is associated both with meaningful work and meaning in life more generally (Danaher 2019). In the context of work, for example, work is usually considered more meaningful if there is room to develop one's skills and talents in the workplace and if one's work involves room for achievement (Smids, Nyholm, and Berkers 2020; Danaher and Nyholm 2020). In life more generally, it is often thought that having and developing human capabilities is part of living a good and meaningful human life (Alkire 2002).

Insight and understanding: the last thing I will mention as a common idea about what it is to live a meaningful human life is that it will often involve having a certain amount of insight and understanding. This could be either self-knowledge or knowledge and understanding about the world

around us (Hurka 2015). For example, Robert Nozick (1974) is appalled by the prospect of living in an "experience machine", in his famous thought experiment, partly because he thinks that if all of our experiences would be created via simulation – even a very pleasant simulation – we would lack proper knowledge and understanding of what is going on around us. Being able to make sense of ourselves and things around us is thought to be more meaningful than being deluded, misinformed, or otherwise misled about ourselves or about what is going on around us.

With the help of these ideas about what provides positive meaning in life – in life in general, in interpersonal relationships, at work, or in other parts of life – it is possible to systematically discuss whether technological developments pose serious threats to the possibility of living meaningfully. For each of the aforementioned aspects of meaning in life, we can ask whether technological developments pose threats to our opportunities for realizing these values.

5 Manipulative Technologies and Threats to Meaning in Life

Using the materials introduced in the previous sections, it is possible to formulate an argument to the effect that technological manipulation might threaten the values associated with a meaningful life. We can argue as follows:

1. If technological manipulation threatens one or more of (a) our autonomy (b) our capacities to actively pursue valuable purposes, (c) our capacities to relate to other people on the basis of mutual care, trust, and respect, (d) our opportunities to be part of things that are "bigger than us" that are good, (e) our opportunities for self-development and human achievement, or (f) our capacities for insight and understanding, then this technological manipulation thereby threatens our opportunities for living meaningful lives.
2. Technological manipulation poses significant threats to some, or perhaps all, of these different values associated with meaningful lives.
3. Therefore, technological manipulation poses significant threats to our opportunities for living meaningful lives.

How strong is this argument? I will now discuss the two main premises, first with three brief points about premise 1 and then a slightly longer discussion of premise 2.

The first thing I want to highlight about the first premise is that it speaks about *threats* to meaning in life. The premise does not assert anything about whether technological manipulation necessarily undermines meaning in life. It does not say that if we are subject to technological manipulation, we cannot possibly live meaningful lives, have meaningful relationships,

do meaningful work, and so on. That would be too strong. Accordingly, this premise is about perceived or real threats to meaning in life. Yet, the threats I am discussing here are, as I see things, significant threats. In other words, the threats to the values associated with meaning in life coming from technological manipulation are not accidental or insignificant in magnitude. Rather, the nature of technological manipulation non-accidentally threatens the values associated with meaningfulness in life, according to premise one, and does so in a high-impact sort of way.

The second thing I want to acknowledge about the first premise is that although there is fairly wide agreement about what contributes to meaning in life, not everyone working on meaning in life regards all these aspects as being key ingredients in a meaningful life. This is why I have formulated this premise in a disjunctive way. I say that if technological manipulation threatens one or more of these things, this should be seen as posing a threat to our opportunities for living meaningful lives. Moreover, I do not think of the different criteria for meaning in life that I have put on the list of disjuncts as necessarily being wholly separate from each other. There might be partial overlap among some of them.

The third and final thing I will say about the first premise is that while it does list a number of different things commonly associated with meaning in life, it also leaves out some things sometimes associated with meaning in life. Earlier, for example, I mentioned the influential work of Thaddeus Metz. Those familiar with it will notice that while Metz (2013) relates meaning in life to "The True, The Good, and The Beautiful", the third of these – viz. The Beautiful – is mostly left out here. This is not because I disagree with Metz and others (e.g., Danaher 2019) that the beautiful can be a source of meaning in life. It is rather that I did not intend to cover absolutely everything that can sensibly be seen as sources of meaning in life. I instead simply leave some things out, such as The Beautiful. A more thorough discussion of whether technological manipulation threatens meaning in life would also deal with that consideration and any other ones that can also be seen as potential sources of meaning in life that might be under threat when we are subject to manipulation.

I turn now to the second premise. More can be said about it than I will be able to say here, but I hope that what I say will be enough to make this premise seem plausible. I will go through the aspects of a meaningful life mentioned in the first premise one by one. For each aspect, I will discuss whether technological manipulation poses significant threats to it.

Autonomy: as noted earlier, much discussion about technological manipulation has precisely been about whether it poses a threat to personal autonomy. It has been plausibly argued – in particular by Susser, Roessler, and Nissenbaum (2019a, 2019b) – that technological manipulation does indeed pose a threat to autonomy. When we are being manipulated, Susser, Roessler, and Nissenbaum argue, this threatens our ability to act on the basis of ends we adopt as our own, for reasons that we endorse as ones

we want to act on the basis of. This is a threat to autonomy. Suppose that Susser et al. are right about this. Then since living autonomously is part of living a meaningful life according to premise one, we here have our first reason for accepting premise two. Notably, there are those – for example, Michael Klenk and Jeff Hancock (2019) – who argue that technological manipulation does not necessarily pose a threat to autonomy. But that is a much more controversial view than the view that it does pose such a threat. My inclination is to respond to Klenk and Hancock's view in a way that is similar to how I respond to Sarah Buss's view in Note 5; namely, if Klenk and Hancock can describe cases in which somebody is supposedly being manipulated but where this does not pose any threat to their autonomy, then most likely, "manipulation" is not quite the right word to describe what Klenk and Hancock are talking about. In other words, since I agree with Baron that being manipulative is to be too eager to steer or control others, I find it counterintuitive to say that somebody (or some technology) is being manipulative or does something manipulation-like without its being an instance of somebody's trying to steer another in an inappropriate way. I therefore take it that the view defended by Susser et al. is correct, though I acknowledge that there are those who disagree with it.

Actively pursuing a purpose: if Susser and co-authors are right that technological manipulation can lead us to act in the service of ends that are not our own, for reasons we may not endorse, this can also be seen as a threat to the second aspect of meaning discussed earlier, viz. the idea of actively pursuing a purpose we find valuable. Technological manipulation, moreover, can make us more passive,[7] with recommender systems and other technologies hooking us to our screens and making us passively consume content or trying to make us stay on some website as long as possible. We can think of this as partly being an "opportunity cost" argument. If it were not for the manipulative technologies designed to make us click on various links, remain as long as possible on some website, or passively binge-watch entertainment, and so on, we could be doing something else whereby we would in a much more active way be pursuing some valuable purpose we find important. I think it is a common feeling many share that if one has, say, passively spent too much time on manipulatively addictive social media platforms during a day, one has been "wasting one's time".

Relating to others on the basis of mutual care, trust, and respect: one of the things many online environments do – including ones designed to "bring people together" – is to create filter bubbles and echo chambers (Pariser 2011; Lynch 2017). People are manipulated into believing in conspiracy theories, their tribal instincts are triggered and run amok, and other perspectives are demonized. Go back to the initial example with the January 6, 2021, Capitol building storming, with people believing in the "QAnon" conspiracy theory and allegedly being manipulated by Russian trolls with fake social media profiles and polarizing online environments. Here, certain technologies – the social media platforms with their algorithms – can be

interpreted as interacting with users in manipulation-like ways that undermine people's perhaps already fragile willingness to care about, trust, or respect those who are seen as members of out-groups. In this particular example, tensions also broke out within the US Republican party where the Trump faction started demonizing any members of the Republican party who were not staunch Trump loyalists (Murphy et al. 2021). According to some of the reporting of what led to all of this – such as the reporting by the *Associated Press* cited earlier – this was boosted by various forms of manipulation, including what I am calling technological manipulation.

Being part of something "bigger than us" that is good: the example of the January 6, 2021, mob violence can also be interestingly discussed in relation to the idea that meaning in life can involve being part of something bigger than us that is valuable. Certainly, the members of the mob who had been driven by conspiracy theories and manipulation into joining a mob and storming the US Capitol building can be seen as participating in something bigger than themselves. However, a crucial component of being part of something bigger than us that is *a force for the good* is missing here. These people were manipulated into joining something bigger than them that was bad, regrettable, and antithetical to the idea of joining something bigger than oneself that is good. So, if it is true that they were victims of technological manipulation, that technological manipulation posed a serious threat to their opportunities to act in a meaningful way on this occasion.

Self-development and human achievement: when it comes to whether technological manipulation can be viewed as posing threats to opportunities for self-development and human achievement, many of the remarks made earlier about threats to opportunities to actively pursue valuable purposes become relevant again. The more we are led to behave as we do because technologies relate to us in manipulation-like ways or because human–machine teams are manipulating us to behave as the humans in those teams want us to behave, the less room there may be for self-development and human achievement on our part. Elsewhere, John Danaher and I have written about whether automation, AI, and robots in the workplace might create an "achievement gap", whereby it becomes harder for humans to realize the value of achievement in the workplace (Danaher and Nyholm 2020). It can plausibly be argued that when work is partly driven by manipulative "labor nudges" of the sorts that Susser et al. Susser, Roessler, and Nissenbaum (2019a, 2019b) discuss, this poses serious threats to our opportunities for developing our skills and realizing human achievement in the workplace. So, with respect to this part of meaning in life as well, there is a plausible case to be made for the idea that technological manipulation may threaten meaning in life.

Insight and understanding: turning lastly to whether technological manipulation might pose threats to human insight and understanding, here again some of the previous discussion about technological manipulation and some people's being led to believe in things like absurd conspiracy theories becomes

relevant once more. But we do not have to turn to this more extreme form of online polarization to have examples of how technological manipulation might threaten our opportunities for insight and understanding. The filter bubbles and echo chambers we are all manipulated by social media platforms into joining threaten to give us a very one-sided view of the world, as Michael Patrick Lynch (2017) describes in some detail in his striking book *The Internet of Us*. We can say, then, that insofar as positive meaning in life involves insight and understanding, and having a one-sided and polarized view of view the world is contrary to this goal, technological manipulation can be viewed as a threat to yet another aspect of a meaningful life.

Much more can be said about all of these issues. But based on this brief discussion, I submit that the second premise of the argument presented here enjoys strong support. Technological manipulation poses significant threats to all of the aspects of meaning in life considered earlier. Accordingly, the earlier-presented argument's general conclusion follows: technological manipulation poses significant threats to our opportunities to live meaningful lives.

6 Concluding Discussion

I have just argued that technological manipulation can pose serious threats to our opportunities to live meaningful lives, have meaningful relationships, or do meaningful work. It is appropriate to end with some remarks about limitations of my discussion and consideration of some possible objections that might be raised against it.

The first thing I should note is that I have not discussed possible differences in how grave the threats posed by different forms of technological manipulation to our opportunities to live meaningful lives are. It may very well be that threats to meaning in life posed by, say, technologies that help to manipulate people into believing wild conspiracy theories are much greater than the threats posed by, say, social robots that might be deceptive to some degree. It would be valuable to discuss particular examples in more detail and compare them with each other, to see which forms of technological manipulation pose the greatest threats to our opportunities to live meaningful lives.

A second limitation is that I have focused only on whether there might be threats to meaning in life posed by technological manipulation, without providing any corresponding discussion of what should be done to avert these threats. A fuller discussion would also consider this issue about possible defenses against these threats, again with a view to which of these threats are most severe. I have not done so here but hope to do so elsewhere. Having noted these two limitations of my discussion, I now turn to some possible objections that might be raised against it.

One potential objection might be a worry to the effect that discussing whether technological manipulation threatens meaning in life is a less

pressing topic than that of when, and in what ways, technological manipulation might be most wrong, blameworthy, or otherwise morally problematic. My response to this is I agree that that might be a more pressing question – especially if we think of a case such as the pro-Trump mob's storming of the Capitol that was the opening example. But there is no need to discuss only the most pressing questions, leaving all other interesting questions aside. Moreover, in some, less dramatic cases, where it is not immediately clear that the manipulation involved rises to the level of seriously blameworthy wrongdoing, there might still be a lingering sense that there is something regrettable and problematic about the manipulation in question. In such cases, we need to turn to other ideas or concepts to assess what the issue is. And here a question such as whether our opportunities for living meaningful lives are being threatened is one of the crucial questions that we can turn to. Moreover, as I see things, whether technological manipulation poses a threat to meaning in life is an interesting and worthwhile question in its own right – even if some other questions, such as whether somebody has acted seriously wrongly or should be punished or blamed, might be more urgent under certain circumstances.

Another objection that might come up might be driven by an adherence, on behalf of the objector, to the instrumental theory of technology. Somebody who thinks that it makes no sense to view technologies as being manipulative – and who would insist that only human beings can manipulate – might question whether this whole discussion makes sense, given that I have been asking whether technological manipulation can be a threat to meaning in life. To such worries, my answer is to remind the reader that I have not been assuming that technologies themselves can be manipulative in exactly the way(s) in which human beings can be. Instead, I have been taking it that technologies can relate to human beings in manipulation-like ways – and that technologies can be part of human–machine teams that can be manipulative in the ways in which they relate to human beings. If either or both of those things are true, that is enough for it to be worthwhile to discuss whether either or both forms of manipulation might pose significant threats to the values commonly associated with meaningfulness in life.[8]

Notes

1. Notably, this assessment seems to be shared by some of the rioters themselves. For example, one member of the mob, who became known as the "QAnon Shaman" in the press because of his extravagant attire, felt that he had been "duped" by Donald Trump, according to the lawyer of this rioter (Kilander 2021).
2. According to the company Facebook's mission statement, for example, the aim of that social media platform is to "give people the power to build community and bring the world closer together". https://investor.fb.com/resources/default.aspx (accessed on August 3, 2021)
3. Michael Klenk (2020) suggests a causal connection between manipulation and a dent to well-being via a loss of autonomy and thus defends a view that is broadly

congenial with my main argument in this chapter. Klenk does not, however, explicitly discuss the impact of technological manipulation on the meaningfulness of people's life but instead formulates his argument in terms of claims about well-being.

4. According to Susser, Roessler, and Nissenbaum (2019a, 2019b), we should make a distinction between deception, on the one hand, and manipulation, on the other. I see no strong reason to distinguish between the two; I agree with Baron and Wood that deceiving people can be one of the ways in which we might manipulate them to behave in some way.
5. I am skeptical of Sarah Buss's (2005) intriguing claim that manipulation and deception are often key parts of at the least the initial stages of good romantic relationships. It seems to me that Buss is mischaracterizing the type of interaction she is talking about (e.g., trying to present oneself in the best possible light to the person one is trying to impress etc.) in calling it manipulative and deceptive. If we follow Baron's view, we can say that if some behavior (such as those Buss is discussing when she discusses the initial stages of romantic relationships) does not qualify as trying to steer another's behavior in an overly controlling way, then that behavior is not manipulative in the morally objectionable way or perhaps not manipulative at all.
6. That said, I do agree with Samuel Scheffler (2018) that if there would be no future generations and we would be the last generation of human beings, this would make our lives less meaningful than if, as most of us believe and hope, there will be others coming after us, who can carry on some of our projects and traditions, and who will also continue the development of humanity long into the future.
7. For an argument about how robots and AI threaten to make people less willing to be active moral agents (and more likely to take on the role of passive moral patients), see Danaher (2017).
8. Many thanks to Fleur Jongepier, Michael Klenk, and the participants of their online manipulation workshop series. My work on this chapter is part of the research program "Ethics of Socially Disruptive Technologies", which is funded through the Gravitation program of the Dutch Ministry of Education, Culture, and Science and the Netherlands Organization for Scientific Research (NWO grant number 024.004.031).

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