

Democratic Potentialities and Toxic Actualities: Feenberg, Ihde, Arendt, and the Internet

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Abstract: In this paper I argue that while Feenberg’s critical constructivism can help us to see the political potential of technologies, it cannot help us to understand the political actuality of technologies without the help of postphenomenology. In part 2, I examine Feenberg’s attempt to merge Frankfurt School critical theory and SCOT into “critical constructivism.” In part 3, I focus on Feenberg’s analyses of the internet in order to highlight a blind spot in critical constructivism when it comes to threats to democracy that come from out of the demos itself. In part 4, I show how critical constructivism would benefit from adopting the theory of technological mediation found in postphenomenology by presenting a postphenomenological investigation of trolling and other forms of destructive behavior unaccounted for by Feenberg’s investigation of the internet. In part 5, I conclude by turning to the work of Hannah Arendt in order to show why, just as critical constructivism could benefit from becoming more postphenomenological, postphenomenology could benefit from becoming more critical.

Key words: critical constructivism, postphenomenology, mediation theory, Hannah Arendt, the Internet, democracy, trolling, individualism

1. Introduction

Postphenomenology has been criticized (Kaplan 2009; Feenberg 2015) for not offering a political perspective in its analyses of “human-technology relations” (Ihde 1990). Though Peter-Paul Verbeek (2011) has helped to advance postphenomenology by investigating the ways in which technologies mediate moral life, postphenomenologists (Rosenberger 2018; Gertz 2018a) have only recently begun to undertake investigations into the role of technologies in political life. One of the main reasons for this absence of politics in postphenomenology is likely due

to Don Ihde's (1990) attempt to retain what he sees as useful from Heidegger's (1962) analyses of technology—such as the focus on the ways in which technologies amplify and reduce various aspects of individual human experience—while trying to avoid what he sees as dangerous about Heidegger's (1977) analyses—such as the focus on the impact of “ancient technologies” and “modern technologies” on humanity as a whole.

This attempt to preserve Heidegger's (1962) insights while rejecting the conclusions Heidegger (1977) drew from those insights has been achieved in postphenomenology by adopting an individualistic perspective. Focusing on the ways in which technologies come between the “I” and the “world” has helped postphenomenology to produce nuanced accounts of how specific users relate to specific technologies in specific contexts. However, this approach is limiting when trying to offer an account of the political significance of human-technology relations insofar as political life cannot be analyzed solely from the perspective of an individual life. Consequently it should come as no surprise that while attempting to work in both philosophy of technology and political philosophy, Andrew Feenberg has remained committed to social construction of technology (SCOT) rather than turn to postphenomenology.

In this paper I argue that while Feenberg's critical constructivism can help us to see the political *potential* of technologies like the internet, it cannot help us to understand the political *actuality* of such technologies without the help of postphenomenology. In part 2, I examine Feenberg's attempt to merge Frankfurt School critical theory and SCOT into “critical constructivism” (Feenberg 1999). In part 3, I focus on Feenberg's analyses of the internet in order to highlight a blind spot in critical constructivism when it comes to threats to democracy that come from out of the *demos* itself. In part 4, I show how critical constructivism would benefit from adopting the theory of technological mediation found in postphenomenology by presenting a postphenomenological investigation of trolling and other forms of destructive behavior unaccounted for by Feenberg's investigation of the internet. In part 5, I conclude by turning to the work of Hannah Arendt in order to show why, just as critical constructivism could benefit from becoming more postphenomenological, postphenomenology could benefit from becoming more critical.

2. Critical Constructivism

What should a political theory of technology look like? For Feenberg, the answer to this question can be found by bringing together the Frankfurt School political philosophy of Herbert Marcuse and the social constructivism of Wiebe Bijker.

From critical theory, Feenberg takes the Marxist approach to philosophy that it should serve to change the world rather than merely interpret it. The aim of this approach is to reveal the historical processes beneath the power structures that have come to be seen as fundamental to society, that have created the illusion that inequality is natural rather than contingent. Feenberg's constructivism is therefore *critical* because it focuses on the ways in which philosophical analyses can contribute to political goals of emancipation and democratization.

From SCOT, Feenberg takes the social constructivist approach to technologies that they should be seen as the result of an ongoing process of competing stakeholders arguing over competing interests informed by various social and cultural values. The aim of this approach is to show that technologies are open-ended negotiations rather than the result of a closed process determined by merely technological values. Feenberg's criticism is therefore *constructivist* because it focuses on the ways in which technologies are contingent historical products rather than deterministic antihuman overlords.

It is the specific emphasis on contingency that Feenberg finds in both critical theory and SCOT that allows critical constructivism to operate as a political theory of technology. The key for Feenberg is the ability to move away from what he sees as the defeatism of determinism by focusing on what humans do to technologies rather than on what technologies do to humans. By identifying the complicated decision-making involved in the creation and appropriation of technological products and systems, critical constructivism is able to highlight the ways in which different decisions could have been made in the past, which in turn reveals opportunities for different decisions to be made in the present. Feenberg (2017b, 199) writes:

The constructivist argument holds that there are often technically viable alternative designs for systems with different social implications; the successful design is thus not exhaustively explained by purely technical considerations. Underdetermination means that the trajectory can be changed and that in turn frees normative decisions from technical determination. This has liberating political implications. There is no "one best way" but many context-dependent ways among which to choose. The trajectory of

the existing system does not necessarily determine the future. Public action can place society on a different trajectory in conformity with different values.

For example, Feenberg (2017b, 53) argues that car manufacturing is not merely the result of capitalist forces attempting to maximize profits and of technological forces attempting to maximize efficiency. Instead car manufacturing has evolved in accordance with the need to balance a range of stakeholder concerns, from profits and efficiency to health, safety, and the environment. Such struggles show, according to Feenberg (2017b, 83), that technological innovation has been *driven* by democracy, for which reason technology cannot be the *enemy* of democracy that so many believe it to be. Accordingly, if there is anything anti-democratic about technology, it is not the result of anything that is inherent to technology.

The political project for critical constructivism therefore is not about how to protect humanity from technology but rather about how to help more and more of humanity to become engaged in the decision-making processes through which technologies are designed and appropriated. According to Feenberg (1991), what is perceived as the anti-democratic and inhuman nature of technological progress is not the result of “technological autonomy” (Ellul 1980) or of the “bringing-forth” of “ancient technology” having been replaced by the “challenging-forth” of “modern technology” (Heidegger 1977). Instead Feenberg argues that it is precisely such deterministic beliefs about technology that have enabled technological progress to become anti-democratic and inhuman. By making attempts at bottom-up engagement with technologies seem hopeless, technological determinists have made it easier for a top-down control of technological innovation to proceed unimpeded. As Feenberg (2017b, 199–200) argues:

Case studies of technical controversy should acknowledge these normative issues and outcomes and recognize a form of *progressive closure* that contributes to social development. A notion of progress is essential to public interventions. No one would fight for change who did not believe it to be progressive.

In other words, Feenberg’s argument suggests that the dystopian and deterministic views of technology that have come to occupy both philosophy of technology and the popular imagination are a self-fulfilling prophecy.

3. Analyzing a Critical Constructivist Analysis

Opening up a space for belief in the possibility of progress is thus seen by Feenberg as necessary for the achievement of progress. This goal of critical constructivism leads Feenberg to take what can be seen as essentially a two-pronged approach in his analyses of technologies. First, he shows how critics of the technology in question have a one-sided, overly pessimistic view due to only looking at what has gone wrong. Second, he points out the progress that has been achieved and that could continue to be achieved in and through the technology in question.

One such technology that Feenberg returns to again and again is “the Internet” (Feenberg and Bakardjieva 2004; Feenberg 2012, 2016, 2017a, 2017b). In his latest book, *Technosystem: The Social Life of Reason* (2017b), the only “application” of critical constructivism that Feenberg provides is an examination of the internet. Feenberg is aware that it may seem “very naïve to believe in the democratic potential of the internet” (Feenberg 2016, 1), but one reason he returns to the internet again and again in his work is because he sees the internet as the realization of the democratic potential of technologies in general. For this reason I will likewise focus on Feenberg’s investigations of the internet in order to analyze critical constructivism.

Feenberg accuses critics such as Christian Fuchs, Jodi Dean, and Malcolm Gladwell of having taken too negative a view of the internet due to having reduced the entirety of the internet to one aspect, such as capitalist exploitation (Fuchs), the meaninglessness of Facebook posts (Dean), or treating online petitions as genuine political activism (Gladwell). Feenberg does not wish to deny the empirical realities that motivate such criticisms, but instead wants to show that there is more to the internet than these criticisms would suggest and that the anti-internet cynicism that these criticisms engender prevents us from appreciating both the complexities and the potentialities that the internet has to offer.

That the internet was designed to be a military tool and yet has become a tool for capitalist consumption, for social networking, and for political organizing is itself evidence of the ways in which a technology can be redefined and repurposed as more and more people engage with the technology. As Feenberg concludes, “Underestimating what has been gained in criticizing the cooptation of emancipatory advances results in political paralysis” (Feenberg 2016, 17). Thus, for Feenberg, to focus only on the immorality or inauthenticity of these uses of the internet is to lose sight of the democratic progress that had to have been achieved for these uses to even exist.

What must be realized here however is that this argument can be turned back against Feenberg. For if the “democratic potential of the internet” has resulted in the immorality and inauthenticity that Fuchs, Dean, and Gladwell describe, then why put such faith in the belief that increasing participation will result in increasing progress? In a footnote Feenberg suggests that he is not unaware of this concern, as he admits that “new public involvement is not an unmixed blessing” since “the public makes mistakes too,” but he argues, following Kant, that “only after the individuals have acquired citizenship are they in a position to engage the learning process that qualifies them to exercise it” (Feenberg 2017b, 214n49). The Kantian argument here is that people should not be denied the right to participate on the basis that they will misuse their newly acquired rights since the misuse is likely to be the result of their rights having been newly acquired (*ibid.*, 202–03).

In other words, the right to participate must be coupled with the right to make mistakes. But is the rampant abuse on the internet—abuse that arises not only from corporations and from governments but also from communities and from individuals—really best understood as the result of the fact that “the public makes mistakes too”?¹ While critical constructivism can help us to see that the internet is “a terrain of struggle rather than a definite ‘thing’ with a singular essence” (Feenberg 2016, 12), it does not appear capable of helping us to see why the “struggle” has resulted in the internet that we currently have.

Feenberg and Bakardjieva (2004) propose dividing the competing interests of internet users into two models: the “consumption model” of business interests and the “community model” of social interests. The purpose of this bifurcation is to show, on the one hand, that the internet is not best understood solely as the capitalist playground that critics like Fuchs make it out to be, and, on the other hand, that the co-existence of these competing interests highlights the democratic potential of the internet. Returning to this model in his most recent work, Feenberg (2017b, 100–01) writes:

The consumption model follows the logic of consumer society in objectifying human capacities in commodities. It privileges features that support entertainment, commercial transactions, and advertising while the community model relies on other features that support online group activity and public life. The community model supports new forms of sociability through which individuals communicate and appropriate alienated aspects of their lives. . . . At the ideological level, each model appeals to widely recognized values—the consumption model to market freedom and its role in fulfilling

human needs, the community model to freedom of expression and the role of community in public life and personal growth.

Describing the internet in this way leads to the conclusion—a conclusion that fits well with the critical constructivist vision of progress through democratic participation—that what is wrong with the internet can be overcome by the consumption model being forced to compete with the community model. But this description does not match the reality of the internet, a reality where cruelty exists both on the side of consumption and on the side of community.

Feenberg frequently accuses critics of the internet of taking too narrow and too negative a view of the internet. For example, Feenberg (2017a, 44–45) writes:

The Internet’s critics overlook the human significance of the technology. They focus on commercial exploitation, surveillance and the triviality of most of the communications but they fail to realize that without opening a channel for trivial speech, no serious speech gets through. The parasitic activities of business and government do not cancel out the value of free communication. Rather than comparing the Internet unfavorably with edited cultural products like newspapers, it would make more sense to compare it with the social interactions that take place on the street. The coexistence there of the good, the bad and the trivial is normal, not an offense to good taste or intellectual standards because we have no expectation of uniform quality.

This view of the internet again reinforces the idea that what is wrong with the internet exists primarily on the side of the consumption model, while the community model may give rise to “triviality” but must nevertheless be respected due to the “value of free communication.” Feenberg does not seem to appreciate that much of what people criticize about the internet is precisely the *nontrivial* communication that arises from the public having the ability to communicate freely. Harms arise on the internet not only from what is anti-democratic such as “the parasitic activities of business and government,” but also from out of the *demos* itself, such as in the form of trolling (Phillips 2015), doxing (Douglas 2016), shaming (Ronson 2016), and swatting (Fagone 2015).

The critical constructivist goal of recognizing the emancipatory potential of the internet has left Feenberg seemingly blind to the realization that what is being liberated on the internet may in fact be the worst, most *anti-democratic* impulses of the public. Feenberg (1995, 159) admits in a passing comment that “the sense of personal freedom and individualism” experienced on the internet may result

in “‘flaming’—the expression of uncensored emotions online,” but he does not follow up on this concern, noting only that this would be “viewed as a negative consequence of this feeling of liberation.” Similarly, Feenberg (2017a, 51) writes:

The supposed prevalence of anti-social behavior such as ‘flaming’ on the Internet is brought forward as evidence of its inability to support the levels of moral engagement we associate with the concept of community. These arguments are confounded by the testimony of participants in online community as well as by extensive research. For example, surveys conducted in several countries by Japanese researchers reveal that the ethical assumptions guiding Internet users resemble quite closely their everyday ethical assumptions (Nara and Iseda 2004). Not technology but character determines behavior online. And character is precisely what community requires, i.e. the ability to commit to a group of fellow human beings. The behaviors and symbols that sustain and support the imagined unity of community are routinely reproduced on the Internet. (Feenberg and Bakardjieva 2004)

Feenberg here conflates immoral behavior on the internet with “anti-social behavior,” taking for granted that “flaming” is contrary to “the levels of moral engagement we associate with the concept of community.” Yet, research on trolling (Phillips 2015; Gertz 2018b) shows that this behavior can be seen as not only social but as fueled by the conflict between the community model and the consumption model of the internet. In other words, trolling may in fact be the perfect example of the struggle that Feenberg identifies as integral to the internet’s democratic potential.

Internet trolls are known for their attempts to subvert the consumption model of the internet by repurposing social media networking tools as weapons. But Phillips (2015) discovered that internet trolls coordinated with each other, sharing jokes, strategies, and what could even be described as a code of conduct, and that trolls would even choose screen names that would help them find each other after social media moderators deleted their accounts. If, as Feenberg argues, “the ability to commit to a group of fellow human beings” is “precisely what community requires,” then trolling should not be seen as merely “anti-social behavior” but instead as a very specific form of social behavior (Gertz 2018b), as social behavior that has arisen through the “free communication” that is afforded by the community model of the internet and that is championed by Feenberg.

At the same time however it must be recognized that trolling—much like doxing, shaming, and swatting—represents a form of free communication that is an attack on free communication, a form of *demos*-driven behavior that is *anti-democratic*. Though trolling communities have arisen on the internet by bonding

over shared practices and interests (Phillips 2015; Gertz 2018b), trolling, doxing, shaming, and swatting are typically used to directly attack those who are seen as enemies. Furthermore, these abusive practices are used to indirectly attack enemies by making the internet so toxic of an environment that participating in free communication on the internet would not seem worth the risk to anyone who is not themselves an internet troll. This perhaps helps to explain why trolling has become so pervasive on the internet, a pervasiveness that became most evident during the 2016 U.S. presidential election as both Hillary Clinton (“Delete your account” (Spangler 2016)) and Donald Trump (“I love Wikileaks” [Blake 2018]) took turns trolling each other online, with Trump ultimately making trolling the centerpiece of his presidency (Cillizza 2018).

Feenberg’s exclusive focus on threats to the democratic potential of the internet coming from the consumption model of the internet therefore ignores the threats that are coming from within the community model itself. Feenberg (2017b, 98) asserts that “truly free, reciprocal, bottom-up communication has emancipatory potential and such communication does occur on the Internet.” Yet, as Phillips (2015) reveals, “emancipatory potential” is only half the story of the nature of “truly free” communication on the internet. As Phillips (2015, 133–34) writes:

Regardless of how unlikely the connection between trolling and free speech might appear, however, and regardless of what message they intend to send by embracing such a cherished American ideal, trolls’ more extreme actions call attention to the ugly side of free speech. . . . Just as it places assumptions about free speech in a new and perhaps uncomfortable light, trolling also reveals the destructive implications of freedom and liberty, which, when taken to their selfish extreme, can best be understood as “freedom for *me*,” “liberty for *me*,” with little to no concern about how these actions might infringe on others’ freedoms.

As the research of Phillips makes clear, trolls often justify their behavior by referencing their right to free speech, for which reason Feenberg’s uncritical advocacy for expanding free speech on the internet could counterproductively help to exacerbate trolling online. If critical constructivism is to serve as a political theory of technology it must be able to recognize the ways in which free communication on the internet can serve goals that are either emancipatory or repressive, or even a goal that is both emancipatory for *oneself* and yet repressive for *everyone else*.

4. From Critical Constructivism to Postphenomenology

From the preceding analysis it is clear that critical constructivism is able to help reveal the democratic potential of the Internet, but is unable to recognize or respond to the threats to democracy that can be unleashed by the realization of that very same potential. By focusing solely on governments and businesses as having interests that would conflict with the goal of freedom of communication online, Feenberg is unable to address the ways in which free communication can itself come into conflict with the goal of freedom of communication. What is missing from Feenberg's "application" of critical constructivism therefore is a theoretical account of how users experience the freedom afforded by the internet and of how users experience the world through the internet.² In other words, what is missing from critical constructivism is a theory of technological mediation.

Don Ihde, whose work is most often associated with the concept of technological mediation, is a figure who appears frequently in the work of Feenberg. Feenberg (2015, 230) has even remarked on the similarities between their philosophies of technology, noting that "the core argument I find most persuasive in Ihde's work is the notion that human beings have always already left the garden of Eden for a technically mediated world of some sort." The existence of a "technically mediated world of some sort" in Feenberg's work can be found, for example, when he (2002, 19) writes:

Technical arrangements institute a "world" in something like Heidegger's sense, a framework within which practices are generated and perceptions ordered. Different worlds, flowing from different technical arrangements, privilege some aspects of the human being and marginalize others. What it means to be human is thus decided in large part in the shape of our tools. To the extent that we are able to plan and control technical development through various public processes and private choices, we have some control over our own humanity.

Feenberg here clearly argues for an understanding of the relationship between humans and technologies that is close to Ihde's (1990) theory of "human-technology relations," wherein humans shape technologies and technologies shape humans. And yet, in his discussion of "flaming" on the internet, Feenberg seemingly rejects this understanding when he asserts that "not technology but character determines behavior online" (Feenberg 2017a, 51).

Feenberg is so concerned with rejecting both technological determinism and technological dystopianism that in his discussion of "flaming" he moves towards

the opposite extreme and espouses something closer to an instrumentalist view of technology. Like Ihde, Feenberg wants to reject instrumentalism by arguing instead for a non-neutral view of technologies. Yet, unlike Ihde, Feenberg is motivated by the normative concerns of critical theory rather than the descriptive concerns of phenomenology, and so Feenberg's argument for a non-neutral view of technologies is intended to justify the critical constructivist vision of achieving political progress through technological progress. Consequently, Feenberg responds to critics of the internet, as we have already seen, by suggesting that their disappointment with the internet leads them to take an overly negative view of the internet by treating the worst uses of the internet as representative of the internet as a whole. It should not surprise us therefore that Feenberg would downplay "flaming" on the internet by suggesting that such behavior is merely the result of a *few bad apples* in order to avoid the idea that the internet is a *bad technology*.

Of course it is precisely such a dichotomous view of the relationship between technology and responsibility—either "character determines behavior online" or the "technology" does—that the concept of technological mediation was intended to overcome. As Verbeek (2011) has made clear, to retain such a dichotomy is to ignore the reality that, if technologies shape how humans see the world and act in the world, then responsibility for technologically-mediated behavior must be understood as shared between humans and technologies. Feenberg's bad apples approach gives the false impression however that technological mediation only applies to good behavior—like the internet promoting democracy—but does not apply to bad behavior—like the internet promoting trolling.

What we find instead in Ihde's account of technological mediation is a much more nuanced description of the "ambivalent" relationship that can form between humans and technologies. Ihde (1990, 75–76) writes:

In extending bodily capacities, the technology also transforms them. In that sense, all technologies in use are non-neutral. They change the basic situation, however subtly, however minimally; but this is the other side of the desire. The desire is simultaneously a desire for a change in situation—to inhabit the earth, or even to go beyond the earth—while sometimes inconsistently and secretly wishing that this movement could be without the mediation of the technology. . . . In the wish there remains the contradiction: the user both wants and does not want the technology. The user wants what the technology gives but does not want the limits, the transformation that a technologically extended body implies. There is a fundamental ambivalence toward the very human creation of our own earthly tools.

According to Ihde, technologies transform human experience, but this transformation can be experienced as a “contradiction” insofar as we desire technologies because they can break down existing barriers for us but we are unwilling to face the fact that technologies replace old barriers with new barriers. In other words, technological mediation can present itself as offering a dream of limitlessness, a dream that we cling to in order to avoid the reality that technologies impose on us limits of their own.

This dynamic of embracing what technologies can do *for us* while trying to avoid confronting what technologies can do *to us* can help to explain how the free communication afforded by the internet could have turned the internet into a toxic rather than a democratic environment. If communication online is experienced as *free* because it is *freer* than the communication one experiences in face-to-face communication offline, then this freedom can be experienced as what Ihde (1990) describes as an “embodiment relation.” In embodiment relations, technologies shape the user’s experience of the world by focusing the user’s attention towards the enhancement of the user’s bodily abilities afforded by the technology while simultaneously focusing the user’s attention away from the role the technology plays in this enhancement.

For example, wearing a pair of glasses can make us more concerned with what we can see through the glasses than with what effect the glasses have on our perception of the world. Consequently we say “I see you” rather than “I see the glasses seeing you” as though the glasses are an extension of our eyes rather than an external object that shapes our vision, improving what we see in front of us while leaving blurry what is on the periphery. Similarly, the internet can make us more concerned with what we can say online than with what effect the internet can have on our behavior in the world. Consequently we say “I told you” rather than “I told a computer program to tell you” as though the internet is an extension of our mouths rather than an external system that shapes our speech, improving the speed and distance of our communication while changing how and what we communicate.

Social media environments, much like chatrooms and even CB radios, privilege communication that is idiomatic and that is attention-grabbing (Gertz 2018b). This privileging has become even more pronounced as social media platforms have introduced algorithmic curation that can show or hide posts based on factors such as what is popular or “trending,” which has helped to drive the “outrage culture” of the internet as outrageous posts are the most attention-getting posts (ibid.). Likewise the growth of internet-specific communication features such as

emojis, GIFs, screenshots, and memes has further contributed to the creation of a culture of communication on the internet that has helped to make trolling more and more mainstream as it has become easier and easier to mock and humiliate others online (Phillips 2015).

Thus while Feenberg (2017a, 44–45) is right to argue that the internet should not be likened to a newspaper, he is wrong to argue that it should instead be likened to a sidewalk, as though the internet is merely a public space like any other. The internet is not just a medium for communication as it also mediates what we think it means to communicate. The more time we spend communicating on the internet the more accustomed we become to adopting the communicative culture of the internet without necessarily being aware that we are doing so. It is for this reason that critical constructivism requires a more robust theory of technological mediation in order to analyze not only the democratic *potential* of the internet but also the democratic *actuality* of the internet. In other words, critical constructivism needs a critical postphenomenology.

5. Conclusion: Towards a Critical Postphenomenology

As we have seen, postphenomenology can contribute to the political project of critical constructivism by providing the analyses of technological mediation that are currently absent from critical constructivism. However, it must be recognized that postphenomenology has not yet been able to take a “political turn” in its analyses because it is not yet able to account for the role of technologies in political life. Ihde (1990) described the role of technologies in the practical life of individuals. Verbeek (2011) described the role of technologies in the moral life of individuals. But political life is not simply the sum of individual lives, and so analyses of political life must be seen as different in *kind* rather than in *degree* from analyses of practical or moral life.

If we turn to the political philosophy of Hannah Arendt we can see why it is necessary for postphenomenology to become *critical*, not only by investigating the political significance of human-technology relations, but also by recognizing the political significance of its own individualistic orientation. In her “Introduction into Politics,” Arendt (2005) criticizes psychology for responding to human suffering by focusing on the experiences of individual sufferers rather than by focusing on the political systems in which sufferers live. Arendt (2005, 201) writes:

The modern growth of worldlessness, the withering away of everything *between* us, can also be described as the spread of the desert. That we live

and move in a desert-world was first recognized by Nietzsche, and it was also Nietzsche who made the first decisive mistake in diagnosing it. Like almost all who came after him, he believed that the desert is in ourselves, thereby revealing himself not only as one of the earliest conscious inhabitants of the desert but also, by the same token, as the victim of its most terrible illusion. Modern psychology is desert psychology: when we lose the faculty to judge—to suffer and condemn—we begin to think that there is something wrong with us if we cannot live under the conditions of desert life. Insofar as psychology tries to “help” us, it helps us “adjust” to these conditions, taking away our only hope, namely that we, who are not of the desert though we live in it, are able to transform it into a human world.

It should come as no surprise to feel alone in a world that divides humans from each other, which is precisely what Arendt believes is the result of living in a bureaucratic political system that trains individuals to focus on fulfilling their personal desires and to leave politics to bureaucrats. For this reason Arendt warns that responding to experiences of alienation and isolation by looking “in ourselves” is to ignore the individualistic ideology that is the source of such alienation and isolation. Worse yet, Arendt argues that psychology does not merely *overlook* individualism but rather that it actively *perpetuates* it by motivating people to think individualistically rather than politically, to think of suffering as a personal inability to adapt to the world rather than as the result of living in a political system not suited for human habitation. The goal of such “desert psychology” of trying to help people to overcome their suffering through changing themselves is therefore seen by Arendt as beneficial, not to individuals, but to individualism, since it prevents us from recognizing the need to instead change society.

From this Arendtian perspective, the decision to focus on the experience of individual users when analyzing human-technology relations cannot be seen as merely a methodological decision (Rosenberger and Verbeek 2015), but must instead be seen as also a *political* decision. We can imagine that, similar to her criticisms of psychology, Arendt would likewise criticize postphenomenology for reinforcing the belief that individuals should be concerned with what is personal rather than with what is political. Similarly, we can imagine Arendt criticizing Feenberg for his aforementioned treatment of “flaming” by focusing on individual “character” rather than on the political systems in which such character was formed.

Hence just as Feenberg’s critical constructivism can benefit from Ihde’s theory of technological mediation, we can see that both critical constructivism

and postphenomenology would benefit from what could be described as Arendt's theory of *political mediation*. By bringing together the concepts of technological mediation and of political mediation, postphenomenology could take a "political turn" towards critical constructivism and become critical itself. The challenge here presented by Arendt is for postphenomenology to be rethought rather than merely expanded. What is needed is for postphenomenology to develop a new methodology, one that would be able to investigate the political significance of human-technology relations, and to do so in a way that would not risk privileging the first-person perspective of individuals. Whether such a methodological change can be achieved remains to be seen, but it is necessary for critical constructivists and postphenomenologists to work together towards such a goal in order to confront the danger of what Arendt might have described as *desert technology*.

Notes

1. Indeed here it would be useful to think of Immanuel Kant's (1790) own arguments concerning the "unsocial sociability" of human beings due to what Kant sees as the inherently human conflict between wanting to be social and wanting to be independent. My thanks to the anonymous reviewer who pointed out this connection.

2. For a thorough analysis of the role of experience in Feenberg's work, see Bendor (2013). As Roy Bendor makes clear, Feenberg's effort to continue Marcuse's synthesis of Marxist political analysis with Heideggerian phenomenological analysis creates tensions concerning the conceptualization of experience in critical constructivism. My thanks to the anonymous reviewer who pointed out this connection.

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