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Symposium: Andrew Feenberg's *Questioning Technology**

From the Question Concerning Technology to the Quest for a Democratic Technology: Heidegger, Marcuse, Feenberg

Iain Thomson
University of New Mexico, Albuquerque

Andrew Feenberg's most recent contribution to the critical theory of technology, *Questioning Technology*, is best understood as a synthesis and extension of the critiques of technology developed by Heidegger and Marcuse. By thus situating Feenberg's endeavor to articulate and preserve a meaningful sense of agency in our increasingly technologized lifeworld, I show that some of the deepest tensions in Heidegger and Marcuse's relation re-emerge within Feenberg's own critical theory. Most significant here is the fact that Feenberg, following Marcuse, exaggerates Heidegger's 'fatalism' about technology. I contend that this mistake stems from Feenberg's false ascription of a technological 'essentialism' to Heidegger. Correcting this and several related problems, I reconstruct Feenberg's 'radical democratic' call for a counter-hegemonic democratization of technological design, arguing that although this timely and important project takes its inspiration from Marcuse, in the end Feenberg remains closer to Heidegger than his Marcuseanism allows him to acknowledge.

I. Introduction

Richard Wolin has remarked that '[t]he full story of Marcuse's relation to Heidegger has yet to be written'.[1] Indeed, there are at least two stories to be told about the Marcuse–Heidegger relationship: the story of its historical past and the story of its philosophical future. Let us hope that intellectual historians like Wolin will continue to bring the past of this important relation to light; in the meantime, Andrew Feenberg has already begun writing the philosophical story of its future. The goal of his *Questioning Technology* is to

* Andrew Feenberg, *Questioning Technology* (London and New York: Routledge, 1999), xvii + 243 pp., pb. $24.95. Unprefixed page references are to this work. Earlier versions of this paper were presented at the Society for Philosophy of Technology conference in San Jose, CA, on July 16, 1999 and at the Eastern Division Meeting of the American Philosophical Association in Boston, 28 December 1999. I thank Bert Dreyfus, Jerry Doppelt, Andy Feenberg, Wayne Martin, David Stump, and Richard Wolin for helpful comments and criticisms.

articulate a critical theory capable of responding to '[t]he fundamental problem of democracy today', namely, the question of how to 'ensure the survival of agency in this increasingly technological universe' (p. 101). To meet this challenge, Feenberg synthesizes and extends the critiques of technology developed by Heidegger and post-Heideggerian thinkers like Marcuse and Foucault. My approach will seek to situate Feenberg's project within this historical perspective.

II. The History Behind Feenberg's Heidegger–Marcuse Dialectic

Marcuse studied with Heidegger from 1928 to 1932, and Feenberg was a Marcuse student during the late 1960s.[2] This, of course, makes Feenberg one of Heidegger's intellectual grandchildren. But this is a genealogy fraught with political and philosophical tensions, tensions which occasionally make themselves felt in Feenberg's interpretations and which point back to the fact that Marcuse himself broke with Heidegger bitterly – and permanently – in 1948. To Marcuse, Heidegger's strong early support of National Socialism represented a fundamental betrayal of Heidegger's own 'existential' philosophy, and thus an abandonment of 'the greatest intellectual heritage of German history', and he said so at the time.[3] In 1933 and 1934, while Heidegger was making political speeches on Hitler's behalf, Marcuse was fleeing Hitler's rise to power, first from Frankfurt to Geneva in 1933, then emigrating to New York in 1934, where he served as the philosophical specialist for the now exiled Frankfurt School. During this period, Marcuse wrote *Reason and Revolution*, defending Hegel's notion of the state – as 'a social order built on the rational autonomy of the individual' – against the 'pseudo-democratic ideology' characteristic of Fascism, which pays lip service to the direct rule of the 'people' [*Volk*], while in fact 'the ruling groups control the rest of the population directly, without the mediation of . . . the state'. Hitler had abolished all such democratic mediation, so Marcuse concludes *Reason and Revolution* by quoting Carl Schmitt's proclamation that on January 30th, 1933, 'the day of Hitler's ascent to power, "Hegel, so to speak, died".'[4]

Marcuse's post-Heideggerian return to Hegel was of course also a return to Marx; he was elaborating the major philosophical sources of Frankfurt School critical theory. But around this time Max Horkheimer, who directed the Institute for Social Research and controlled its finances, began working closely with another philosopher, Theodore Adorno. Adorno, whose hatred for Heidegger apparently spilled over onto Marcuse, wrote to Horkheimer in 1935 to remind him of the 'illusions' Marcuse had so recently had 'of Herr Heidegger, whom he thanked all-too-heartily in the foreword to his (1932) Hegel book'. Adorno went so far as to accuse Marcuse of being 'hindered

[only] by Judaism from being a fascist'![5] Whether or not Adorno's vicious intrigue succeeded, Marcuse soon found Institute funds in too short a supply to continue supporting him and his family. Thus it was that Marcuse, the philosopher now best remembered as the intellectual guru of the New Left (and thus the mentor of New Left philosophers like Feenberg, Angela Davis, and Douglas Kellner), found himself working for various American Intelligence agencies from 1942 to 1951.[6]

This is less strange than it sounds. Marcuse actually spent the final years of the Second World War doing 'de-Nazification studies' for the Office of Strategic Services. Here, with two other prominent members of the Frankfurt School (the legal scholar and economist Franz Neumann and the political theorist Otto Kirchheimer), Marcuse engaged in an intensive interdisciplinary effort to uncover and 'eliminate the root causes that had produced fascism'. Looking back in 1954, however, Marcuse would conclude that: 'The defeat of Fascism and National Socialism has not arrested the trend toward totalitarianism.'[7] The fundamental political threat to democracy had not been rooted out; it had merely changed forms and continued to spread after the war. Marcuse called this new, post-Fascist form of totalitarianism 'technocracy'. A technocracy is a political state in which 'technical considerations of imperialistic efficiency and rationality supersede the traditional standards of profitability and general welfare'.[8] For the rest of Marcuse's long and fruitful career, his overriding question became: How can the increasingly global technocracy be subverted, that is, *democratized*? This is precisely the quest behind *Questioning Technology*, the project that Feenberg takes up – with Heidegger's help.

Of course, Marcuse himself would not have looked to Heidegger for help. Marcuse was deeply dissatisfied by Heidegger's private admission of a 'political error'; he expected Heidegger to publicly announce his political change of 'allegiance' (as Nazi opportunists like Schmitt and Alfred Bäumler had done right after the war, a disingenuous act that Heidegger, the thinker of authenticity, found simply 'loathsome').[9] Marcuse warned Heidegger that his refusal to make such an apology would be interpreted as a continuing 'complicity' with Nazism, but Heidegger obstinately refused.[10] Thus a controversial stalemate was reached, and Marcuse and Heidegger would remain personally and professionally estranged for the rest of their lives. Unfortunately, as Feenberg shows, this mutual estrangement led them to neglect the important insights contained in each other's work on technology. Feenberg brings out remarkable similarities between Marcuse's critique of *technocracy*, the technologically mediated production and maintenance of a one-dimensional society, and Heidegger's ontological critique of *enframing*, the technological understanding of being which turns everything it touches into a mere resource.[11] Indeed, Feenberg stages a forceful post-Marcusean

return to Heidegger, and thus presents *in absentia* much of Marcuse and Heidegger's missing interlocution on the essence of modern technology.

True to the philosophical spirit of Marcuse, Feenberg's critique of Heidegger is thoroughly dialectical. Its negative or critical moment seeks to isolate Heidegger's deepest insights into technology, preserving these insights from distortions Feenberg blames on Heidegger's 'techno-phobic' (p. 151) and 'essentialist' (p. 3) understanding of technology. In the positive moment of his critique, Feenberg appropriates several of Heidegger's insights, incorporating these in a powerful new way into his own critical theory of technology. In so doing, he demonstrates the continuing importance of the Heideggerian critique of technology while going beyond Heidegger – and Marcuse – in significant respects.

III. Feenberg's Marcusean Critique of Heidegger

Feenberg argues that the four major types of theories of technology (determinism, instrumentalism, substantivism, and critical theory) can be differentiated by the answers they each give to two basic questions (p. 9). For Feenberg, Heidegger's first answer represents an unsurpassable historical advance beyond determinism and instrumentalism, but Heidegger's second response pinpoints where his 'substantivist' view goes wrong and needs to be superseded by Feenberg's own critical theory. The first question is: Is technology neutral or is it value-laden? As Feenberg argues, Heidegger undermines once and for all the belief that technology is neutral by showing that the technological doer comes to be historically 'transformed by its acts' (p. 206). Heidegger's understanding of technology thus overturns both traditional Marxist *determinism* (according to which technological advance will inevitably usher in the golden age of communism), and liberal *instrumentalism* (which understands technology merely as an instrument of progress, a set of tools which can be used transparently to achieve independently chosen ends). As Feenberg puts it, Heidegger shows that 'technology is not merely the servant of some predefined social purpose; it is an environment within which a way of life is elaborated' (p. 127). And thus, 'for good or ill, the human manner of inhabiting the environment can only be [an] ethical' question.[12]

Heidegger's answer to this ethical *question concerning technology* argues that technology has an ontological impact which is far from neutral. As technology colonizes the lifeworld, everything 'sucked up' into its purview, including the modern subject, is reduced to the ontological status of a resource to be optimized. Within our current technological 'constellation' of intelligibility, '[o]nly what is calculable in advance counts as being'.[13] This technological understanding of being produces a 'calculative thinking' which

quantifies all qualitative relations, reducing all entities to bivalent, programmable 'information', digitized data, which increasingly enters into what Baudrillard calls 'a state of pure circulation'.[14] As this historical transformation of beings into resources becomes more pervasive, it increasingly eludes our critical gaze; indeed, we come to treat even ourselves in the terms underlying our technological refashioning of the world: no longer as conscious subjects in an objective world but merely as resources to be optimized, ordered, and enhanced with maximal efficiency (whether cosmetically, psychopharmacologically, genetically, or cybernetically).[15] For Heidegger, the 'greatest danger' of our spreading technological understanding of being is the possibility that we will lose the capacity to understand ourselves in any other way.

Feenberg seems to agree with Heidegger's basic diagnosis of technology's ontological impact, but thinks that Heidegger overstates the danger because he ignores resources internal to technological society capable of combating this ontological devastation. This brings us to the second question Feenberg uses to categorize the field of technological theories, the question which differentiates Feenberg from Heidegger: Can the historical impact of technology be humanly controlled, or does it operate according to its own autonomous logic? Is humanity capable of guiding the historical direction in which technology is taking us? No, Heidegger answers; what is most essential about technology – namely, the way in which it alters how reality shows up for us – cannot be controlled.[16] As Heidegger writes: 'No single man, no group of men, no commission of prominent statesmen, scientists, and technicians, no conference of leaders of commerce and industry, can brake or direct the progress of history in the atomic age.'[17] This answer reveals what Feenberg most fundamentally objects to in Heidegger's approach: Heidegger attributes an autonomous logic to technology. This fatalistic 'substantivism' stems ultimately from Heidegger's essentialism, Feenberg contends (p. 17), and it leads Heidegger to advocate 'liberation from [the technological order] rather than [its] reform' (p. 198).

But Feenberg's reading is never so hermeneutically violent as when he accuses Heidegger of being a technological 'essentialist'. Heidegger's paradoxical-sounding claim that 'the essence of technology is nothing technological' does not mean that technology leaves no room for 'reflexivity' (p. 207). Heidegger is really expressing the paradox of the measure; height is not high, treeness is not itself a tree, and the essence of technology is nothing technological. To understand the 'essence of technology', Heidegger says, we cannot think of 'essence' the way we have been doing since Plato (as what '*permanently* endures'), for that makes it seem as if 'by the [essence of] technology we mean some mythological abstraction'. We need, rather, to think of 'essence' as a verb, as the way in which things 'essence' [*west*] or 'remain in play' [*im Spiel bleibt*].[18] 'The essence of technology' thus means

the way in which intelligibility *happens* for us these days, that is, as 'enframing' (the historical 'mode of revealing' in which things show up only as resources to be optimized). Heidegger's historical understanding of the 'essence' of technology may actually put his position closer to the 'constructivist' than the 'essentialist' camp, and it becomes clear that Feenberg shares a similar view when he advocates 'a historical concept of essence' in the book's concluding chapter (p. 201).

What Feenberg really objects to, it seems, is Heidegger's claim that the appropriate response to technology is best characterized by the comportment toward phenomena Heidegger calls *Gelassenheit*, that is, releasement, equanimity, composure, or 'letting-be' (p. 198) – not 'resignation and passivity', as Feenberg rather polemically translates the term at one point (p. 184). But Feenberg gives a more sympathetic treatment of the notion of *Gelassenheit* later, when he writes: 'Heidegger's undeniable insight is that every making must also include a letting-be, an *active* connection to the meanings that emerge with the thing and which we cannot "make" but only release through our productive activity' (p. 198, my emphasis). If the 'criteria for constructive reform' (p. 189) Feenberg seeks are to be found anywhere in Heidegger's view, it is here. In fact, *Gelassenheit* is one of the main criteria that the Amish use when deciding for or against the integration of a new technological device into their community. To some this example may seem its own refutation, but the critical theorist of technology can learn much from the Amish, who are not 'knee-jerk technophobes', but rather 'very adaptive techno-selectives who devise remarkable technologies that fit within their self-imposed limits'. The Amish may actually have achieved Heidegger's ideal of a 'free relation to technology', according to which we should 'affirm the unavoidable use of technical devices, and yet also deny them the right to dominate us, and so to warp, confuse, and lay waste to our nature'. Heidegger is not a Luddite, but rather advocates a *non-addicted* 'proper use' of technical devices in which we keep ourselves 'so free of them that we may *let go* of them at any time'.[19] He says we should 'let technical devices enter our daily life, and at the same time leave them outside'; the Amish take this advice quite literally when they leave their cellular phones in the outhouse overnight so that phone calls will not interrupt the face-to-face communal relations they cherish. The Amish do not reject new devices like the cell phone out of hand, but live reflexively with them, sometimes for years, before deciding 'what will build solidarity and what will pull them apart', what can be adapted to fit the needs and values of their community (like high-tech electric barbecues) and what cannot (like cars), and in such adaptation they can be quite creative.[20]

But for Feenberg, Heidegger's faith in *Gelassenheit* is too 'nostalgic' (p. 199) and passive; Heidegger's 'fatalism' gives over too much human autonomy to the technological order. In fact, Feenberg's fundamental

objection appropriates Marcuse's most powerful *political* criticism of Heidegger. As Marcuse put it, Heidegger succumbed to a 'hopeless heteronomism', that is, he lost faith in the Enlightenment's understanding of freedom as the capacity for substantive rational self-determination, the ability to direct the *ends* as well as the means of human life. Feenberg expresses this Marcusean criticism in a Marxist register: Heidegger is a 'technological fetishist' (p. viii). In the Marxist vocabulary, fetishism occurs when a 'social relation between men' assumes 'the fantastic form of a relation between things'.[21] For a Marxist (and let us not forget that critical theory is post-Marxian Marxism), to *fetishize* something is to detach it from the human labor that produced it but to continue nevertheless to project human meanings upon it, mistaking these projections for an independent reality. The fetishist's anthropomorphic projection endows a humanly created thing with the magical appearance of possessing a *telos* independent of human ends. Heidegger's technological fetishism is visible in the fact that, in his view (as Feenberg reconstructs it), 'technology rigidifies into destiny' (p. 14). But just as Feenberg downplays the active element in *Gelassenheit*, so here he overlooks the fact that for Heidegger enframing *is* our 'destiny', but it is not necessarily our 'fate'. As Dreyfus puts it, 'although our understanding of things and ourselves as resources to be ordered, enhanced, and used efficiently has been building up since Plato and dominates our practices, we are not stuck with it. It is not the way things have to be, but nothing more or less than our current cultural clearing'. In fact, the critical force of Heidegger's 'history of being' comes from his hope for a new historical beginning in which we would no longer treat everything as resources to be optimized.[22]

Feenberg argues, however, that Heidegger succumbs to the 'deterministic illusion' because he fails to notice the 'specific technical choices' which are in fact always involved in processes like 'the deskilling of work, the debasement of mass culture, and the bureaucratization of society' (p. 11). If Heidegger 'allows no room for a different technological future' (p. 16), a future which would avoid 'the gloomy Heideggerian prediction of technocultural disaster' (p. 17), it is because he overlooks the specific choices that always go into the process of 'technological design', and thus cannot envision the possibility that technologization could come to serve democratization. Again, I do not think Feenberg is right about Heidegger's supposed fatalism. This objection ignores Heidegger's hope for an 'other beginning' to Western history (this is not surprising, since for Feenberg the political direction in which this hope led Heidegger disqualifies the hope itself). Second, it rests on Feenberg's polemical characterization of *Gelassenheit* as 'Heidegger's outright rejection of agency' (p. 105). But, as Feenberg recognizes subsequently, Heidegger's more balanced insistence on ontological receptivity is in fact better understood as Heidegger's later

'corrective to his overemphasis on the role of Dasein in disclosure' in his early work (p. 195). For Heidegger it is crucial that we recognize our ontological receptivity if we are to get beyond our 'willful' technological ontology and envision an alternative future.[23] Still, Feenberg's conclusion – that Heidegger's own suggestions about this alternative future leave no room for a democratization of technology – is probably right for another reason, namely, Heidegger's excessively dim view of democracy.

At any rate, Feenberg's critique of Heidegger becomes the springboard for his own alternative, which seeks to expand democratic control over the technological design process. Here Feenberg again draws his inspiration from Marcuse. Unlike Heidegger, Marcuse learned from Hitler's rise to power about the importance of maintaining strong democratic institutions capable of mediating the will of the people and ensuring that the national voice is as inclusive as possible. Still, Marcuse was deeply concerned that the technological colonization of these democratic institutions discouraged rational autonomy. As Marcuse looked around himself in 1941, he saw that '[i]ndividualistic rationality has developed into efficient compliance with the pre-given continuum of means and ends'. Indeed, one revealing difference between Heidegger and Marcuse can be seen in Heidegger's interpretation of a massive highway interchange on the autobahn as a 'thing' capable of putting us in touch with the meanings of the world it embodies.[24] *Pace* Feenberg, here Heidegger recognizes that: 'Devices are things too' (p. 196), that is, he acknowledges that it is possible to attain a 'reflexive relation' to technological devices (p. 207). Heidegger thus helps raise the question concerning the world of meanings opened and transformed by technological phenomena such as the 'information superhighway', the internet.[25] Unlike Heidegger, however, Marcuse thought that: 'In manipulating the machine, man learns that obedience to the directions is the only way to get the desired results. . . . There is no room for autonomy.' I think this shows that in fact Heidegger thought further in the direction of Feenberg's project than did Marcuse, even though this project is inspired by Marcuse's notion of a technological 'democratization of functions' (the only development Marcuse could point to *within* Western democracies that seemed capable of reversing our slide toward a 'totally-administered society').[26]

IV. Feenberg's Alternative

Feenberg uses the work of Bruno Latour to uncover the way in which substantive political choices are embedded into technology during the design process. Think for example of the moral content locked into the 'technical code' of the 'speed-bump': rather than appealing to our rational autonomy through the imposition of speed-limits, the technical device simply decides

for us and forces us to comply.[27] As Feenberg writes: 'Design comes to reflect a heritage of . . . choices. . . . [I]n a very real sense there is a technical historicity; technology is the bearer of a tradition that favors specific interests and specific ideas about the good life' (p. 139). In short, technological 'design mirrors back the social order' (p. 87). Thus, against Heidegger's supposed technological essentialism, Feenberg argues that we need to recognize the historical 'malleability of technology' (p. 193), the possibility that technology could come to embody more democratic values. As an example of such technical historicity, Feenberg describes the struggle between IBM and Macintosh over text versus graphics user interfaces. Early on, the text-based interface nicely represented the values of computer users, who were mostly programmers. But as the democratization of computers spread computer use beyond programmers, the graphics interface came to better represent the values of the broader community of users.[28]

Why is it then that when we look at today's computers we see no sign of this struggle, which only recently ended? Feenberg's answer to this question explains why he thinks Heidegger missed what he missed. When the design process is complete, the value-laden choices that went into it are 'black-boxed', sealed into 'the technical code' (p. 88). This hard-wiring of specific cultural values into our technical devices obscures the fact that these values were *chosen*, and this reinforces a fatalistic attitude toward technology. Such an analysis leads Feenberg to suggest that Heidegger falls victim to the 'deterministic illusion' technological 'closure' produces (p. 87) because he 'doesn't view modern technology from within' (p. 197). It is certainly true that Heidegger did not have much internal experience with technology (he did not own a television and wrote his more than one hundred book-length manuscripts all by hand; he would not even type, let alone 'word-process', and it is not hard to imagine what he would have thought of the voice-recognition software Feenberg himself uses).[29] This becomes a decisive point for Feenberg, who concludes that Heidegger has unknowingly adopted the top-down 'strategic standpoint of the systems manager' rather than the bottom-up 'tactical standpoint of the human beings' enrolled within the technological network (p. 197).

Thus Feenberg responds to Heidegger with Foucault, supplementing the view from above with the 'view from below', adding the perspective of the many 'subjugated knowledges that arise in opposition to a dominating rationality' (p. 8). Every program has its 'anti-program' (p. 119), Feenberg shows, because the dominating rational order only comes into existence in opposition to a subjugated group.[30] The hope for a democratization of technology is thus placed with such subjugated groups who, Feenberg convincingly argues, could increasingly come to intervene in the design process. Of course, to do so they must overcome the technocratic inertia produced by the vested interests embodied in the technical code (which, like

Bentham's Panopticon, eliminates the need for someone actually to occupy the dominant subject position). Can Feenberg tell us how we are to do this? He should be able to, since he is so critical of the fact that Heidegger 'offers no criteria for constructive reform' (p. 189). In fact, there is a tension in Feenberg's positive view which reflects the difference between the Marcusean and Heideggerian positions he has synthesized. He vacillates between an optimistic, Marcusean, May '68, 'Progress will be what we want it to be' view which exalts the human capacity to control our future through strategic interventions in the design process (p. 22), and a more pessimistic Heideggerian view which suggests that while we cannot directly *control* the historical direction in which technology is taking us, we can nevertheless impact the future in small ways by learning to recognize, encourage, and support technological democratizations when they occur.

But in the end, Feenberg's optimism wins out, and takes him beyond the alternatives envisioned by Marcuse and Heidegger. For Feenberg holds that '[w]hile the technocratic tendency of modern societies is no illusion, it is nowhere near as total as its adversaries once feared' (p. 104). The Birmingham School has taught him that the 'power structure of advanced societies' is 'a contestable "hegemony" rather than a "total administration"' (p. 106). In so far as the technocracy is not totalizing (as both Marcuse and Heidegger thought it would be), resistance to it need not take the Utopian form of trying to transform the entire system at once. So Feenberg replaces Heidegger's *epochal* view of revolutionary historical change with a progressivist, evolutionary model. Clearly, Feenberg does not like Heidegger's idea that we must wait for 'another God', that is, a radically transformative cultural event which would successfully realign our values in one fell swoop.[31] Yet here I can't help wondering, isn't 'May '68' the name for an event in which such a god seemed for a time to arrive? Feenberg's own project is certainly deeply motivated by the experiences of this event and the historical possibilities it revealed.

Feenberg nevertheless claims to be content to advocate an activism which is 'far more modest in its ambitions' (p. 104). He does not follow Marcuse's emphasis on possible resistances to technocracy which come from '"without" (art, philosophical critique, the instincts, the Third World)' (p. 107); rather, he advocates a progressive reform which taps into the 'radical political resources immanent to technologically advanced societies' (p. 108). Feenberg's goal is what he calls 'deep democratization', that is, a short-circuiting of the administrative 'suppression' of resistances which would 'permanently open the strategic interiority to the flow of subordinates' initiatives' (p. 114). But Feenberg does not rid himself of all revolutionary ambitions; as he calls for the establishment of this permanent democratic voice in the design process, he situates his project within the broader movement known as *radical democracy*.[32] Feenberg's hope is that the proliferation of situated micro-

struggles will eventually lead to a 'convergence' in which AIDS patients join together with environmentalists, Minitel hackers, progressive medical researchers, and the like, in order to form a 'counter-hegemony' capable of permanently democratizing technological design and so gaining some control over the historical impact of technology.[33] But if the goal is not simply democratic control for the sake of control, if, rather, this endeavor is 'prefigurative', that is, if its goal is 'to open up a possible future' other than enframing or technocracy (p. 108), then in the end Feenberg's powerful and important project may remain closer to Heidegger than his Marcuseanism allows him to acknowledge.[34]

NOTES

1 Richard Wolin (ed.), *The Heidegger Controversy* (New York: Colombia University Press, 1991), p. 152.
2 See Douglas Kellner, *Herbert Marcuse and the Crisis of Marxism* (London: Macmillan, 1984), pp. 480–97; and Rolf Wiggershaus, *The Frankfurt School: Its History, Theories, and Political Significance*, trans. M. Robertson (Cambridge, MA: MIT Press, 1995), pp. 95–104.
3 Herbert Marcuse, 'The Struggle Against Liberalism in the Totalitarian View of the State' (1934), *Negations: Essays in Critical Theory*, trans. J. J. Shapiro (London: Free Association Books, 1988), p. 41.
4 Marcuse, *Reason and Revolution: Hegel and the Rise of Social Theory*, 2nd ed. (New York: Humanities Press, 1954), p. 170; ibid., p. 180; Franz Neumann, *Behemoth: The Structure and Practice of National Socialism, 1933–1944* (New York: Oxford University Press, 1942 and 1944), p. 470 (Marcuse clearly shared Neumann's view; see Kellner, 'Technology, War, and Fascism: Marcuse in the 1940s', in Herbert Marcuse, *Technology, War, Fascism*, Kellner [ed.], [London: Routledge, 1998], p. 8); Marcuse, *Reason and Revolution*, p. 419 (Schmitt, of course, was celebrating rather than bemoaning this fact; see Marcuse, 'The Struggle Against Liberalism in the Totalitarian View of the State', p. 275, note 79).
5 Adorno's May 13, 1935 letter to Horkheimer is quoted by Kellner in 'Technology, War, and Fascism', p. 16 note 22.
6 Kellner, 'Technology, War, and Fascism', op. cit., pp. 15–38; see also Wiggershaus, *The Frankfurt School*, op. cit., pp. 292–302.
7 Kellner, 'Technology, War, and Fascism', ibid., p. 21; Marcuse, *Reason and Revolution*, op. cit., p. 433.
8 Marcuse, 'Some Social Implications of Modern Technology' (1941), in Marcuse, *Technology, War, Fascism*, op. cit., p. 41. Cf. Feenberg (p. 4).
9 Heidegger, January 20, 1948 letter to Marcuse (in Wolin [ed. and trans.], *The Heidegger Controversy*, p. 162); ibid., p. 163. Marcuse indiscriminately associated Heidegger with Schmitt and Bäumler in 1934's 'The Struggle Against Liberalism in the Totalitarian View of the State', op. cit. (see pp. 31–42).
10 Marcuse, May 12, 1948 letter to Heidegger (in Wolin [ed.], *The Heidegger Controversy*, ibid., p. 164; I am reading Marcuse's self-reference as a displaced warning to his old mentor).
11 The irony of their estrangement is compounded by the fact that Heidegger understood his critique of technology *as* his philosophical repudiation of Nazism; see Hubert L. Dreyfus, 'Heidegger on the Connection Between Nihilism, Art, Technology, and Politics', in C. Guignon (ed.), *The Cambridge Companion to Heidegger* (Cambridge: Cambridge University Press, 1993).
12 Augustin Berque, *Être Humains sur la Terre* (Paris: Gallimard, 1996), p. 81; translated and quoted by Feenberg (p. 165).

13 Heidegger, *The Question Concerning Technology*, trans. W. Lovitt (New York: Harper & Row, 1977), p. 33; Martin Heidegger, 'Traditional Language and Technological Language', trans. W. Gregory, *Journal of Philosophical Research* XXIII (1998), p. 136.
14 Heidegger, *Discourse on Thinking*, trans. J. Anderson and E. Freund (New York: Harper & Row, 1966), p. 46; Heidegger, 'Traditional Language and Technological Language', ibid., p. 139; Jean Baudrillard, *The Transparency of Evil*, trans. J. Benedict (London: Verso, 1993), p. 4. But cf. Feenberg (p. 204); and Albert Borgmann, *Holding On to Reality* (Chicago: University of Chicago Press, 1999), pp. 218–21.
15 Heidegger, *The Question Concerning Technology*, op. cit., p. 17.
16 'Humanity does not have control over unconcealment itself' (Heidegger, *The Question Concerning Technology*, ibid., p. 18). Indeed, the very attempt to *control* technology – 'the will to mastery which becomes all the more urgent the more technology threatens to slip from human control' (ibid., p. 5) – is for Heidegger part of the problem; willful ontic attempts to control or manage technology risk reinforcing the Nietzschean ontotheology of eternally recurring will-to-power ultimately responsible for our technological epoch of 'the atomic age'.
17 Martin Heidegger, *Discourse on Thinking*, op. cit., p. 52.
18 Heidegger, *The Question Concerning Technology*, p. 4; ibid., pp. 30–31; ibid., p. 30.
19 Howard Rheingold, 'Look Who's Talking', *Wired* (Jan. 1999), p. 161; ibid., p. 131; Heidegger, *Discourse on Thinking*, p. 54; ibid. (my emphasis). Here we have at least one of the Heideggerian 'criteria' Feenberg seeks: to relate comportmentally to technological things with *Gelassenheit* means, minimally, to be able to *let them go*, to be able to live without the television, cell phone, pager, fax machine, internet hook-up, etc. Of course, counter-examples like the pace-maker and hearing-aid suggest that Heidegger's criterion needs further refinement.
20 Donald Kraybill, *The Riddle of Amish Culture* (quoted by Rheingold, 'Look Who's Talking', op. cit., p. 161).
21 Herbert Marcuse, 'The Struggle Against Liberalism in the Totalitarian View of the State', op. cit., p. 39; Karl Marx, *Capital* (Volume One), in *The Marx-Engels Reader*, 2nd, R. Tucker (ed.) (New York: Norton, 1978), p. 321.
22 Hubert L. Dreyfus, 'Heidegger on Gaining a Free Relation to Technology', in Andrew Feenberg and Alastair Hannay (eds), *Technology and the Politics of Knowledge* (Bloomington, IN: Indiana University Press, 1995), p. 102. For a philosophical defense of Heidegger's hope for a 'new beginning', see my 'Ontotheology? Understanding Heidegger's *Destruktion* of Metaphysics', forthcoming in the *International Journal of Philosophical Studies*.
23 On Heidegger's understanding of this alternative, see ibid., pp. 102–4.
24 Marcuse, 'Some Social Implication of Modern Technology', op. cit., pp. 46–48; see Heidegger, *Poetry, Language, Thought*, trans. A. Hofstadter (New York: Harper & Row, 1971), pp. 152–3.
25 If television has been the best 'opiate of the people' since religion, the Internet has the potential to function more like a psychedelic, opening minds and increasing rather than diminishing the interaction between self and world. Feenberg himself steadfastly defends the democratic *potentials* emerging within recent forms of cyber-optimized political networking, paying less attention to the political dangers 'lurking' here as well.
26 Marcuse, 'Some Social Implication of Modern Technology', p. 46; ibid., p. 55.
27 Thanks for this example go to John Senion.
28 Cf. Charles Spinosa, Fernando Flores, and Hubert L. Dreyfus, *Disclosing New Worlds: Entrepreneurship, Democratic Action, and the Cultivation of Solidarity* (Cambridge, MA: MIT Press, 1997), pp. 52–54.
29 Feenberg pokes fun at Heidegger's critique of typewriting (see Heidegger, *Parmenides*, trans. A. Schuwer and R. Rojcewicz [Bloomington, IN: Indiana University Press, 1992], pp. 80–87). I find it remarkable, however, that in 1942 Heidegger already recognizes (in the replacement of handwriting by typewriting) a symptom of our ontological transformation toward enframing, a transformation which only becomes obvious once typewriting itself is replaced by word-processing. For a convincing argument to this effect, see Hubert L. Dreyfus and Charles Spinosa, 'Highway L. Bridges and Feasts: Heidegger and Borgmann

on How to Affirm Technology', *Man and World* 30 (1997), no. 2. When Heidegger looked out at the highway interchange and the powerplant on the Ister and found words which now seem to describe those developments we associate with the Internet, genetic research, and cloning, his was not what Auden called 'The dazed uncomprehending stare / Of the Danubian despair'.

30 Here Feenberg follows the Foucaultian thinker Michel de Certeau rather than 'the final Foucault', who abandoned his own earlier focus on the power-resistance isomorphism in favor of an 'aesthetics of the self' after his concrete genealogies taught him that such resistances are too often re-inscribed into the system so as to expand and reinforce its rule. (For a particularly ironic example, we might think of the way in which the New Left student movement inadvertently catapulted Reagan to power.)

31 For Heidegger, history does not flow in a smooth, uniform succession; the wheel of history turns in starts and stops, *revolutions* catalyzed by climactic events which set the tone for the epoch which follows; cf. Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1962). On Heidegger's understanding of a new 'god', see my 'The Silence of the Limbs: Critiquing Culture from a Heideggerian Understanding of the Work of Art', *Enculturation* 2 (1998), no. 1.

32 See Ernesto Laclau and Chantal Mouffe, *Hegemony and Socialist Strategy: Toward a Radical Democratic Politics* (London: Verso, 1985).

33 One problem with staking the future of the New Left on the hope that local, situated micro-struggles will converge into a democratizing counter-hegemony is the fact that our recent political history seems to demonstrate that egalitarian groups have great difficulty building and maintaining large-scale alliances. Leftist anti-authoritarianism and distaste for coercion often generate an insistence on communal unanimity which (especially when combined with the tendency toward radical self-critique) tends to splinter and divide egalitarian alliances. See Michael Thompson, Richard Ellis, and Aaron Wildavsky, *Cultural Theory* (Boulder: Westview Press, 1990), pp. 86–93.

34 For Heidegger, such democratization for the sake of control would be, at best, an attempt to roll back the wheel of history, reconstituting modern *subjects* out of post-modern *resources*.

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Iain Thomson, Department of Philosophy, University of New Mexico, 513 Humanities Building, Albuquerque, NM 87131, USA