

# PHENOMENOLOGY AND THE PHILOSOPHY OF TECHNOLOGY

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# Epilogue

*Jochem Zwier and Bas de Boer*

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In circling back to where we started, this volume took Martin Heidegger's and Maurice Merleau-Ponty's phenomenological responses to Edmund Husserl as a point of departure. We deemed it relevant to begin there, since Heidegger's prioritization of practical involvement in being-in-the-world, Merleau-Ponty's emphasis on bodily involvement, as well as the way these authors address these issues as pertaining to how the world appears, decidedly bring phenomenological inquiry to bear on technology. It is accordingly no surprise that the question concerning technology becomes a central concern for Heidegger, and that the relation between the being of the body and the being of the world occupies Merleau-Ponty at considerable length. Neither is it a surprise that the philosophy of technology has taken many cues from the works of these authors, as evidenced by the frequent occurrence of references in postphenomenology's followers and detractors.

This of course tells a rather orthodox or traditional story of the way philosophy of technology and phenomenology came to meet, with the protagonists being the usual suspects (Husserl, Heidegger, Merleau-Ponty). Although not particularly original in this sense, our approach has the advantage of offering an introduction to readers that are less familiar with the affair of phenomenology and the philosophy of technology, while simultaneously asking how the work of contemporary phenomenologists of technology relates and responds to these traditional figures. As mentioned in the introduction, we considered it sensible to categorize these responses along the lines of method (how does phenomenology access or approach technology?); technology as phenomenon (what does it mean to take technology as phenomenon, rather than as something else?

How does it appear as object?); and praxis (what do phenomenological inquiries bring to bear on technological practice or practices?).

Given this approach and way of structuring, the present moment calls for posing the evaluative question as to whether our approach was fruitful. What do we learn when surveying the contributions that make up the present volume?

A first lesson consists in the observation that, similar to what Friedrich Nietzsche once remarked about the will: phenomenology only appears singular as a term. This is to say that when reading through this book, one encounters many perspectives that all make reference to phenomenology in highly divergent ways. While some authors take phenomenology to mainly refer to the careful examination of lived experience, others read it through a more hermeneutic and even socio-historical lens, while still others seek to infuse phenomenology with other empirical methods from science and technology studies (STS), media studies, and sociology. If the present volume adequately captures the lay of the land, we learn that a central, overarching perspective on 'the' phenomenological method or 'the' way of inquiry is no longer sought after. Rather than extensive discussions on the ultimate ambitions of phenomenology as a way of philosophical inquiry, we encounter a variety of approaches that draw on and borrow from phenomenological insights. It thus appears that we have considerably strayed from Husserl's endeavour to develop phenomenology as a 'rigorous science' (Husserl, 2002) that would offer a transcendental foundation for all the other sciences.

Perhaps we must no longer speak of phenomenology of technology, but of phenomenologies of technologies. While a proper evaluation of this development lies beyond the scope of the present volume, we can draw attention to two noteworthy aspects. On the one hand, it could be argued that the current, somewhat loose and pluralized way of practicing phenomenology carries the merit of opening novel avenues for questioning technology, and of extending inquiries into different technological domains including medical contexts and the uses and abuses of social media. It could be argued (as has repeatedly been done) that such extensions of phenomenology have the merit of carrying phenomenology away from the abstractions often preferred by academic discourses to domains where technological phenomena are routinely encountered in practice.

On the other hand, and this brings us to a second lesson, we can also observe an increasingly distinct reaction to the aforementioned pluralization of phenomenology. As noted in the introduction, this reaction is anticipated by the critique of postphenomenology's empiricism, as found in attempts to rehabilitate technology as an ontological, specifically Earthly or planetary, theme. The methodical chapters of the present volume further demonstrate this reaction, as it is becoming increasingly clear that next to ongoing pluralizing and interdisciplinary approaches, the 'classical' phenomenological question concerning the whole of being is resurfacing. We are thereby reminded of Heidegger's statement that 'metaphysical inquiry must be posed as a whole and from the essential position of the existence (*Dasein*) that questions' (1998, p. 82), of Merleau-Ponty's project where 'the essential is to know precisely what the being of the world means' (1968, p. 6) and, with respect to technology specifically, of the notion of standing reserve, which for Heidegger 'designates nothing less than the way in which everything presences (*anwest*)' (Heidegger, 1977, p. 17). We here find 'whole' and not 'wholes', we read 'the being of the world' and not 'beings of the worlds', we read about '*the way*' (*die Weise*) and not ways.

Does this then imply the return to Heidegger's characterization of the technological whole understood as standing reserve, as expressed in the example of the airliner that is 'ordered to ensure the possibility of transportation. For this it must be in its whole structure and in everyone of its constituents parts, on call for duty, i.e. ready for takeoff' (Heidegger, 1977, p. 17)? As the chapters from the section on method demonstrate, this revisiting of this traditional phenomenological theme does not simply imply the restoration of what Heidegger and Merleau-Ponty said. Rather, what appears to be resurfacing is a renewed questioning of how this whole and its relation to technology must be thought. For one, it remains questionable whether one can speak of living in a *singular* whole or whether pluralism fractures this. Further, the question becomes how the whole must be characterized: must it be addressed as world? As Earth? As Epoch? As historical-hermeneutic coherence? Must technology be pluralized as many technological things themselves? Or does technology found a whole in the sense of a planetary, now increasingly necessary geo-engineered whole? Whatever the answers, it can at least be surmised that the present

volume documents both the ongoing pluralization of phenomenological approaches to technologies as well as attempts to address technology as a whole.

A third lesson concerns the political. In the philosophy of technology, it has by now become a common trope to refute ideas about technologies being politically neutral instruments wielded by subjects who would bear exclusive political agency. From Langdon Winner's identified racist bridges to algorithms of oppression, from planned obsolescence to hostile design, the statement that technologies 'have politics' or at least carry political relevance has more or less become a truism. Various chapters collected here similarly make the passage to the political, whether in terms of material hermeneutics, the de-politization and re-politization of social media, the way phenomenology can be combined with activism, or the outsourcing and therefore becoming political of reproduction. It may thus be clear that the phenomenological perspectives presented in these pages are not isolated to theoretical labour but also engage political practice. That said, a couple of observations must be made on this point.

Although we find numerous analyses of how phenomenological analysis of technology lays bare a political dimension belonging to technology, we do not find a sustained and systematic treatment of said dimension. It is one thing to argue that technologies mediate how political issues arise (just think of self-driving cars and accountability, just think of vaccination and mandates, etc.), it is quite another to ask what a 'political issue' means from a phenomenological perspective, what exactly is experienced when something is regarded or phenomenologically 'intended' as being 'political', or how being-in-the-world relates to being-in-the-polis. While such questions are of course beyond the purview of this book, it does indicate a point of contention that may be worth exploring further. It is perhaps remarkable that, in discussing political aspects, all the authors of the present volume argue that phenomenology is too limited and lacks the wherewithal to address political issues. One calls for a more socio-culturally sensitive material hermeneutic, another for a combination of phenomenology and critical theory, yet another seeks to infuse phenomenological analysis with explicitly ethical concepts of dignity and flourishing. It appears that phenomenology's *analytically descriptive* forte limits its *politically prescriptive* relevance.

This situation is not new. Phenomenology has often been accused of lacking political and ethical thrust. Authors like György Lukács and Theodor W. Adorno have long since criticized the phenomenological method for precisely bracketing everything political. From a materialist-dialectical perspective, phenomenology may ask *how* something appears, but tends to overlook the fact that this 'how' is thoroughly embedded in relations of production. Yes, a phenomenologist can elucidate the fore-understanding at play upon entering a classroom by explicating how, before any explicit or formal cognitions, we have always-already understood where students are to sit and the lecturer to stand. Yes, a phenomenologist can characterize how all these items in the classroom (lectern, chairs, tables) are primarily practically grasped as for-something and thus exist in an equipmental totality that is encountered before said items appear as distinct objects for a theoretical gaze. Yet this says nothing of the exploitative labour that makes the lecterns, chairs, tables, etc. possible. It says nothing about where the wood for the tables is sourced from. It says nothing about the pollution resulting from the production process.

Furthermore, phenomenology has often been criticized for its focus on experience as individual experience. Husserl famously grappled with the relation between his notion of the *ego* and the question of intersubjectivity. Heidegger indeed speaks of being-with and being-alongside others in his descriptions of how *Dasein* navigates the world, but mostly emphasizes individual existence, for instance in how mortal *Dasein* must face its potential death on its own, a 'mineness' that first individuates *Dasein* as a singular, authentic entity. Merleau-Ponty's focus on the body and concomitant distinction between the lived body (*Leib*) and body-as-object (*Körper*) similarly seems to prioritize individual experience. For all its merits, it is not difficult to see how this individualistic focus can serve as an obstacle to traversing to political questions that are necessarily intra-individual, or even how phenomenology could be criticized as ideological in the sense that in merely looking at individual experience, it quietly accepts the place of this individual in society.

These admittedly reductive portrayals of phenomenology and its political critiques reflect a tension at the heart of phenomenological

analysis and political praxis. The chapters that touch on the political in this book appear to grapple with the same tension. It would of course be folly to attempt to solve or dissolve this tension here. The lesson rather seems that this tension continues unabatedly in contemporary phenomenology of technology, leading to the question of how it can be rendered fruitful.

Given this tension, it is all the more striking that the name of Bernard Stiegler remains largely absent in these pages. Striking, because Stiegler's oeuvre is on the one hand clearly rooted in the phenomenological tradition, whilst on the other hand informed by more (post)structuralist, anthropological, and ultimately psycho-analytical approaches. Through the fusing of these traditions, Stiegler seems to offer a systematic framework for integrating phenomenological analysis of technology with renewed political praxis, notably a praxis of care. In closing, it is worth exploring this somewhat further as it offers a potential marriage between phenomenology and having an explicit eye for sociopolitical concerns.

Stiegler ends the introduction to his first book *Technics and Time I* by stating that his work 'call[s] in question Heidegger's claim that "the essence of technics is nothing technical (1977, 35)"' (1998, p. 18).<sup>1</sup> He makes this claim, however, on the basis of a dialogue with phenomenology. One of the key entry-points to his analyses of technics is Husserl's *Crisis of the European Sciences* from which Stiegler derives that 'the technicization of science constitutes its eidetic *blinding*' (Stiegler, 1998, p. 3). As mentioned in the introduction, according to Husserl, the work of Galileo marked a break with the lifeworld—it turns a blind eye to the lifeworld by creating a world exclusively understood in mechanistic and scientific terms. As Husserl describes, whereas initially it was clear that Galileo's arithmetic descriptions of the world were to be understood as idealizations quite different from the world in which they originate, modern philosophy endowed these idealizations with metaphysical primacy, such that their connection with the lifeworld was lost (Husserl, 1970, p. 90, p. 221). The forgetting of this initial connection is the ground of Husserl's diagnosis that the European sciences are in crisis.

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1 We limit ourselves here to how Stiegler takes inspiration from phenomenology in the *Technics and Time* series, which arguably lays the foundation for his philosophy.



Stiegler builds on Husserl's diagnosis and connects it to Heidegger's characterization of modern technology as enframing. On the one hand, Stiegler maintains that Husserl's diagnosis according to which modern science forgets its connection with the lifeworld is intensified in Heidegger's assessment of modern technology as enframing, where the forgetfulness of being characteristic of Western metaphysics finds its culmination and is therefore 'the extreme danger' (Heidegger, 1977, p. 28). On the other hand—and this is why this forgetfulness manifests experientially—the existential constitution of *Dasein* takes place through its interaction with equipment, such that its relation with the world is always shaped through technicity (Stiegler, 1998, pp. 4–5). Here Stiegler is also inspired by phenomenology. Just as Heidegger, he understands humans as *Dasein* that is fundamentally temporal: 'it has a past on the basis of which it can anticipate and thereby be' (Stiegler, 1998, p. 5). Hence, existence is anticipatory existence, and how anticipation takes place is crucially structured by *Dasein*'s interactions with technologies. Stiegler therefore speaks of 'technics and time'.

To further clarify this, Stiegler turns to Husserl's *On the Phenomenology of Internal Time Consciousness*. Through a critical reinterpretation of Husserl's notions of retention and protention, Stiegler attempts to characterize how technics structures anticipation, which eventually leads to the development of the notion of *tertiary memory*. According to Husserl, our perception of temporal phenomena must be understood as a process of modification, such that retentions and protentions are constitutive of present perception (Stiegler, 1998, p. 246). Husserl gives the example of hearing a melody: 'at any particular time there is always a tone (or tone-phase) in the now-point. The preceding tones, however, are not erased from consciousness. Primary memory of the tones that, as it were, I have just heard and expectation (protention) of the tones that are yet to come fuse with the apprehension of the tone that is now appearing and that, as it were, I am now hearing' (Husserl, 1991, p. 37, cited in Stiegler, 1998, p. 247). Stiegler generalizes this structure of retention-protention to the perception of any object—after all, to exist is to exist temporally, such that any perception is conditioned by the past as well as oriented towards the future.

Husserl makes a distinction between *primary* retention and *secondary* retention: the former refers to the lived experience of temporal extension

by means of retentions in the here-and-now—like in the above example of hearing a melody *as* melody—whereas the latter is understood as a representation of an earlier perception and hence derivative (like in recognizing a melody as a theme from Beethoven, e.g., Stiegler, 2008, p. 6). According to Stiegler, however, temporality is to be understood fundamentally historically, which demands ‘that the already-there is not lived but inherited, constituted outside any perceptions, [yet] nevertheless constitutive of presence as such—and this is why temporality cannot be conceived in terms of the “now”’ (Stiegler, 1998, p. 248). In Stiegler’s view, then, temporality is constituted through technics—through originary prostheticity. Technical objects are ‘before anything else, memory’ (Stiegler, 1998, p. 254): even basic flint tools already carry an exteriorized experience such as ‘hammering’, where this exterior memory trace can be passed on to be interiorized or re-membered by subsequent generations. Writing—that is to say, *memoirs*—can accordingly be seen as an explicit and obvious iteration of this exteriorization-interiorization dynamic that for Stiegler belongs to technics as such. This makes it so that our perceptions are grounded in retentions that we have technically inherited, which also constitute protentions and hence anticipation.

Stiegler’s central term *tertiary memory* or *tertiary retention* denotes that the technical constitution of perception is thus clearly inspired by Husserl’s phenomenology of temporal perception. At the same time, since this phenomenological constitution is carried by the memory-trace of technics, Stiegler can go on to fuse the phenomenological insight regarding temporality with political questions, which then circle around *caring* for the trace. If anticipation, retention, and protention are central to the existence of *Dasein*, and if these are not simply a-priori given but result from the re-memberance of technical memory traces, then both the care for these traces and the techniques of re-memberance become politico-ethical questions. We are of course reminded (no pun intended) of Plato’s *Meno*, where knowledge is a distinct question of remembering and where upbringing or *paideia* can be understood as the art or technique of remembering well (e.g., Socrates helping the boy remember, midwifing the memory as it were). We are further reminded of the Stoa, where a right upbringing was considered in terms of remembering the *loci classici* (of, above all, Homer). All of these are instances of careful and attentive re-membering, and it is by means of these that we become individuated as well-formed individuals.

For Stiegler, such care and attention now become urgent questions in our time where, to put it bluntly, hyperindustrial technologies tend to capture care and attention, engendering not the individuation of well-formed individuals, but leading to disindividuation and therefore dehumanization. We may think of social media platforms that tends towards offering instant gratification, of repetitive video games that capture ‘dopamine rush’ attention while hardly inviting or even blocking the learning, careful re-membrance and therefore individuation to be gained from re-membering the lessons of Homer and Socrates. Here, Stiegler warns of the enormous danger of the disindividuated and therefore inhuman, and attempts to develop a countervailing politics of attention.

The intricacies of how toxic forms of attending to the technical memory-trace can be distinguished from curative ones cannot be covered here, but it may be clear that Stiegler’s reading of phenomenology and its technical-memorial underpinning may open a way to more systematically address the aforementioned tension between phenomenology and the politico-ethical. We previously remarked that at least in the contributions collected here, a sustained examination of what ‘the political’ might mean from a phenomenological perspective on technology remains absent. For Stiegler, the phenomenon of the political or rather politico-ethical precisely becomes a technical phenomenon, both in the sense that the memory trace to be cultivated *is* technics (as tools, as buildings, as books, i.e., as recordings of culture so to speak) as well as the sense of developing techniques *against* the capture and short-circuiting of care and *paideia* by hyperindustry and contemporary media technologies, and *for* their cultivation.

In sum then, besides offering a documentation of present-day work in phenomenology and technology, the present volume demonstrates an ongoing discussion between the pluralization of phenomenologies of technology on the one hand and a singularization of *the* phenomenon of (planetary) technology on the other. It further demonstrates that wherever one lands with respect to this discussion, the passage to the political remains fraught with difficulty, which may explain why it is hardly undertaken in a systematic way, at least on the pages making up the present volume.

Were one to give this a positive spin, one could argue that being exhaustive was never on the list of ambitions for this book. This is to say

that gathering together the present chapters' authors not only shows what is *actually* being worked on today, but also highlights a *potential* for further developments in the (political) phenomenology of technology. As suggested, the work of Stiegler may well open avenues for following up on this potential, avenues that will likely traverse the lands of critical theory as well, since the question of attention is also that of capitalism (e.g., hyperindustry) and of desire (e.g., culture-industry), two themes often addressed in Critical Theory. The fact that neither the latter nor Stiegler is frequently mentioned in these pages is perhaps best read as an invitation.

Phenomenology concerns the 'how' of how things appear. It may have become clear that this 'how' cannot be considered in isolation from technology. Yet it may also have become clear that this says very little indeed. If unhindered by stylistic concerns, one could say that the question remains how the 'how' of the technological phenomenon is to be addressed. Perhaps the 'how' primarily refers to a plurality of artificial things mediating how other things appear. Perhaps the world on a geo-engineered Earth attests to a singular mode of appearance. Perhaps how things appear depends on how one attends, cares, and re-members the memory trace by which appearance becomes possible. As the 'how' of the 'how' continuously changes in light of technological developments, phenomenology is perhaps never exhausted as Husserl had feared towards the end of his life, but instead is compelled to (re)invent itself ever anew.

## References

- Heidegger, M. (1977). *The question concerning technology and other essays* (W. Lovitt, Trans.). Harper.
- Heidegger, M. (1998). What is metaphysics? (D.F. Krell, Trans.). In W. McNeill (Ed.) *Pathmarks* (pp. 82–96). Cambridge University Press.
- Husserl, E. (1965). Philosophy as Rigorous Science. In Q. Lauer (Ed.), *Phenomenology and the crisis of philosophy*. Harper.
- Husserl, E. (1970). *The crisis of the European sciences and transcendental phenomenology* (D. Carr, Trans.). Northwestern University Press.
- Merleau-Ponty, M. (1968). *The visible and the invisible*. Northwestern University Press.
- Stiegler, B. (1998). *Technics and time, 1: The fault of Epimetheus* (R. Beardsworth & G. Collins, Trans.). Stanford University Press.