In “The End of Philosophy and the Task of Thinking” (1964), Heidegger famously takes stock of the present and future of philosophy in the time of cybernetics. “Philosophy is ending in the present age,” he writes. “It has found its place in the scientific attitude of socially active humanity. But the fundamental characteristic of this scientific attitude is its cybernetic, that is, technological character. The need to ask about modern technology is presumably dying out to the same extent that technology more decisively characterized and directs the appearance of the totality of the world and the position of man in it.” For the late Heidegger, writing near the last decade of his life and well ensconced in his mountain chalet, the rapid technological development of the global north spells an impending doom: the end to philosophical thinking and to a properly authentic relationship to the world. The planetary control apparatuses that we subsume under the sign of “cybernetics” have replaced the traditional role of metaphysics and, thus, usurped philosophy. “Philosophy is metaphysics. Metaphysics thinks beings as a whole—the world, man, God—with respect to Being, with respect to the belonging together of beings in Being.” Now, for Heidegger, it is cybernetics that thinks the totality. So, new questions are raised. Whither philosophy in the half century since Heidegger announced its death knell? Can philosophy survive the complete digitization of the world? Can metaphysics still have currency in an age of ubiquitous computation?
The past decade or so has seen a number of important monographs reckoning with precisely the problem (and potential) of thinking philosophy together with the high-powered computers that are all pervasive in contemporary life, including works from scholars such as Brian Massumi, Reza Negarestani, Luciana Parisi, Stamatia Portanova, to name just a handful. To this group we can add Yuk Hui’s impressive new book. *On the Existence of Digital Objects* is first and foremost a work of philosophy, of philosophical synthesis, rereading the western canon retrospectively from the point of view of a subjectivity thoroughly imbricated with digital technics. It stakes a strong claim for the continuation of metaphysics after the age of cybernetics, because as Hui puts it, “a fundamental Ontology can no longer be fully grounded without taking technical systems into account” (248). Hui’s work is not *philosophizing on* the nature of the digital from a remove, or, even worse, an *application* of digital tools in the pursuit of traditional humanistic inquiry as in the enthusiasm for the so-called digital humanities, but rather a transductive fusion of philosophy and digital technics into an original expression of a *digital philosophy* that is worthy of the name. As he puts it, “this book is the result of an endeavor to read the history of philosophy through digital objects and at the same time to read the history of digital objects through philosophy” (50). Both terms are thereby constituted in their relation to each other. For philosophy to continue to exist, for it to evade the obsolescence that Heidegger saw as its destiny, the role of technics in the development of human social life must be brought to the fore. The technics that Hui is questioning toward are the multitudes of digital objects that abound in our lives: YouTube videos, gifs, emails, all those objects “that take shape on a screen or hide in the back end of a computer program, composed of data and metadata regulated by structures or schemas” (1).

One of the chief innovations in *On the Existence of Digital Objects* is alluded to on the very last page while recapitulating the book’s task of meditating on digital objects: “Some art practices may have given us some insight into the development of techniques, but a more systematic approach must be developed” (252). Hui’s advantage over much of the more cultural studies-inflected works on the digital is his deep knowledge of both philosophy and computer science. The book evinces a *technical knowledge* of both major subjects—one humanistic, one scientific. As such, there is little need to fall back on the crutch of buttressing speculative claims about current or emerging technology with recourse to artistic examples as if they were actually existing states of the world—an unfortunate holdover from the proliferation of cyberculture theory in the 1990s that often outpaced by some distance the real state of computing power. Instead, Hui’s work is grounded
in an uncommon philosophical and technical rigor that may alienate those used to a culturalist reading of digital technology. Hui’s approach is to consider what it will mean for humans to interact with what he calls a “machine hermeneutics” in the 21st century. The resulting tension between formal computational logic and the imagination of Dasein is a guiding theme throughout the book, and it is to Hui’s credit that his work doesn’t resort to science fictional imaginaries to goose the already fraught convergence.

Hui’s stated method is another one of the book’s strengths, and it addresses one of the pressing problems for the scholar of digital culture, new media, and the like. In doing this work there will always be a question of where to focus one’s attention when studying networked computer systems. Where precisely does the scholar insert themselves? On what side of the proverbial screen: the “human” side of the everyday interaction of people with gadgets, or the “machine” side of the hardware? And once that decision is made, what scale ought one to operate from: electronic voltage differences, an individual user, the global network of infrastructures that make the internet possible?

Hui’s solution is to develop a method that attends to the orders of magnitude that make up the complex interactions between these multiple layers. Hui’s book “aims to produce a system of thoughts that bridges different orders of magnitude through developing a theory of relations” (31). This articulation of the relation between a variety of pertinent literatures and technical orders of granularity is a model for how the problem of scale can be broached in the new modes of digital philosophy. As Bernard Stiegler states in his enthusiastic foreword, Hui’s synthesis of “analytical and continental philosophy, cognitivism and phenomenology, and computational theory alongside the human and social sciences” points to the ways in which “the relations and nonrelations between them are to a large extent the result of unconceptualized questions of scale” (viii). Stiegler’s influence on the project can’t be overstated. Hui, who has worked with Stiegler on developing a theory and praxis of digital tools at his Institut de Recherche et d’Innovation in Paris, takes the emphasis on the co-constitution of the human being and technics from Stiegler, whose works—especially the Technics and Time series—have had a great impact on the philosophy of technology since the first volume’s English translation in 1998. Several of Stiegler’s key concepts, such as epiphylogenesis—the evolution of the living through nonliving means—and tertiary retentions—the exteriorization of human memory into archivable media—are prevalent in Hui’s approach to the necessity of thinking the cultural and technical realms together.
And when Hui claims that what is at stake in his project is “the synthesis of time produced by algorithms” (252) we hear Stiegler’s insight into the persistence of memory through time by instilling technical objects with cultural information.

Readers sympathetic to Stiegler’s overall project but who have perhaps been disappointed by the lack of technical specificity in his works will have an ally in Hui, who has taken the core insights of Stiegler and applied the expertise of a practitioner. That said, Hui, for better or worse, adopts much of Steigler’s philosophical archive, which is to say, the European canon: Kant, Husserl, Heidegger—not the most diverse bibliography to be sure. But we gain truly innovative readings of some well-worn figures. For example, Hui takes from Stiegler an abiding interest in the philosophy of Gilbert Simondon, known for decades in French philosophy circles but only now becoming widely translated in the Angophone world. The title of Hui’s book pays obvious homage to Simondon’s *On the Existence of Technical Objects*, recently published in English by Univocal Press. Especially relevant to Hui’s discussion of the digital object is the theme to which Simondon dedicated his magnum opus, that of individuation. Examining how exactly digital objects become individuated, the processes of becoming that concretize into a metaphysics of objects, makes up the first part of the elegantly structured book. Interrogating the consequences of living in what Simondon would call an “associated milieu” of human and machine interrelation will be one of the vital intellectual tasks in the years ahead. As Hui says, “A project concerned with the existence of digital objects wants to rearticulate the positions of both objects and human in the technical system in favor of an individuation proper to humans and objects. In other words, underlying this project is a political agenda of individuation” (33). The political stakes of the project—which may appear opaque at first—come into greater focus by the end of the book, as we’ll see in a moment.

This is a major contribution to the subfield of the philosophy of technology, and as such, takes on two of the towering figures in the 20th century thinking on humans’ relationship with technics: Heidegger and Simondon. Hui puts them into productive conversation with each other, complexifying a standard reading of Heidegger, the technophobe, and Simondon, a kind of proto-tech guru. Hui applies his unique methodology to this diode: “I will not situate Simondon and Heidegger in opposition to each other but rather will consider them as representatives of different orders of magnitude. It is easy to come to the conclusion that Heidegger’s critique of technology originates in an understanding of objects, whereas for Simondon, technology is no less than the evolution of objects. In fact, Heidegger
and Simondon both want to move humans from the conception of themselves as the center of the world” (104-105). This decentering of the human could be seen as positioning the text squarely within the recent “non-human turn” in the humanities, which includes various modalities of speculative realism, new materialism, affect theory, thing theory, and related pursuits. But if the reader’s yen for yet another inquiry into the fetishizing of materiality as such has begun to wane they shouldn’t be put off by the potential association with the by-now rote discussions of “vibrational intensities” and watered-down Deleuzianisms that can populate these works.

Indeed, *On the Existence of Digital Objects* may be a difficult register for those coming to these discourses for the first time. Without a strong background in Kant and various trains of phenomenology, for example, the reader may be lost in the patient but difficult explication of texts and scaffolding out of these philosophical layers into a coherent system. Those turned off by a discussion of, say, the differences between the logic of the early Husserl and late Husserl will want to refresh themselves with some additional secondary texts before tackling this book.

While the sophistication of such a philosophical analysis of scale is perhaps unprecedented here, what one doesn’t find is much attention paid to anything like the quotidian experience of using electronic devices and the interaction with digital objects in our everyday lives as consumers and makers. This again arises as a by-product of the book’s primary emphasis on peering “under the hood” of our machines, as it were, and trying to understand the ontology of the algorithms that shape our lives. Much of the popular writing on new media is made up of this register, of course, but it could have helped to ground the dense philosophical explication in an experience of digital objects that would be familiar to most non-engineers. We do get a few examples attenuating the discussion to this scale, as in the case of navigating YouTube at the end of Chapter 3, “The Space of Networks,” or the description of the practice of tagging digital objects in Chapter 5, “Logic and Object,” but the book could have benefitted from more extended case studies of this variety.

The chapter in which the political stakes of the individuation of digital objects are the most explicit is the last on “Logic and Time.” While not on its face an overly political topic, Hui turns in this chapter to a fundamental concept in both Heidegger and Stiegler, that of *care*. This opens up the perspective of what Stiegler calls the “organological-political” (xiii), projecting existential questions about
the appropriate political posture vis-à-vis the reality of planetary computation and control networks. How might one develop a structure of care that is responsive to the everyday confrontation with algorithmic governmentality? Should we work inside the milieu or seek alternatives outside of it? Following Simondon, we would have a rather pessimistic idea about the possibility of structural change from within. Hui quotes Simondon on this score: “One changes tools and instruments, one can construct or repair a tool oneself, but one cannot change the network, one doesn’t construct oneself a network; one can only tie in with the network, adapt to it, participate in it; network dominates and encloses the action of individual beings, dominates even every technical ensemble” (27). This would be a way of describing what Alexander Galloway has called “the problem of reticular pessimism,” that is, only ever conceiving of the world as a series of networks—and all that such a diagram pharmacologically entails.

But in Hui’s closing section, we are offered a chance to develop new architectures and structures of care from a position that acknowledges our indissoluble place within the technical milieu. The digital object, while still thoroughly enmeshed in its network relations, has the ability to resist the foreclosure and atomization brought on by the decision to grammatize all of life according to digital logics. By its very relationality, the digital object “opens up worlds, unifies them, and discloses to users of the other possible worlds that objects are not passive syntheses but refer you to somewhere else, out of anticipation; this is usually called serendipity” (219). In order for new forms to emerge we have to understand the ground from which they emerge. Hui provides us with the conceptual tools for understanding the ontological ground of our digital objects within a technical system. Adapting the network to more than just ends remains the task ahead, perhaps even allowing us to escaping its reticular enframing altogether.

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