



Technology as Environment

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EDITORIAL

Technology as Environment

Anne-Marie Willis

Welcome to Issue 4 of *Design Philosophy Papers*. Our theme, elaborated below, is ‘Technology as environment’. This connects back to the ‘Mediage’ theme of Issue 3 on the designing effects of the televisual and real-time media.

In this issue we also have reviews of two books on the city, foreshadowing one of our themes for 2004 – ‘Urbocentrism’. Other themes under development include ‘Design & Remaking Ethics’ and ‘De-Re-Materialisation’. We’ll be approaching prominent writers to address these, as well as issuing general calls for papers. The ‘Hot Debate’ section is open a broader range of topics and reader contributions, with a debate on design education featuring in the next issue.

DPP’s themes and papers are all linked by the aim of bringing the thinking of design to concerns of absolutely vital futural significance. We’re interested in what design *does*, rather than ‘how to design’. This doesn’t mean what we publish is irrelevant to practice – understanding what design does can change how it is approached, taken up and used.

If you read DPP regularly you'll find that many ideas appear, re-appear and get elaborated over time. To take best advantage of this we recommend becoming a subscriber – this means you'll be able to access back issues & will be notified when each new issue is posted.

Technology – at first utterance, a seemingly neutral descriptive term under which all manner of artefacts, processes and bodies of knowledge have been collected, from the making of simple tools to complex systems that can launch satellites into space or disassemble and reconfigure chains of DNA. However, the idea of technology collapses under the weight of that which has been gathered under its name, imploding like a dark star.

Whether defined broadly and incoherently or precisely and rigorously¹ over and above the debates about where to draw boundaries and make distinctions – as if it were possible any longer to talk about the technological versus the non-technological – there are the meta-emotive connotations of technology. For rarely is the term evoked without judgement being passed either explicitly or implicitly. Thus we find well-worn tropes jostling against each other – technology as saviour or threat, as dehumanising or liberatory. Technology can only be a meaningful category to the extent that it has an other – which is, in fact, a fast-receding situation. It's highly unlikely, for instance that the six-year olds of today's industrial and post-industrial cultures will consider technology *per se* a critical issue when they come to maturity. Their fate is already sealed as technology reaches the point of its full metaphysical realisation.

Already for current generations it is no longer appropriate to think of technology as technics or as particular kinds of reified labour power (e.g., machines), but rather technology arrives as the means through which worlds are encountered and negotiated. An indicator of technology's metaphysical pervasiveness is the way in which the instrumental rule of calculation can fall over everything – whether the formation of the universe, the nature of creativity, the workings of the human brain or the behaviour of crowds – all of which can and have been explored via computer modelling and simulations. Another indicator is the way in which technological apparatuses have come to take on a life of their own, evolving according to their inherent logics and appropriating those who use them into their relentless (and ultimately meaningless) functioning and functionality. The media critic/philosopher, Vilem Flusser made this clear in his characterisation of the camera as an apparatus programmed to create images according to scientific theories (of both optics and chemistry) that 'uses' photographers to realise its capacities and via feedback, to constantly 'improve' its performance (increasingly 'realistic' images produced faster, cheaper, more automatically, etc). He makes a distinction between: tools (as extensions and amplifiers of human capacities; machines (as tools that have grown and become technical and more complex,

and which human beings came to 'serve'); and apparatuses (which are either automatic or require human beings as functionaries).²

Well before theorists of techno-cultural determinism like Flusser (or Marshall McLuhan or Jean Baudrillard), the philosopher Martin Heidegger in *Being and Time* (1927) had identified being-in-the-world as *primordially* practical and enmeshed in artefactual environments of the 'ready to hand'. Decades later, in his essay *The Question Concerning Technology* (first delivered as a lecture in 1955) Heidegger presented technology not as it is commonly understood, as a means for realising human ends, but as something more fundamental, a means of revealing 'what is', so that modern technology, based as it is on productivist thinking, operates as a 'challenging' that 'gathers man into ordering'.³ Likewise the revealing and challenging that rules through modern technology 'set upon' nature to constitute it as a standing reserve [*Bestand*] ordered to stand by, ready to hand to be appropriated whenever required.⁴

From a contemporary perspective, such has been the proliferation of the materiality and immateriality of technology that it has become 'nature-like' in its omnipotence. In this context, we can no longer think technology from an independent position of observation, rather we think technologically as reason has become reified in varied technological forms. At the same time, faith in reason has been transferred to faith in technology (manifested in much 'popular culture' in the assumption that problems of the unsustainable will be solved if not by existing technology, then by future technologies, thus making it unnecessary to modify human behaviours).

It follows that 'technology as environment', our theme for this issue of DPP, claims recognition of the fact that technology has become a naturalised condition of body and mind. We live with and in the products of technology and their designing agency. Increasingly, we are not just designers of technology but ourselves the consequences of technological design.

It is hardly possible any longer to pose 'the natural' as the other of technology. There are two aspects to this – the conceptual and the material (as well as their inter-relation). Conceptually, our modes of naming and exploring the natural are via the instruments and representational forms of technological enquiry. Materially, our past and present technological interventions in the natural world have changed 'natural systems' forever. As Bill McKibben (cited in Aidan Davison's paper, 'Rapt in Technology') indicated some time ago, even the very composition of the air we breathe whether in cities or at the most remote places on earth, has been irrevocably altered by the legacy of more than two centuries of industrialisation. It is just no longer possible to clearly distinguish between the product of nature and the product of technology.

Dialectically, we can no longer imagine an ability to secure our future without technology, but it also threatens what we have been or believe ourselves to be. Despite this we persist with attachments to ideas like ‘technology as a tool for furthering human ends’, while not noticing the extent to which numerous technologies design us and how we see, think and act. This ontological designing of technology is still largely unexplored territory. Several papers in the last issue of DPP examined the fact that while we have knowledge of the technology of the televisual and the content it delivers, our understanding of what it does and means, or even our methods of exploring this, remain utterly impoverished.

To continue this exploration via consideration of ‘technology as environment’ we present two very different papers. The first is by environmental philosopher Aidan Davison, in which he illuminates some of the contradictions that arise when technological thinking subsumes environment in the name of sustainability. Technology is being enthusiastically embraced by a variety of environmental discourses, especially by advocates of sustainability like Paul Hawken, Amory Lovins and William McDonough. Davison is highly sceptical of this uncritical ‘eco-modernism’ that blithely assumes that technological progress and marketplace forces will ‘save the environment’. Rather than buying into technophilia vs technophobia debates, he argues for recognition of technology as ‘a medium of experience’, a habitat, something that is “never simply used (but) always inhabited.” Drawing on French sociologist Pierre Bourdieu’s notion of ‘habitus’, he states, “technology-as-environment names nothing less than the generative reciprocity of self and world.” And it is this recognition that is the place from which agency can be contemplated.

This connects to Augustine Berque’s position, cited in the last issue of DPP that human beings “*exist* (stand outside of themselves) both technically and symbolically, as the systems of things which have exteriorised the functions of their animal bodies into what has become a human world. With the emphasis on ‘*exist ... as*’ this claim abolishes the notion of an autonomous subject standing before material and symbolic worlds. The implication is that there is no human existence outside of the systems of things that human beings have created. No core animal-self, no pure physicality, no innocent dwelling in a state of nature that could be appealed to or recovered. Berque’s thesis applies across time and cultures, but if we bring it to today’s post-industrial cultures, the “system of things” we “exist as” has gone way beyond tools and machines as exteriorisations of our animal bodies, and now includes exteriorisations (material and immaterial) of instrumental thinking (e.g computing) and Flusser’s self-evolving apparatuses.

The second paper comes from the inside of this outside. It’s by a postgraduate student working in the area of ‘human-computer interaction’ in an engineering faculty with a wide range of research programs all devoted to improving the efficacy of computing and its

applications. In this research environment ‘ubiquitous computing’ (a significant manifestation of technology-as-environment) is taken as given. Nicolas Makelberge is troubled by the way in which the inscribed rationalism of computing comes to determine new applications according to a rationale of ‘efficiency’, in which human users are supposedly liberated from mundane tasks by embedded intelligence (e.g. smart cars or smart houses that automatically respond to changes in external conditions). Such devices, predicated as they are on operational concealment, have the capacity to design our withdrawal into a condition of oblivion to our immediate environments, and thus they unwittingly design irresponsibility.

The drive for ubiquitous computing (which goes by the uninspired name of ‘ubicomp’ in the trade) to take over seemingly routine everyday activities in the name of comfort, convenience, etc, Makelberge suggests is a diminishment rather than an enhancement of human experience, taking away sources of simple pleasure and means of exercising control over one’s life. He puts forward two briefly sketched ‘design drafts’ for computer applications that go in the opposite direction, requiring ‘users’ to take certain actions that, while having benefits in themselves, also prompt them to consider the material impacts of their actions. He is also troubled by the lack of debate about the nature of happiness amongst those who are so busy pushing the technological frontiers of ubiquitous computing, and the dominance of the outdated assumption that freeing us from physical effort will improve quality of life and make more time available for worthwhile activities. Such assumptions remind us of debates rehearsed by feminism many years ago, when the contradiction was pointed that women were increasingly re-entering the labour force in order to earn money to buy labour-saving domestic appliances.

Co-incidentally, Nicolas Makelberge, in a modest way, takes up what Aidan Davison advocates in his concluding lines: “Artefacts can be, and are being, relocated and redesigned in our lives to allow new meanings of nurture to be born in us, heralding the time when care will flow more strongly from us to our world and from our world to us through the medium of technology.”

Notes

1. For a thorough historical account of different meanings and understandings of technology see Carl Mitcham *Thinking through Technology* University of Chicago Press, 1994.
2. Vilem Flusser *Towards a Philosophy of Photography* (trans Anthony Mathews) London: Reaktion Books, 2000 (first published in German in 1983).
3. Martin Heidegger *The Question Concerning Technology and Other Essays* (trans W. Lovitt), New York: Harper & Rowe, 1977, p. 19.
4. *Ibid*, p. 17.