

Borgmann, *Technology and the Good Life?* and the Empirical Turn for Philosophy of Technology

Hans Achterhuis
Twente University

Albert Borgmann, *Technology and the Character of Contemporary Life: A Philosophical Inquiry*, University of Chicago Press, 1987.

Two sentences struck me in the many diverging commentaries on Borgmann's philosophy of technology that *Technology and the Good Life?* contains. Both sentences also express in a perfect way the ambivalence I feel in relation to Borgmann's *Technology and the Character of Contemporary Life*, which is also in my eyes one of the most important studies in the philosophy of technology of the last twenty years. In his article, Andrew Light confesses that he doesn't clearly know why he is drawn to Albert Borgmann's work for inspiration in his own philosophy of technology that by the way is quite different from Borgmann's. I share his bewilderment. My own direction in the philosophy of technology is influenced strongly by the ideas of the Belgian philosopher Gilbert Hottois who is hardly known in the United States. Hottois is much more open to the development of our technological culture than Borgmann's position permits. Still, I also have to confess that the work of Borgmann continues to fascinate me, although, rather than a positive stimulus for my thinking, it has become of late a stumbling-block, a block which makes it possible to delineate more sharply my own position.

Notwithstanding this, it is clear that you cannot dismiss Borgmann's vision when you want to develop a philosophy of technology that is capable of addressing the big problems of the technological culture of the 21st century. Why does Borgmann's philosophy occupy this special position, not only for me but for many of the authors of *Technology and the Good Life?*

A personal answer to this question I find in the second sentence that struck me. Gordon Brittan acknowledges that he is very much drawn to Borgmann's account of the good life and that he tries to lead it in his own way. The same goes for me. I remember the impression that reading *Technology and the Character of Contemporary Life* made on me a decade ago. For the first time, I discovered that many activities – hiking, running, the culture of the table – that were important for me, could be treated in a philosophical study. Borgmann's book made it possible to bring my theoretical and my practical interests into a much closer and more fruitful relation than I ever imagined.

Still, I also agree with Gordon Brittan that in this way you can only make a "hortatory" case for the kinds of activities that I like. I find no way of proposing them as the best engagement for the technological culture we live in. Even a deictic discourse cannot make it plausible in any way that people should choose these kind of focal activities. My Dutch colleague Pieter Tijmes who participated in the workshop out of which grew *Technology and the Good Life?*, delivered there a lecture that was not included in the final collection of articles, titled 'Stop running'. His main point, based on a reading of the philosophy of René Girard and Emmanuel Levinas, was that the practice of running is a solitary activity in which the other person blatantly is absent. As a devoted runner, I have to agree with his analysis. It is indeed hard to imagine that a resurrection of solidarity in our culture can arise from 'the loneliness of the long-distance runner'. Running surely is not the kind of practice that forms the sharp break with the device paradigm that Borgmann claims it to be. It rather, as I shall show later, fits in perfectly with our present day technological culture. In other words, the personal resonance of *Technology and the Character of Contemporary Life*, is too superficial an explanation of the lasting influence and attraction of Borgmann's position. In order to understand this, we have to dig deeper.

As a stepping stone to this deeper and less subjective explanation of the intriguing quality of Borgmann's work, a last personal anecdote may be useful. As noted above, I read *Technology and the Character of Contemporary Life* in 1992. At that time, I was preparing a text for one of the famous house party conversations that Ivan Illich was staging at Penn State University. Together with Barbara Duden, Wolfgang Sachs and Jean Robert, they formed a group of scholars, whose hospitality rightly was famous. I had the honour to have been their guest on earlier occasions. This time the work of Albert Borgmann was to occupy a central place in our conversations. Unfortunately, I did not make it that year. On a hiking trip I fell and my bruised ribs caused me so much pain that I had to cancel the trip. Still the preparation for the meeting had been very stimulating. With the benefit of hindsight, I now can understand why Borgmann's work made such a deep impression on me at that time.

All of my thinking, as well as the philosophy of technology that I developed, was permeated in those years by the influence of Ivan Illich. The Dutch book (1988) and English article (1993) that I wrote all bear his mark. At that time I was still wrestling with Illich's imposing presence. I was looking for empirical tools that would make it possible to connect his views with the lived world of most of my students at Twente University, and it was in Borgmann's work that I found these tools. He stayed close enough to the so-called 'classical' philosophy of technology of which besides Illich,

Heidegger, Mumford and Ellul are the most outstanding representatives, to win me over to his side. On the other hand, he was open enough to the many faceted reality of our technological culture to make him acceptable for many critical students. To say it in the words of the collection of articles that my colleagues and myself dedicated to them, Borgmann was one of those American philosophers of technology that made "the empirical turn." With the benefit of hindsight, I can say also that undoubtedly Borgmann is the one who, when compared with Andrew Feenberg or Don Ihde, stayed most faithful to the classical heritage. This is what once made Borgmann so attractive for me but this is also why I presently have an ambiguous attitude toward Borgmann. Slowly in my work, I came to the conclusion that the rupture with classical philosophy of technology has to be much sharper than Borgmann proposes. In my opinion, only by radically severing most of the threads with our classical heritage, will it be possible to develop the kind of philosophy of technology that the editors of *Technology and the Good Life?* have in mind.

As in all processes of maturing and breaking away, this one is difficult and arduous. Frequently, one is pulled back by the fascinating position that was held. For me, the intriguing quality of Borgmann's work lies in this combination of attraction and the necessity of breaking away. Before illustrating my main point, in relation to his work and that of his commentators, I shall first develop my general argument. In my exposition of this, I draw on the ideas (and partly the text) of the introduction in *American Philosophy of Technology*, the recent book that represents the way we, at our Department of Philosophy at Twente University, try to clear the ground for a renewed philosophy of technology.

THE CLASSICAL APPROACH

The starting point for our approach is Bacon's famous text in *Novum Organon* (CXXIX):

Again, we should notice the force, effect, and consequences of inventions, which are nowhere more conspicuous than in those three which were unknown to the ancients; namely, printing, gunpowder, and the compass. For these three have changed the appearance and state of the whole world: first in literature, then in warfare, and lastly in navigation; and innumerable changes have been thence derived, so that no empire, sect, or star appears to have exercised a greater power and influence on human affairs than these mechanical discoveries.

The so-called classical philosophers of technology who were fond of citing Bacon's remark saw the power of contemporary technology to transform our reality. But they occupied themselves more with the historical and transcendental conditions that made modern technology possible than with the real changes accompanying the development of a technological culture.

As philosophical pioneers, the classical philosophers of technology understood that what Ellul called *l'enjeu du siècle* (the challenge of our century) must be sought in modern technology. In confronting this challenge, they made discoveries and posed questions that marked out the path that would eventually lead to an empirically oriented philosophy of technology. These discoveries include the idea that technology must not be thought of as an applied natural science, that it is less an instrument than a form of life, and that it must be understood as a "system" (in Ellul's word) or as a "megamachine" (Mumford).

The most important discovery of classical philosophy of technology is undoubtedly the absolute novelty, within the history of humanity, of the technological approach to reality. In "the general pattern", the phrase with which the Dutch historian Jan Romein characterizes all pre-modern cultures, an innumerable and endlessly varying set of symbolic-linguistic relations stands at the center of the human condition. For however much a human being in traditional cultures was a *homo faber* – an artisan or mechanic – technological activities were always guided by the symbolic cultural reality that preceded them and in which they were embedded. Modern technology broke down this hierarchy. Bacon and Descartes already called attention to this totally new, no longer symbolically driven approach to reality in a number of well-known passages. In Bacon's *New Atlantis*, the technologists of "Solomon's House" were charged with, among other things, "enlarging of the bounds of Human Empire, to the effecting of all things possible" (Bacon 1859, pg. 156). And Descartes speaks in analogous terms about the possibility of attaining knowledge useful to life and of applying natural phenomena "in all those uses to which they are adapted and thus render ourselves the masters and possessors of nature" (Descartes 1956, pg. 40). This purely technological approach to reality does not recognize any cultural or other constraints that might arise from the human condition.

It is the great merit of the classical philosophy of technology to have perceived this as amounting to a new and radical turning point in the history of humanity. The questions it posed about this development, and its efforts to understand modern technology as "the other" of the symbolic-linguistic approach to reality, continue to guide the philosophy of technology.

Mitcham, the most important historian of the philosophy of technology, postulates that the crucial question that humanity has to answer in relation to technology concerns the choice between two theories of human nature (Mitcham 1980). One theory sees a human being as essentially a *homo faber*, a productive being; the other as a *zoön logon echon*, a *homo loquax*, a being characterized by the linguistic. The classical philosophers of technology have always correctly noted a sharp gap between these two approaches. However, they ultimately shrank back from acknowledging how fundamental this gap was, and sought to place *homo faber* and the technological approach again hierarchically beneath the sway of the linguistic. They thus chose to pursue the second approach and shrank back from the challenge that Bacon and Descartes had been the first to pose.

Heidegger pointedly formulated the challenge posed by technology to philosophy by arguing that "the essence of modern technology is not something human," and that "modern technology" is much more "than a simple manifestation of human culture" (Heidegger 1979, pg. 53). However, after his radical but all-too-brief examination of the "not-human" of technology, Heidegger turned away from it toward language. Only out of language, he claimed, can the essence of technology as the highest danger for human being be thought; only out of it, too, can a possible saving power arise. After Heidegger describes the gap between the linguistic and the technological conceptions, he sees a retreat back into properly linguistic terrain as the only possibility for him as a philosopher. From out of it, he claims, technology is understood, ordered, and bounded.

This Heideggerian move is repeated in its main outlines in the work of all of the classical philosophers of technology. Ellul, who continually thematized the radical and irreducible difference between language and technology, goes so far as to deny the possibility of a technological culture and even of the possibility of a philosophical thinking about technology. Most of the others see this relation as a hierarchical subordination of technology to language. In the name of what Jonas calls "the image of man", technology has to be limited and guided by pre-given cultural values and norms. Arendt dislikes the ambition of technological science "to escape the human condition" instead of being symbolically proportional to it. For her, the great danger is that scientists and technologists "move in a world where speech has lost its power". Technological knowledge and thinking have, in her words, "parted company for good" (Arendt 1958, 3). Her warning seemed to be that if we do not want human beings to become powerless slaves of technology we have to subject technology to language and to thinking. Illich, like Heidegger, sees the greatest danger in computer language, which he considers an Orwellian

newspeak. If human beings are deprived of their natural language, they thereby also lose their essence (Illich and Sanders 1988, 106).

All of these approaches fathom the essence of modern technology more deeply than the customary descriptions that portray technology as an instrument or as one cultural expression among others. At the same time, however, they refrain from addressing concrete technological practices and developments, and fail as well to appreciate how these can rapidly alter the actual normative frameworks of culture. But this is precisely the main issue in the contemporary challenge of technology to philosophical thinking.

UTOPIA AND DYSTOPIA

The main reason for failing to take up this challenge is lying in an image that keeps captive the imagination of the classical philosophy of technology. It is the image of dystopia that was analysed already as an obstacle by Feenberg in his *Critical Theory of Technology*. In my view, the influence of this image is so overwhelming that it is not exaggerated to speak of it as a cultural syndrome, the syndrome of the realised utopia/dystopia as I like to call it (1998).

Because Borgmann falls prey to this image as do a lot of the contributors to *Technology and the Good Life?* it is worthwhile to present a short sketch of this syndrome and to illustrate the influence of it in the work of one of the classical philosophers of technology.

In the twentieth century, it was a commonplace that former utopian dreams of the beginning of Modernity and of the Enlightenment were turning into dystopian nightmares. This feeling perhaps is best expressed in the epigraph of Nicolas Berdiaeff that Aldous Huxley chose for his *Brave New World*. The problem with utopias, says Berdiaeff, is not, as is commonly said, that they are unreal and unrealizable. Quite the contrary. "It is the frightful fact that the modern world is for the first time making it possible that utopias will be realized. The question now is how we might recover and safeguard a society that is less perfect but more free than utopia."

The movement that Berdiaeff and Huxley are making here in which the dream turns into a nightmare and in which utopia reveals itself to be dystopia is central to the twentieth century. It is the same movement that we can discover in the philosophy of the classical philosophers of technology I have mentioned above. The claim of Heidegger and Ellul, of Mumford and Jonas,

and of course, of philosophers like Horkheimer and Adorno, or Marcuse and Foucault (who Feenberg treats), is that we are always-already living in a realised utopia/dystopia. In the last three centuries, westerners have been working diligently to realise the original utopian dreams with which modernity started. At the moment that we seem to have succeeded, their real contents however become visible. When it is realised, 'The New Atlantis' becomes 'Brave New World'.

This is a rather intricate claim, for in a certain way all these thinkers surely are right. Many of the promises of the utopian Enlightenment seem to have been realised indeed. But on a closer look the consequences of this realisation drive often turn out to be quite different from the ones that were expected. And by this I do not mean that they simply become dystopian instead of utopian as all the philosophers that I mentioned earlier, claim. No, it requires much empirical research to find out each time what exactly are these consequences. If we are living in a realised technological utopia, as I agree, the only way to find out how the realised utopian reality 'works', is to look around closely. In *Amérique*, the French philosopher and sociologist Jean Baudrillard describes America as a realised utopia. This does not mean however that the utopian texts that inspired the American dream simply are made true. It does not suffice to just read the texts. You have to find out empirically how they are put into effect, in order to distinguish each time what a realised utopia looks like. This is the reason Baudrillard must travel through the United States with his eyes wide open.

So the point I would like to make is twofold. First, I agree with the authors I mentioned above that we are living in a realised utopia. Many of the traits and of the technological inventions that are described in nearly all the technological utopias are, in fact, realized. The text of *The New Atlantis* ends for instance with a list of technological achievements that rings familiar in our ears. I cite the first four of it:

The prolongation of life

The restitution of youth in some degree

The retardation of age

The mitigation of pain. (Bacon, pg. 167).

Also many of the technological developments that Huxley describes have become reality at the end of twentieth century. Already in his essay 'Brave New World Revisited' of 1959, Huxley could point at many predictions of his novel that had come true. But, and this is my second point, this does not mean that we exactly have reproduced the literary reality of 'Brave New World'. As the French would say, there exists a *décalage*, a split, between the text and the reality that is based on it. And philosophers that are used to the

reading and the interpreting of texts often fail to take notice of this split. They just 'forget' to look at the empirical facts when they claim in a rather simple way that we are living in a realized utopia/dystopia.

As an example of this kind of reading that fails to look at the difference between text and reality, I briefly summarize the last step of one of the most famous arguments that describe the history of the West as the realization of the dreams of a technological utopia: Lewis Mumford's *The Pentagon of Power*. According to Mumford, it all started with Bacon and with the heroes of the scientific revolution and finished with Huxley and present society. "For a summation of all that has been touched on in the concept of a 'New World', of Progress, of Utopia, and of Science Fiction, one must turn to Aldous Huxley. In *Brave New World*, he spoke the final word of the sentence whose opening clause was uttered by Johannes Kepler" (Mumford 1964, pg. 224). Mumford pictures the utopian tradition, as a gigantic snowball rolling downhill since the sixteenth century, gaining momentum, power and mass all the time. This happened so fast that Huxley's novel, that according to Mumford was meant as a satire, became a simple description of reality: "So insistent and rapid have been the technological transformations of the last forty years that soon this book ceased to have any impact as satire: Huxley's seemingly gross caricature had become a reality" (224).

What kind of arguments does Mumford provide in order to bolster his claim that *Brave New World* has ended up in becoming a simple description of our modern technological culture? First, he remarks that the "feelies", a more technological sophisticated form of movies in which touch and smell are also provided, are already in the nineteen- sixties in mass-production for public entertainment. All around himself he sees "the pornographic fair" on television and in the cinema. It is strange, however, that Mumford does not give any reference to actual movies of that time or to the way people experienced television, Mumford doesn't care about empirical facts in this part of the argument. The same goes for his remark that "already today" the governing class in our society, as in *Brave New World*, has "to be infantile whenever possible." However, no example is given of this "duty" of ruling groups. Mumford's next references are in "Brave New World Revisited," a text by Huxley himself. No empirical example outside of this text is presented however. Perhaps this is not necessary because as Mumford states, we have progressed already beyond "Brave New World Revisited." All the arguments that he subsequently gives to prove his point, strangely enough, are intertextual. Nowhere for instance is there a reference to social research about the way Americans were experiencing the rapid technological transformations that indeed were moving in the direction of 'Brave New World'. The only references that Mumford makes are to predictions about the

future by the Rand corporation and by authors like Wiener and McLuhan. So he talks about asteroid colonies in space, underground cities, computers and robots that will take charge of all domestic operations as if all these things really existed instead of only on paper. Even his semi-empirical reference to the first heart-transplant of Dr. Barnard in South Africa doesn't mention the problems and difficulties of organ transplants, but takes up with a prophecy of Barnard that it will become possible now to extend our lives by a century or two.

One further step remains to be taken in the near future according to Mumford. It is already described in *Erewhon*, Samuel Butler's utopian novel of the end of the nineteenth century. The human intelligence will become part of the planetary technological megamachine. "Man's final achievement, at the summit of his progress, would be to create an ineffable electronic God: the deity for whom his chief contemporary prophet, Marshall McLuhan, has already composed an appropriately incoherent and frantically meaningless Holy Writ" (228). Rather cynically, Mumford compares this end of our world with the Buddha's final escape from the Wheel of Life. Our "technological Buddhism" will extinguish forever the forces of life on earth.

These really are all the arguments Mumford gives in his chapter on Huxley to bolster his claim that we literally live in Brave New World. They all come from texts, even from utopian texts out of the nineteenth century. Mumford is not interested in the question of how his compatriots relate to the new technologies that were surrounding them more and more in their daily lives. In other words, the argumentative power of Mumford's claim that we are living in exactly the kind of realized dystopia that Huxley is describing in *Brave New World* adds up to nothing at all. He who contends that certain utopian forecasts are realized by quoting other utopian prophecies, stays a prisoner of his own language like the fly in the glass that Wittgenstein describes. The only way out of this predicament lies in social research concerned with the way people are experiencing our technological culture.

Perhaps this recipe sounds too simple; perhaps my refutation of Mumford's arguments suggests too easily a way out. But, to quote Wittgenstein again, an image may keep us captive. My own research of the last few years suggests this image is so powerful that we should call it a syndrome: in my last book (1998), I treat it as "the syndrome of the realized utopia". I collected quite a stack of articles out of magazines and newspapers in which our present day technological culture is described as a 'Brave New World'. Especially in the field of medical-technology, almost every new development is hailed by authors who are protesting against it (or who just are asking questions about it) as one further step in the direction of Huxley's dystopia.

The strength of the syndrome of the realized utopia is shown by the fact that even a philosopher who turned his attention to the small empirical facts of every day life falls prey to it. In *Surveiller et Punir* ('Discipline and Punish'), Michel Foucault ends up describing our actual society as the realized utopia of the Panopticon of Bentham. In the first and second chapter of the third part of his book, Foucault meticulously analyses all kinds of technological and material arrangements that are constructed for the normalizing and disciplining of subjects. But in the third chapter suddenly his attention shifts to a paraphrase of the text of Bentham's 'Panopticon'. He suggests that all the heterogeneous small devices that he has described are successfully combined in panoptism.. The panoptic modality of power that strives to make everyone visible seems to be omnipresent in modern societies. Foucault seems to take Bentham at his word. And so he depicts our society as a realized dystopia in which it has become impossible to flee the pervading light of the disciplining power that wants to register everything and everybody.

In their turn, the followers of Foucault – and I specify that I used to be one of them – took the master on his word. Vehemently, they protested against the panoptical ways of governing society. In the meantime, nobody asked whether it was true that our whole social reality had become panoptic. To me, this seems not to be the case; we are far from the realized panopticon that Foucault is describing. One counterexample must suffice here.

The last political program of the Dutch Green Left Party was written by some authors that I used to know as Foucault-inspired philosophers and scientists who attacked our panoptical society. They now talk about 'the unknown society' and they complain that the state almost knows nothing of its citizens. They refer to the fact that in our big cities in the Netherlands one third of the inhabitants are living in another place than stated in the official registration. Simple facts like this one effectively undermine the idea that our society has become the realized panopticon that Bentham wanted to construct at the end of the eighteenth century. By the way, Foucault never mentions the fact that in Bentham's time the English Parliament clearly refused to put into practice Bentham's proposal to change the whole country in a panoptical reality.

Let me recapitulate my main points referring to Foucault. I agree with him that in many of our institutions and technical arrangements – hospitals, schools, traffic-systems, shopping malls, and so on – we have installed panoptical devices. It would be silly to deny that in this way we are living in the realized utopia of Jeremy Bentham. At the same time, however I deny – against Foucault – that this means that our whole society has turned into the

Benthamite Panopticon. As the Green Left Program states, the behavior of many citizens is becoming less predictable all the time. In order to find out how people react to the panoptical devices around them, it simply does not suffice to study the texts. The utopian technical arrangements of the authors may be partially realised, but their full intentions certainly are not.

THE DEVICE PARADIGM AS DYSTOPIA

It is clear that the syndrome of the realised utopia/dystopia forms the central structure of Borgmann's philosophy of technology. In chapter eight of *Technology and the Character of Contemporary Life*, the historical promise of technology is pictured as the origin of a new era. As Borgmann rightly points out, it "was first formulated at the very beginning of the Enlightenment" (Borgmann 1987, pg. 35). And like the classical philosophers of technology, he underscores that Bacon and Descartes are the chief initiators of this new era in which, thanks to science and technology, humanity was to attain autonomy, happiness and self-determination. In the same vein, it is Bacon's *New Atlantis* that, according to Borgmann, "represents the most influential picture of the liberated and enriched life in a society based on science and technology" (36).

Also in the 'Reply to my Critics', "the seductive promise" of technology still seems to lie at the origin of our actual predicament: "Could we not say that the technological promise of liberty and prosperity and the growing recognition that it is only realisable through the combination of scientific research and technological devices constitute the origin of it all and the answer to the question why technology developed the way it did?" (Higgs, et al 2000, pg. 346)

Borgmann's answer to this question here is not a full-blown 'yes'. He sees the promise rather as a manifestation than an explanation of the rise of technology. Technology is a new phenomenon in history that traditional cultures "would not have understood or embraced. The rise of the promise is not the transhistorical cause of technology but its first epiphany" (347). These important remarks about the historical analysis in which the "why question" never can be fully answered in my opinion do not change Borgmann's position in a fundamental way. It still is the utopian promise of technology that was first formulated by philosophers like Bacon and Descartes that helps us to understand how technology started to seduce western mankind. The utopias of Bacon and Campanella that Borgmann mentions are the first prefigurations of the kind of society that the western people started to strive for.

The utopian promise plays the same part in Borgmann's philosophy as it does in the classical philosophy of technology. How about its realisation? Does Borgmann agree with his predecessors that the promise turned out to be a deception, that utopia was realized as dystopia? And if so, where do we find this dystopia in his work? The answer is clear again. In his 'Reply to my Critics' Borgmann formulates it in a single sentence: "If the promise of technology sets the stage, the device paradigm is its chief character" (347). In fact, the device paradigm plays the same dystopian part that "the one-dimensional society", "the panoptical society", "the technical system", "the mega-machine", and the "framework" play in the works of Marcuse, Foucault, Ellul, Mumford and Heidegger. It furnishes us with the kind of spectacles that color our technological culture with a specific dystopian light.

If I have to specify the kind of light that the device paradigm sheds in terms of the well-known dystopian examples, it is clear that Huxley's *Brave New World* would be the choice. The kind of life of passive consumption and technologically based happiness that modern citizens live under the device paradigm reminds us strongly of the way Huxley's main characters experience their utopian reality. By the way, in *Technology and the Character of Contemporary Life* Borgmann himself invokes Huxley when he depicts government in a technological society as "a nearly closed system" (p.108). As disengaged citizens and as disengaged consumers of the commodities that the technical devices provide, modern mankind has become captive of a development that was inaugurated by a deceptive promise of utopia. The good life that was promised turns out to be a gilded cage in which we are trapped.

It is hard to estimate how many of the contributors of *Technology and the Good Life?* go along with Borgmann's way of falling back in the syndrome of the realised utopia/dystopia. Many objections are made to his position, but I am afraid that Borgmann is right that most of the authors in some way or another share his main analysis, even if they, like Gordon Brittan, manage to make gaps in the empirical walls that Borgmann builds around his paradigm. Still, a much more empirically informed look could help us in discovering that our technological culture is not the totalitarian and dystopian device paradigm that Borgmann depicts. As far as I see it, it is only in Andrew Feenberg's article that the radical theoretical rupture that we need in the philosophy of technology, is made. Before exploring Feenberg's proposal for a new way of doing philosophy of technology, it is useful to smooth the path by looking at some smaller objections to Borgmann's picture of our present reality as determined by the way the device paradigm works.

In their 'Afterword', Eric Higgs, Andrew Light and David Strong point to Gordon Brittan's article as a sole example where Borgmann is forced to take back an argument he made about the relation between happiness and living in a technological society. They are right in stressing this point, but they fail to recognise the wider importance of the discussion between Brittan and Borgmann on the subject of happiness.

The question of happiness occupies a central place in every utopian/dystopian setting. The main claim of utopia is to make people happy. If this turns out not to be the case, the utopian promise of the good life is falsified. It may even be the other way around; when people are deprived of the striving for the good life, they are trapped in a dystopian society. So Borgmann is quite right to devote a great deal of the eighteenth chapter of *Technology and the Character of Contemporary Life* to the subject of happiness.

From Plato's *Politeia* through More's *Utopia* up till Marcuse's *Eros and Civilization*, the main strategy in utopian literature for realising the promised happiness is to make a distinction between "true" and "false" needs. The claim behind this distinction is that only when people can satisfy their true needs, can they really become happy. If by themselves they experience this in a different way, they are mistaken; they just cannot be really happy. So Marcuse could claim that despite their professed feelings to the contrary, the consumers in the one-dimensional society are unhappy. They didn't even know what real happiness was like, because their true needs were obliterated by capitalist propaganda. Only a revolution and a "pedagogical dictatorship" thereafter could restore the consciousness of their true needs and open the way to real happiness.

Borgmann surely feels the attractiveness of this kind of utopian-inspired argumentation, but he seems to refuse it not only as too easy but also as too slippery. He wants to judge technology by its own standards rather than by other standards. As Brittan states, he wants to rest his case on "professed happiness". When, in other words, people say that they are happy, he is not going to lecture them about their false consciousness and their false needs. Borgmann makes an empirical claim.

In my first reading of *Technology and the Character of Contemporary Life*, I was astonished by this claim which, for instance, states that "people in the technological advanced countries are no happier than those in less-developed ones" (Borgmann 130). At that time, the Dutch "happiness-professor" Ruud Veenhoven was a close colleague of mine. One may have many questions about his kind of large empirical research of data on happiness, but, if you look for the professed happiness of people, it is the best we have. Also

Brittann refers to Veenhoven when he asserts, against Borgmann, that his claims about a steady decline in happiness in the Western World and about the alleged happiness in the third-world countries are nothing but a myth. As the "Afterword" concludes rightly, Borgmann seems to give in on this point.

However, this simply cannot be the case. Borgmann's central argument turns about the deceptive quality of the promise of technology to procure happiness. If this promise simply is realised, the whole structure of his argument should fall down. Neither Borgmann nor his critics seem to draw this conclusion however. This can only mean that, notwithstanding his own statement of the contrary, Borgmann adapts the well-known utopian strategy that I discussed before. According to the kind of criteria that he deems important, people in our technological culture simply cannot be really happy.

A closer reading of (the 18th chapter) of *Technology and the Character of Contemporary Life* confirms this interpretation. This is seen most clearly in his treatment of television that is in line with the remarks of Lewis Mumford that I cited earlier. Television remains, according to him, "the clearest and most attenuated, presentation of the promise of technology" (142). Borgmann is not going to deny that "when 85 million people watch an event such as the Super Bowl...they are enjoying a public and social good." But this does not make his attack on television less vehement. According to him, television suffocates conversation, reduces common meals, supersedes reading, crowds out games, walks, and social occasions. This may be true, but these are clearly not the criteria that people use themselves when watching television. Their professed feelings do not count for Borgmann. So the only way out is to liken the attractiveness that television possesses to addictiveness. By helping or forcing them to overcome their addiction, they finally will be free to discover their real needs and wishes and to become really happy. The structure of this argument is the same as that of Marcuse. Empirical facts simply do not count in his philosophical argumentation.

I do not mean to suggest by this critique that philosophy should become an empirical science, that it should lose its contrafactual force. My main point is that it is Borgmann who partly wants to build his argument on empirical findings. In the discussion about television, he seems to be looking for empirical research that can bolster his conclusions. However, this seeming importance placed on empirical findings is a sham. Borgmann wants to have his cake and eat it too. When the empirical facts seem not to confirm his argument, he simply drops them. To say it in a Popperian way, I cannot think of one empirical finding that might falsify Borgmann's theory of the device-paradigm. The chief attractiveness of his position compared with the classical

philosophy of technology seemed to lie in its openness for the empirical reality. But in point of fact, this openness turns out to be deceptive.

His philosophy of technology gives us mainly a new coat for the old content of the classical approach. For a real innovation, one has to break away from the syndrome of the realised utopia, and really be open to the empirical reality of the technological culture. In an exemplary way, Andrew Feenberg makes a bid for this kind of renewal of the philosophy of technology. In contrast to Borgmann "who continues the earlier interrogation of technology," (Higgs et al, pg. 294) he tries to integrate the results of the recent technology studies in his approach. I am not going to repeat his critique on Heidegger and Borgmann here (for this I refer to his own text and to my article on Feenberg in *American Philosophy of Technology*, that I partly follow here in my text), I only stress the philosophical importance of the instrumentalization theory that he develops. Feenberg makes a distinction between two levels of instrumentalization. The first level corresponds to the perspective of the classical philosophy of technology on modern technology. This level concerns what Feenberg calls the "functional constitution of technical objects and subjects" and addresses the meaning of modern technology apart from all the different social meanings that it might receive. In my vocabulary, this first level of instrumentalization has many features of the idea of the realised utopia that we find in the classical texts. The four moments of this first level — decontextualization, reductionism, autonomization and positioning — all can be found in the dystopian vision on our modern society as a realised utopia.

Classical philosophy of technology, Feenberg claims, is right to critique it, but has gone astray by focusing exclusively on this aspect of technology and failing to move beyond it. For the classical philosophy of technology, this level of instrumentalization is the whole story of modern technology and its development. Modern technology, it claims, is out to reduce our entire world to a single, vast, calculable whole whose elements are one and all at the disposal of technological interventions.

But the more recent and empirically directed studies of technology, Feenberg points out, have allowed us to see that primary instrumentalization is only part of the story of modern technology. Primary instrumentalization provides only the conditions for the existence of contemporary technology. In order for there to be an actual technological system or device, a second level of instrumentalization is necessary. "Technique must be integrated with the natural, technical, and social environments that support its functioning" (308).

On this second level, the empirical findings of the technology studies come to the fore. They show us that the designed technical utopia/dystopia still has to be embedded in social and cultural relations. Users of technology are not passive captives in the maze of the device paradigm, they can appropriate technical instruments and systems in a myriad of creative and innovative ways. Only when one takes into account these last possibilities that following Feenberg's examples are present in our technological culture, is it possible to develop a new philosophy of technology that goes beyond the inheritance of the classical fathers without losing their normative inspiration. For the normative and critical dimension of a new philosophy of technology can be found on the level of secondary instrumentalization where users and designers are challenged to develop technologies that maximize the possibility for individual initiative and happiness.

As a strange conclusion, I suggest that the examples of focal activities that Borgmann offers can illustrate perfectly this secondary level of instrumentalization. Take, for example, the culture of the table. Readers of Don Ihde's *Technology and the Life World* will remember the scene of the family supper in the hills of Tuscany that he depicts. Almost all the ingredients of this highly enjoyable feast – the buildings, the clothes, the food – are in one way or another products of our technological culture. When one changes the spectacles that Borgmann wants his readers to wear, one sees technically mediated activities and products that just were impossible to realise in a traditional culture. The same goes for hiking and running. Both presuppose a modern technological infrastructure, both are making use of many kinds of high-technological devices. Both can better be understood as the appropriation of technology on the second level of instrumentalization than as a focal protest against the first level that Borgmann is describing as the device paradigm.

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