Our moral condition in cyberspace

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Abstract. Some kinds of technological change not only trigger new ethical problems, but also give rise to questions about those very approaches to addressing ethical problems that have been relied upon in the past. Writing in the aftermath of World War II, Hans Jonas called for a new "ethics of responsibility," based on the reasoning that modern technology dramatically divorces our moral condition from the assumptions under which standard ethical theories were first conceived. Can a similar claim be made about the technologies of cyberspace? Do online information technologies so alter our moral condition that standard ethical theories become ineffective in helping us address the moral problems they create? I approach this question from two angles. First, I look at the impact of online information technologies on our powers of causal efficacy. I then go on to consider their impact on self-identity. We have good reasons, I suggest, to be skeptical of any claim that there is a need for a new, cyberspace ethics to address the moral dilemmas arising from these technologies. I conclude by giving a brief sketch of why this suggestion does not imply there is nothing philosophically interesting about the ethical challenges associated with cyberspace.

Key words: cyberspace, ethical theory, responsibility, technological change

While in the course of writing *The Imperative of Responsibility*, Hans Jonas aptly observed that "technology . . . assumes ethical significance by the central place it now occupies in human purpose."[1] However controversial a point this might have been in Jonas's times, it has now become generally accepted, even taken for granted. What now gives us cause for wonder is the question of the *extent* to which technology has an impact on our moral condition. More specifically, in an age that Jonas never envisioned, our own age of computer-mediated communications, electronic data storage, and virtual reality, the troubling question arises: Do these developments have ethical significance to the extent that the moral problems they create cannot adequately be addressed by ordinary morality? Just as Jonas thought the powers of modern technology opened up a new moral condition for us, does our ability to interact with others in cyberspace also pose a new moral condition? Carl Mitcham speculates:

> From mainframe through personal computer to Internet the electronic computer has transformed information and human communication in unanticipated ways that are giving birth to what has been variously termed cyberspace, virtual reality, or hyper-reality. To live in this new milieu, which transforms not just calculations and communica-

tions but the sense of body, self, and culture, it is not clear that ethics in any traditional sense is possible.[2]

While it is tempting to consider cyberspace as opening up an environment that traditional ethics is woefully ill-equipped to handle, I believe it is more plausible to think that it falls short of imposing upon us such a new moral condition. To accept this idea does not mean rejecting the notion that there is anything philosophically interesting about the Internet and the ethical challenges it poses. I will develop this point further toward the end of this paper. But first, let us look at some reasons for the other point of view.

I

Neither the principles of a character-based ethics such as Aristotle's, or Kantian ethics, or consequentialism, or the maxims of Christianity can be binding with regard to the challenges presented by the innovations of modern technology, so Hans Jonas claims. Behind this claim stands Jonas's awareness of the potential not only for these innovations to bring about social change but also to create global harm of such dimensions as to devastate, even eradicate, human

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[1] Hans Jonas, *The Imperative of Responsibility: In Search of an Ethics for the Technological Age* (Chicago: University of Chicago Press, 1984), p. 9.

[2] Carl Mitcham, *Thinking Ethics in Technology: Hennebach Lectures and Papers 1995–1996* (Colorado School of Mines, 1997), p. 90.

life. As he put it, "modern technology has introduced actions of such novel scale, objects, and consequences that the framework of former ethics can no longer contain them."[3] Because of the terrifying broadness of their reach and scope, the powers of modern technology create for us a new moral condition, under which we face novel threats posed by atomic energy, the technologically-driven overconsumption of natural resources, and innovations in bioengineering. To work out a moral framework that would be binding for this condition is as Jonas recognized the distinctive and daunting challenge for moral philosophy, a challenge demanding "the utter resources of ethical thought."[4] Put in a nutshell, "novel powers to act require novel ethical rules."[5]

But why specifically, in *the* technological age (envisioned by Jonas as being the first to deserve this designation, although in all ages humans have used technology to gain an upper hand over nature and to improve the material basis of their condition) do these novel powers to act require novel ethical rules to guide us in their use? Perhaps the most significant reason has to do with the way that modern technology alters the capacities of human agency, understood as causal efficacy, in an extraordinary way. It extends the scope of our powers well beyond the sphere of the here and now that provided the context for traditional ethics, expanding these powers by giving them a global reach. In addition, it places us in the unique and demanding situation of being unable to predict the impacts of these new powers while simultaneously being called upon to focus our reflection on them, for cumulatively they could present a devastating and unavoidable evil for those who come after us. Our novel powers of action also require novel ethical rules because they create new objects of ethical consideration. The essence of our new moral condition as Jonas outlines it lies in the necessity for us to take nature as a whole and future human generations as new objects of moral consideration and responsibility, while at the same time to accept a humbling awareness that our powers of acting upon these objects far outstrip our ability to reasonably predict what the outcomes of our actions might be. This leads to Jonas's "first imperative" of an ethics for a technological age: Do not take any course of action that might have the outcome of jeopardizing the future of humankind as a whole.

How well does this picture of the changed nature of human action fit another technological age defined by the growth of online information technologies? In many ways, the fit seems to be a close one. Perhaps the

most obvious connection lies in the similar impact that information technologies have had upon our powers of action, enhancing these powers by deeply diminishing the constraining forces of space and time. Given a modem, Internet access, and the convenience of Web cams, anyone can see well beyond her immediate surroundings to landscapes in distant places.[6] While most Web cams provide little more than a passive window on the world, more sophisticated Web cam technology extends our powers of causal efficacy by allowing viewers to manipulate the camera in various ways. From my university office, for example, I can "take command" of a Web cam intended to be used for watching the progress of a particular construction site in California, and, with a few clicks of the mouse and a favorable morning light, see a home I lived in for many years come clearly into view. We could multiply endlessly such examples of benign extensions of causal efficacy in cyberspace. But perhaps other, less benign, examples are more relevant to the comparison we are making here between technological ages. The program "Black Orifice 2000," announced at the 1999 hackers convention in Los Vegas, can be sent as an e-mail attachment which, once opened and connected to the hard drive of the host computer, lets the person who sent it have control over the computer when its user is logged on to the Internet.[7] Such examples are also legion. Furthermore, the cumulative effects of decisions made now regarding cyberspace technologies are unknowable. Even more broadly speaking, much as with the technologies about which Jonas was concerned, the growth of these newer technologies well exceeds our ability to know what their impacts will be.

When added up, these reasons tend to support the idea that online information technologies are leading us toward a new moral condition. But at least two other considerations ought to give us pause before we draw this conclusion. For one, there are no clear parallels in cyberspace to the new and distinctive objects of moral responsibility – nature as a whole and future human generations – that Jonas saw thrust upon us by modern technology. An argument could conceivably be made that cyberspace presents new duties and obligations toward our "virtual selves," but lacking any sentience, cognitive capacity, or interests it is hard to see how such selves could command ethical consideration. We also need to keep in mind that while electronic information technologies undeniably open up an almost incomprehensible range for human agency,

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[3] Jonas 1984, p. 6.
[4] Jonas 1984, p. 18.
[5] Jonas 1984, p. 23.

[6] As the word implies, a "Web cam" is a digital video camera that, connected to a personal computer, is used to transmit live pictures over the Internet.
[7] *Wall Street Journal*, 12 July 1999, p. 20.

they simultaneously reinforce more traditional spatial and temporal settings for human action. Internet-based instant messaging would be a case in point. Although the scope of what is "here" has been reduced, and what is "now" has been made more immediate, neither the "here" nor the "now" has been deprived of their significance.

This makes it reasonable to say that at least in some sense if online information technologies change causal efficacy so that space and time are preserved as a context for action, they do not totally rupture the world of pre-modern technology: the world where Jonas found that "ethical significance belonged to the direct dealing of man with man."[8] And if electronic information technologies do have such multiple effects on our powers of action, providing us with a global reach of causal efficacy on the one hand while retaining the significance of the limiting conditions of the here and now on the other, electronic information technologies would not create a moral condition for which "neighbor ethics" – Jonas's term for the collection of conventional ethical principles adequate to guide ethical behavior up until the start of the age of the modern technological age – is no longer useful.

Here one might reasonably respond: Let us grant that Jonas's view does not provide a good foundation for seeing that cyberspace technologies open up a new moral condition for humanity. Still, are not there other ways to look at the contexts under which new moral conditions are created? The thought that our novel powers of action disclose new objects of ethical consideration led Jonas to claim that "novel powers to act require novel ethical rules." Even if we admit that cyberspace does not give rise to novel powers of action that in turn disclose new objects of ethical consideration, are there not other aspects of cyberspace that could be considered in support of the idea that cyberspace requires novel ethical rules? From the perspective of one of these aspects, would the claim that the realm of cyberspace reflects a radically different moral condition for humanity make more sense?

II

One such perspective can be found in the view that cyberspace technologies have a radical impact on the nature of the self. John Perry Barlow offers an explicit expression of this viewpoint in his well-known essay "Coming into the Country."[9] Focusing

directly on the non-physical geography of a world of electronically-represented information: "Imagine discovering a continent so vast that it may have no end to its dimensions. Imagine a new world with more resources than all our future greed might exhaust. . . .", Barlow goes on to say:

> Certainly, the old concepts of property, expression, identity, movement, and context, based as they are on physical manifestation, do not apply in a world where there can be none.

Keeping this emphasis on the non-physical nature of cyberspace in mind, altering Jonas's language slightly leads us to the following statement: "a novel *environment* of action requires novel ethical rules." Much like the assertion that "novel powers of action require novel ethical rules," this claim also depends on an implicit assumption. In this case, the implicit assumption is that the selves who have powers of action within the novel environment of cyberspace are not selves in any physical sense. Rather they are representations: beings without volume, mass, orientation, embodiment, or capacity for suffering. Conventional ethical norms and principles, however, are binding on a self whose physical embodiment is taken for granted. If for example the concept of identity in its traditional meaning becomes problematic in cyberspace, then so would the Kantian notion of autonomy or the idea of an individual right or the Aristotelian sense of virtue: three concepts needing an anchor in the concept of physical self-identity less they dissolve into meaninglessness. The same would hold for the idea of individual responsibility as Jonas understood it, and possibly even for the idea of the moral point of view itself.

If cyberspace technologies undermine the nature of the self interacting in cyberspace by calling its self-identity into question, then, thinking back to the passage from Carl Mitcham quoted near the beginning of this essay, do they not open up a new moral condition in which our established ways of moral reasoning are suspect? Forgetting that "cyberspace" has become a convenient metaphor for talking about a complex set of technological innovations could prompt one to answer yes.[10] Recognizing the dangers of taking a convenient metaphor as a literal expression could lead one to say no. While it is tempting to think of cyberspace as an environment that is entirely new,

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[8] Jonas 1984, p. 4.

[9] John Perry Barlow, "Coming into the Country," in *Communications of the ACM* 34 (1), 19–21.

[10] In describing "cyberspace" as a metaphor, I am thinking of the way the word functions in ordinary usage as a synonym for the Internet or the World Wide Web. For an excellent technical definition of cyberspace, see Luciano Floridi, *Philosophy and Computing: An Introduction* (New York: Routledge, 1999), pp. 61–65.

unprecedented, and radically different from our own familiar physical world, the latter response is more reasonable than the first. Lending credibility to the first response is in part the compelling strength of "cyberspace" as a mental image. The word conjures up a picture of a limitless, seamless, deterritorialized, oceanic-like environment, populated by selves whose identities and boundaries, being fluid and unstable, mirror the place that they inhabit. But this is not all. Not only is "cyberspace" itself a compelling image, it also leads to other expressions and common ways of speaking which in turn reinforce the idea that "cyberspace" is a literal rather than a metaphorical place, separate from the constraints of physical space. For instance, just as we speak about the "spread of urban development" or the "expansion of federally-protected wilderness areas," we refer to the rapid proliferation of URLs or Web addresses as the "growth of cyberspace." Ways of speaking like this contribute to our thinking of cyberspace as a separate space; this, in turn, naturally gives rise to our wondering what it might be like to live in it.

Such an image of cyberspace is powerful but flawed. One difficulty with it is that for any particular Internet user, cyberspace is not experienced as a completely fluid environment, lacking all boundaries. Many "places" within cyberspace have password-protected entry points or are otherwise off limits to some users but not to others. If I do not have my Web browser set to accept cookies sent by e-commerce Web sites, I will be denied the ability to conveniently make purchases at these locations online. Indeed, the use of cookies by Web sites in general serves to organize the flow of HTTP information coming to these sites by "individuating" it by machine user. To think of cyberspace as a region whose parts are seamlessly interconnected in a huge, freely-accessible network is somewhat like having an image of the road system in the United States where the only highways one recognizes are the Federal interstates. But if we accept this image as flawed, and thus take as suspect the idea that cyberspace is an "other" to physical space and consequently a new, ontologically distinctive reality, then we can question the idea that cyberspace presents a "novel environment of action." Once we start questioning this idea, it becomes more probable that we will be able to resist the thought that the development of information technologies leads to the establishment of a new moral condition.

As time goes on, with the use of the Internet for commerce increasing rapidly, and the philosophical reflection on information technologies growing more refined, such resistance, I believe, becomes less diffi-

cult.[11] Two recently published books, although vastly different in their content and approach, are hopeful indicators of this resistance. One is Albert Borgmann's *Holding on to Reality: the Nature of Information at the Turn of the Millennium.* Borgmann makes a case in this book that although we tend to speak about the "information revolution" and the "information age" as though these were new phenomena, every age can to some degree be thought of as an information age, since starting from oral cultures where piles of rocks and bent tree branches were used as signs, in every age language has been used to convey information about reality. In designating our own age as an age of "technological information," Borgmann also sees this information as being characteristically ambiguous and fragile, subject to the obsolescence of the very technologies needed to interpret it.[12] Without going much further into the reasons why he supports this view, one can recognize the doubt it contains of the "other-worldly" view of cyberspace. More explicitly, Borgmann notes:

> . . . technological information is fragile culturally in the way the life of a parasite is. . . .[it] draws much of its life blood from real and traditional culture. Consider the effect that the growing hardware and software power has had on the texture of information technology. . . . Apple's e-world looks like a little town with an info booth, a mail truck, a newsstand, a business and finance plaza, a learning center, etc. . . .
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> A less obvious dependence on actual things and practices is to be found in the cultural sphere of cyberspace. The actual world will always be the

[11] Robert Pitofsky, Chairman of the Federal Trade Commission, stated as part of his testimony in May 2000 before the US Senate's Committee on Commerce, Science and Transportation regarding the fairness of online information practices in e-commerce that figures showed over 60 million Americans, out of the 90 million estimated as using the Internet on a regular basis, made online purchases in the third quarter of 1999.

[12] This observation by Luciano Floridi would appear to support Borgmann's view: "There are many old digital documents that are no longer readable because the corresponding technology (floppy drivers, word-processing software, etc.) is no longer available. . . . Our digital memory seems as volatile as our oral culture, but perhaps even more unstable, as it gives us the opposite impression. . . . A site constantly upgraded is a site without memory of its own past, and the same dynamic that allows one to rewrite a document a thousand times also makes it unlikely that any memory of past versions will survive for future inspection. Every digital document may aspire to such an ahistorical nature. . . . When most of our knowledge is in the hands of this forgetful memory, we may find ourselves imprisoned in a perpetual present" (*Philosophy and Computing*, pp. 83–84.)

school of experience and the storehouse of material for more or less virtual pleasures.[13]

The second book I have in mind is Pierre Lévy's *Becoming Virtual: Reality in the Digital Age*. Lévy follows Borgmann's suit in stepping back to get the advantage of a broad historical perspective in order to address the meaning of "virtuality." Understood as the activity of externalizing what had previously been internalized, "becoming virtual," as Lévy persuasively puts the point, is an activity in which we have been engaged for some time, well before the advent of electronic information technologies. Whenever, for example, we write something down rather than store it in memory, we make virtual what we have remembered. On this account, the "virtual" presents itself not as an alternative to but rather as a modality of the "real." To make something virtual is not to make the physical side of that something disappear; as Levy puts it, "the virtualization of the body is...not a form of disembodiment"[14] Here again the idea of the novelty of the e-environment of cyberspace that Barlow and others have found so striking is given a significant challenge.

While taking a longer view helps in questioning the image of cyberspace as a separate reality, perhaps the experience of time itself, as it in turn shapes our experiences of cyberspace, is an even more effective reminder of the fact that in cyberspace as in everyday physical space, our selves are finite. Reality, to state an obvious point, is structured by both space and time. If by focusing on the "topographical" features of cyberspace we make ourselves think it represents a separate reality, we can perhaps be helped in moving away from that line of thinking by asking ourselves whether Barlow could have written "Coming into the Country" if he had considered what it is to "be" in cyberspace from a temporal standpoint.

In the chapter "Hypertext Heaven" from his book *The Metaphysics of Virtual Reality*, Michael Heim observes how navigating through hypertexts produces the impression of being in paradise. One can move from place to place so quickly that one has the feeling of being caught up in an eternal present. Still, no matter how quickly one can move from place to place, it still takes time to do this, time that can be measured by an ordinary clock. Despite the impression of cyberspace as being a different reality in terms of time as well as space, one cannot, Heim notes, be everywhere at once. Thus, the "human victory over time" that

hypertext appears to bestow is at bottom a "merely symbolic victory."[15] The same is true of the experience of online shopping. Despite popular analysis of this experience as "being in two places at the same time," the fact is that one cannot write a memo and be ordering dog food from a "dot.com" business simultaneously. One has to choose what to do. In facing the necessity of choice, one is reminded of the finitude of one's self. It is with regard to such a self, a finite human being, that ordinary morality has binding force.

III

In Lawrence Tribe's now classic essay, "The Constitution in Cyberspace," he makes the point that the course of time and the strength of traditional institutions tend to prevail over what initially looks like the unprecedented uniqueness of a technological innovation.[16] What in particular gives Tribe hope that the Constitution will be resilient in the face of new technologies is the history of the *Olmstead* decision, the ruling made by the Supreme Court in the 1920s affirming the constitutionality of government wiretapping on the grounds that as wiretapping does not involve a physical search and seizure the 4th Amendment did not apply to this activity. Eventually, of course, this marvelously wrong-headed decision was overturned. I imagine it now strikes us as rather quaint that the federal government once believed privacy protection did not extend to people talking on the telephone, just as it might strike us as quaint that at one point the government could freely censor motion pictures because it understood them to be forms of entertainment rather than expressions of thought.

I can equally imagine a point in the future where it could strike us as quaint that we once had considered cyberspace to be a distinctly unique environment not necessarily governed by ordinary ethics. In the 1970s, the recognition of species, ecosystems and other new objects of moral consideration gave rise to a new, environmental ethics. If what I am suggesting here is correct, there is no need for a new, cyberspace ethics to address the ethical problems arising from new information technologies.

This is not to say that there are no serious ethical challenges arising out of the expansion of the Internet. These challenges, though, do not stem from living *in* cyberspace but rather from living *with* cyberspace. Just how electronic information technologies have so

[13] Albert Borgmann, *Holding On to Reality: The Nature of Information at the Turn of the Millennium* (Chicago, University of Chicago Press: 1999), pp. 198–199.

[14] Pierre Lévy, *Becoming Virtual: Reality in the Digital Age*, trans. Robert Bononno (New York: Plenum Press, 1998), p. 44.

[15] Michael Heim, *The Metaphysics of Virtual Reality* (Oxford: Oxford University Press, 1993), p. 38.

[16] Lawrence Tribe, "The Constitution in Cyberspace," at www.eff.org/pub/Legal/cyber_constitution.paper.

quickly and decisively embedded themselves in so many aspects of our material culture and our daily practices ought to be a major cause for our ethical concern and philosophical attention. This ought to be the case in part because of the numerous actual and potential impacts that these changes have had and can make in the future on the quality of our lives, but only in part. Of even greater concern is the possibility that as these changes continue to take place some of the preconditions for what makes ordinary moral reasoning work well may be threatened. If for example I come to believe I cannot trust in the validity of my senses, I cannot be a very good Aristotelian when it comes to ethical reasoning. What though if in a world increasingly saturated by visual representations one comes to trust these representations more than one's own thinking or the direct evidence of one's own senses? To put the question as bluntly as possible: Is the most significant ethical problem created by the development of cyberspace the problem that this development might increasingly undermine the possibility for ordinary moral reasoning altogether?

Such a drastic outcome is far from certain, and hopefully will never be realized, but it is worth pondering. We have reason to be skeptical of the idea that cyberspace expands our powers of action in an unprecedented way or that cyberspace drastically alters the nature of the self. If cyberspace were to give us new objects of ethical consideration, we would then have reason to believe, following Jonas, that its presence and our interactions within it are ushering us into a new moral condition. The same would follow if cyberspace were a novel environment for human action. If we are to worry about whether the presence of cyberspace creates a new moral condition, we need to look not directly at cyberspace itself, but at the role it is taking on within everyday life. As the novelist William Gibson, the person generally credited with coining the word 'cyberspace', put it: "cyberspace is a metaphor."[17] It is a good reminder that we need to be careful when it comes to cyberspace in figuring out where the real ethical issues lie.[18]

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[17] See an interview with William Gibson at www.josefsson.net/gibson/index.html. While Gibson used the word 'cyberspace' in his 1984 novel *Neuromancer*, it did not have the meaning it carries today of an environment composed entirely of electronically-represented information.

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