

Commentary: Be Careful What You Wish For: Dilemmas of Democracy and Technology

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In a recent episode (5.16) of *The West Wing*, President Bartlett's fictional right-wing antagonists mount an attack on federally funded scientific research into human papillomavirus, which is sexually transmitted. In the corridors of moral panic and reaction, research into STD prevention and treatment is known to undermine the imperative of abstinence, encourage promiscuity, and threaten the patriarchal family. Accordingly, it ought to be proscribed, not facilitated, by public authority. It's not just science: it's politics. In this case, the opportunity for political intervention arises with the discovery that the president's daughter, a scientist, works in the lab conducting the research at public expense. Here, the spectre of nepotism and graft is leveraged in a strategic effort to contest politically what is seen to be an ethically objectionable practice.

In response, the president's senior staff undertake a passionate and principled defence of the purity of science and the need to protect its innocence from politics. They quote Thomas Jefferson: "We are not afraid to follow truth wherever it may lead, nor to tolerate any error so long as reason is left free to combat it." And it is not only science that needs safe harbour from the storms of politics, but technology too. Penicillin, they say, might never have been developed if political considerations had been allowed to intervene. (Penicillin is a technology, not merely a fact.) For good measure, the episode is entitled *Eppur si muove*—"And yet it does move"—Galileo's parting mumble of the truth to power, his last swipe at the irrational Inquisitors whose political opposition to the fact of heliocentricity had led to his condemnation as a heretic. How absurd they are, these modern-day Inquisitors, these Republicans!

Or are they? Few progressive viewers of this parable will have much trouble sorting out which side they are on in its central contest.¹ The bad guys want to politicize science and technology; the good guys must save science and technology from politics. *They* attack the science concerning STDs because they cannot abide the political costs of the knowledge it might place into circulation; *we* must stand firm in our defence of the independence of science and the integrity of its facts. It's not politics: it's the truth (and it's on our side). Picking a team doesn't seem so complicated except that, in this case, *our* team seems ready to

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betray several decades of critical theory and sociology in the area of science and technology studies, and also the ethos of most progressive social movements activated by scientific and technological controversies. In each of these, the case for progressive reform—indeed, for the very *possibility* of reform—has been built on a conviction that science and technology are irreducibly political and thus should be subjected to democratic struggle, judgment, and control. Why, then, as soon as the bad guys start behaving as if they believe this too, do the good guys start behaving as if they don't anymore? Perhaps the difference between left and right on the politics of science and technology is not as simple as it appears on television.

I

This difference comes into sharper focus when viewed through the lens of technology. Technology bears on citizenship in three ways: as a *means* of political practice; as an *object* of political judgment; and as the *setting* in which the character and parameters of politics and citizenship are defined (a setting that is at once material, ontological, epistemological, and cultural). It is in the second respect—technology as an object of political judgment—that the problem identified here is located.

It has become a staple of critical theories of technology to advocate on behalf of its politicization; by this I mean that the case for progressive reform of technology has characteristically been staked to the claim that technological matters are political matters, political in at least two senses. In the first sense, technology is understood to *be* a political *outcome*—the result of actors pursuing their interests in the context of relationships and institutions in and through which power is differentially, and sometimes dynamically, distributed. A technology such as, for example, mobile telephony does not arise as if by magic from the disinterested progress of science, or unambiguously from the heroic spirit of innovation. It emerges from a complex array of social, economic, and political interests in an equally complex social, economic, and political context. Technology is always-already and ever political, and historical. This means that any given technological outcome could have been, and perhaps could still be, other than what it is. In this sense, to politicize technology is to disclose the play of actors, interests, institutions, and power that combine to produce a given technological outcome—a play that tends to be ideologically obscured by the culture of technological societies. This is the understanding of technology-as-political that we owe to social studies of science and technology.

In a second sense, technology is understood to be political because it is implicated in *subsequent* political outcomes. Technology is political because it is, as Andrew Feenberg (1999) has written, “legislative”; because “artifacts,” as Langdon Winner (1986) has taught us, “have politics”; because “code,” as Lawrence Lessig (1999) says, “is law.” Technology is intimately bound up in the establishment and enforcement of prohibitions and permissions, the distribution of power and resources, and the structure of human practices and relationships. In technology, justice is at stake. And it is for this reason that “politicizing” tech-

nology means invoking the normative demand that technology be made the object of political judgment. This demand could be met in a number of ways. We could imagine, for example, the possibility of citizens exercising political judgment in the selection, design, and development of technological artifacts and systems. We could also imagine a role for citizens in the regulation and governance of technologies that are already in place. That we mostly have to *imagine* these possibilities points to a significant democratic deficit in contemporary technological societies: for the most part, judgment in relation to technology is reserved for some constellation of scientists, engineers, capitalists, technocrats, and consumers; very little is left for citizens. As Ursula Franklin (1999) has written, quite radically: “We now have nothing but a bunch of managers who run the country to make it safe for technology” (p. 121). This is why a democratic politics of technology is so often necessarily a politics of social struggle.

II

This deficit provokes the normative demand to make technology an object of political judgment, particularly in erstwhile democratic societies. But the demand is more than simply normative—it is also critical in the most practical sense. For it is widely held by various critics that politicization of technology in this sense will lead to more salutary outcomes—that opening technology to the political judgment of citizens will yield results that are more egalitarian, more just, more humane, more congenial to the environment, and less alienating than those produced when technological decisions are reserved for capitalists, engineers, and technocrats, operating under the cover of reified notions of innovation, progress, and efficiency. Here the point is not just that confining decisions about radio-frequency identification technology to boardrooms and laboratories is normatively suspect but also that, as a *practical* matter, the possibility of qualitatively better outcomes relies on conforming these decisions with the political judgment of citizens.

Something like this refrain has become routine in critical work on the politics of technology. This is certainly true in critical democratic *theories* of technology. Observing that “technology is power in modern societies,” and describing in detail the “legislative authority” of technology, Andrew Feenberg (1999) asks, “If technology is so powerful, why don’t we apply the same democratic standards to it we apply to other political institutions?” (p. 131). Langdon Winner (1995), one of the founding figures in this area, warns: “Because technological things so often become central features in widely shared arrangements and conditions of life in contemporary society, there is an urgent need to think of them in a political light” (p. 67).

This list could go on. It would include the broad range of politically progressive technology critics whose concerns are less theoretical and more immediately practical. It would include, for example, Lawrence Lessig. His work concerns the implications that choices about technological design or “code” have for things such as intellectual property, privacy, and freedom of expression. Who should make these choices? According to Lessig (1999): “Courts are disabled, legisla-

tures pathetic, and code untouchable. That is our present condition” (p. 221). Lessig more or less declares democratic citizenship as the only option.

There is a magic,” he writes, “in a process where reasons count—not where experts rule or where only smart people have the vote, but where power gets set in the face of reason. The magic is in the process where citizens give reasons, and citizens understand that power is constrained by these reasons. . . . Where through deliberation and understanding, and a process of community, judgments get made about how to go on. (p. 228)

David Lyon (2003) reaches a similar point in his analysis of contemporary surveillance and the various threats it poses for privacy, liberty, equality, and justice. Lyon concludes his recent book, *Surveillance after September 11*, with a passionate call for “technological citizenship . . . where the responsibilities and the privileges—and perhaps rights—associated with living in a world suffused with technology are a matter for ethical reflection and political practice” (p. 160). The list of those who cast political judgment as the best hope for progressive technological outcomes would also include most of those activist and non-governmental organizations who now press the case for wresting control over decisions about bio-energy, and information technology from the instrumental logic of the corporations. It would also include me: in my recent volume for the *Canadian Democratic Audit* (Barney, 2005), I devote at least two chapters to arguing that ICT development in Canada has largely been exempt from democratic political scrutiny and to making the case for institutionalized treatment of technology as an object of political judgment—a case that primarily amounts to calling for an end to the private/market regulation of technology endorsed by neo-liberalism and a return to public regulation through democratically transparent and accountable state agencies.

III

So we all agree—which is troubling when we consider some “other” recent expressions of this consensus.² Here’s one: “Countries must regulate the development and use of technology politically, setting up institutions that will discriminate between those technological advances that promote human flourishing, and those that pose a threat to human dignity and well being” (p. 182). That is Francis Fukuyama (2002a)—famous for declaring a decade or so ago that history had ended with the triumph of American liberal capitalism—in his book *Our Post-human Future: Consequences of the Biotechnology Revolution*. In a related piece, Fukuyama (2002b) recommends that “we use the power of the state to regulate the way in which technology is developed and deployed . . .” (p. 31). Here is another: “If we have the political will, American institutions offer us the political opportunities to redirect, regulate and slow down the technological juggernaut”(Kass 2002, p. 51). That’s Leon Kass, appointed by George W. Bush—much to the delight of neo-conservative fundamentalists—as chair of the President’s Council on Bioethics. Some may recall Kass for his book *The Hungry Soul* (1994), in which he characterized public ice-cream licking as “dog-like feeding [that] ought to be kept from public view” (p. 149), or for his view that women in their 20s

should be at home having and raising children instead of selfishly pursuing their careers. He has also written of the need to “strike a blow for the human control of the technological project, for wisdom, prudence, and human dignity” (quoted in Tabachnick, 2005, p. 35) and, in his preface to the report of the President’s Council on Bioethics (2003), called for an “ongoing national discussion” (n.p.) on biotechnology, lest decisions in this area be left to the market and medical or scientific experts.

In fact, arguments about the need to exercise political control over science and technology have been regularly used to justify the Bush administration’s unprecedented intervention in the research and programs sponsored by agencies such as the National Institutes of Health, the Centers for Disease Control and Prevention, the Food and Drug Administration, and the Environmental Protection Agency, typically to curtail activity the administration and its constituency find *politically* suspect, such as research into contraception and STD prevention, and into the causes and effects of global warming, to name but two. And, lest we think this is an American phenomenon, it should be pointed out that Canada’s own Preston Manning (2004), former leader of the right-wing Reform and Alliance parties, has been active on the public lecture circuit making the case for the politicization of Canadian science and technology policy, particularly in the areas of biotechnology, genetics, and assisted human reproduction.

IV

So what’s the problem? Let’s just say that it is mildly alarming to go to bed with Langdon Winner, Andrew Feenberg, and Lawrence Lessig, only to wake up beside Preston Manning, Francis Fukuyama, and the Bush administration. Progressive critics of technology have long called for the politicization of technology—for “human control of the technological project, for wisdom, prudence, and human dignity” to borrow Kass’ phrasing quoted above—and neo-conservatives appear ready to answer that call with a resounding “us too!” It is almost enough to provoke nostalgia for the good old days when everybody believed that science was objective, and innovation innocent. This is precisely the comfortable option taken by President Bartlett’s counsellors in the parable of *The West Wing*. But nostalgia is not a viable political strategy, especially not when it thoughtlessly undermines our own hard-won convictions for the sake of convenience. Instead, we need to think through what, if anything, distinguishes the progressive case for the politicization of technology from the reactionary one.

We could say that *we* are interested in politicizing *technology* while *they* are really interested in shutting down *science*, at least in so far as its conflicts with fundamentalist religious convictions or the interests of the petrochemical industry, but I am not sure anybody on either side of this divide believes that the scientific and technological enterprises can be effectively separated. Kass (2002), for example, writes that “we must think of modern science and modern technology as a single, integrated phenomenon” (p. 36), a position that is also foundational to most versions of critical theory since the Frankfurt School, many of which otherwise exhibit serious disagreements. And social constructionist approaches to

social studies of science have more or less paid to the notion that science is not a political phenomenon and practice. In any case, it is far from clear that a thoroughgoing democratic politics has anything to gain from giving science a free pass.

We could say that while *we* wish to bring politics to bear on technological devices, systems, and society quite *comprehensively*, *they* are more *selective* in their targets. They may be ready to subject things like reproductive technology to political judgment and control but not so keen to open political discussion on the development of space-borne weapons, or to exert political regulation on telecommunication technologies and the markets in which they circulate. It is true that they are selective in their targets, but progressives should not be so quick to congratulate themselves in this respect. Most of us would readily campaign for politicization of nuclear energy and genetically modified foods, but few would be happy at the prospect of ongoing politicization of contraceptive and prophylactic technologies. Do we really want to engage in an ongoing political contest over access to the technologies that make abortion safe for women or over availability of the morning-after pill? Or do we prefer to shield these technologies from democratic contestation by anti-feminists, by securing them within the de-politicizing shelter of inviolable rights?³

Perhaps it is a difference in the respective *conceptions* of politics. Theirs is a hybrid of phony aristocracy and the worst sort of populism: a dangerous (but, alas, historically winning) combination of self-declared wise-men and a self-interested mass audience that is easily distracted or motivated. Ours tends to be a more genuinely participatory, inclusive, egalitarian, and deliberative brand of politics: an often laborious and lengthy process of dialogue, debate, and struggle between citizens who take themselves and each other seriously. This is a significant difference between their politics of technology and ours, despite the fact that both typically claim the mantle of democracy. Nevertheless, there may be an even more fundamental distinction between these two positions, one that turns not on their differing conceptions of politics, but rather on their respective understandings of the character of technology as a political issue.

V

On the progressive side, the imagination of technology as a political issue is located in what Jürgen Habermas (2003) calls the *moral* realm—the realm in which we engage in rational deliberation about normative questions of justice, against the backdrop of a shared set of basic values. So, in this sense, opening technology to political judgment means public dialogue amongst formal equals, over technological controversies (such as whether the use of RFID technology should be regulated) against the background of generally shared values (such as privacy, security, convenience, well-being, et cetera). This is basically what progressive critics have in mind for a politics of technology—a politics of communicative action that is currently frustrated by the reservation of technological decision-making and governance for capitalists, engineers, and technocrats.

For conservatives, technology is not just an issue in the moral realm, but more precisely an issue in what Habermas (2003) calls the *ethical* realm.⁴ It concerns basic value commitments and is bound up not only with justice, but also with the very substance of what it means, to an individual or group, to live a good life. In this view, the politics of genetic technology is not only about the distribution of opportunities and resources in relation to widely-shared convictions; it is a controversy in which those convictions *themselves* are at stake. Such ethical matters are traditionally thought by liberals to be private and personal rather than public and political. Conservative antagonists of technology want specifically to politicize the ethics of technology, to raise the question of the relationship between technology and the good life to a political level.

Progressive critics (most of whom are liberals deep down⁵) are generally not prepared to engage in the debate over technology on this level. In the first place, the fact of cultural pluralism recommends strongly against engagement in public contests that seek to specify the substantive content of the good life and act on those specifications. Most progressives/liberals feel the risks of the perfectionist tendency in ethical debates over the substance of a good life—risks that are said to include the subordination of both individual and group-based differences—are too high to bear in pluralistic societies. (The theocratic posture of the Bush administration in the United States has brought this risk into sharper focus.) Secondly, most contemporary technology criticism has been forged in the post-metaphysical fire of social constructionism and is deeply suspicious of the essentialist tone that rings in talk of the good life. If the price of locating technological controversies in the ethical realm is a critical vocabulary that even hints at transhistorical and transcultural human goods, it is too high a price to pay for many progressive technology critics. As a result, engagement with questions of technology as ethical questions about the good life—ethical questions that ought to be addressed publicly and politically—is something that most progressive critics of technology studiously avoid.⁶

And so, while the conservatives and the progressives both talk about politicizing technology, they are talking about radically different things, and they certainly are not talking to each other. Though the conservative and progressive arguments for the politicization of technology might seem superficially similar, there is a profound difference between them: conservatives want to talk about the good life, while progressives want to talk about justice. Progressives need not worry that their case for subjecting technology to political judgment is too close to the case made by conservatives. They might, however, consider the cost of refusing to join conservatives in addressing the question of science and technology in the ethical sphere, as a political question concerning not only justice but also the good life.

It is not simply obvious that matters of technology—whether we are talking about mobile computing or genetic manipulation—do not bear in any fundamental way on the question of the good life, or on the prospects for living well as ethical persons, and can be therefore reserved for the moral realm. And while the

risks of politicizing ethical questions are real, it is not clear that they necessarily outweigh those of insulating the ethical dimensions of technology from political judgment, and from the struggles and deliberation that ideally precede such judgment. Shrinking from ethical contests over technology is not even necessarily conducive to pluralism; by talking ourselves out of the politics of technology on the ethical level, we leave the monistic account of the good life that *is* technology uncontested or, what is perhaps worse, limited only by the “values” that animate the forces of reaction.

This may be too high a political price to pay for the comforts of liberal neutrality, anti-essentialism, and communicative action relieved of ontological preoccupations. Waking up with the neo-conservatives is reason enough to rethink one’s convictions, but exempting technology from political contestation and judgment is simply not an option—no matter what they say on *The West Wing*—given the central position it occupies in contemporary social life. One option is to insist that the politics of technology should be separated from ethical propositions regarding the good life, and to contest technological controversies solely as matters of justice, but this option is unavailable to anyone who holds that technology *is* a proposition about the good life. A second option recognizes the ethical dimensions of technology and dares to politicize them, and calls upon us to take up the political struggle over which *other* propositions should be brought to bear on the direction and limitation of technology. The first option sits quite easily within the self-understanding of contemporary progressive politics of technology. The second is less comfortable, as it brings us onto terrain already occupied by conservatives, though, arguably, this is precisely where the fight needs to be joined.

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Notes

1. The term “progressive” will be used throughout as a placeholder for anyone who occupies a spot on the left side of the political spectrum. I would put myself in this category and so will sometimes refer to this position in terms such as “us,” “we,” and “ours.”
2. The conservative rhetoric discussed below is systematically presented in David Tabachnick’s (2005) excellent essay on the philosophical incoherence of the Right’s anti-science politics. It should be pointed out that the argument advanced below might also be vulnerable to Tabachnick’s critique, but this is a separate matter.
3. This is a contentious claim. In conditions where rights are unrecognized or systematically denied, the struggle to secure them is deeply political and intensely politicizing. However, in situations where rights are secure, they shield that which they protect—reproductive freedom and its enabling technologies, for example—from violation for purposes, and by authorities, that are *merely* political. This is why whenever an established right is authoritatively abrogated, the practice or principle it formerly protected is, for better or for worse, reopened for political consideration and contest.

4. Habermas' terminology is adopted here with certain reservations. While the distinction between controversies over what is just in light of a shared set of basic commitments and controversies over those basic commitments themselves is a useful one, assigning the label "moral" to the former category and "ethical" to the latter may be unnecessarily misleading given commonplace usage of these terms. More seriously, I am uneasy about endorsing Habermas' use of the language of "values" to characterize what is at stake in the ethical realm, as if the substance of the good life can be reduced without harm to a question of competing values. On the poverty of "values" as a political vocabulary, see Edward Andrew (1995).
5. I say this because most contemporary progressives are deeply committed to the liberal principles of individual liberty and equality, but are concerned that the political-economic arrangements of contemporary capitalist societies fail to deliver on these principles.
6. It is interesting to note that, on the issue of genetic technology, Habermas (2003) is prepared to treat an ethical controversy in the public, political realm, as if it were a moral controversy arising against a backdrop of shared commitments. He makes this exception on the grounds that the ethical implications of genetic technology concern the human race as such, and not just one cultural group. Genetic engineering potentially alters the "ethical self-understanding of the species, which is shared by all moral persons" (p. 40) and so should be confronted in the public realm. However, Habermas' argument for "publicizing" technology as an ethical issue is somewhat hedged: his priority is to legitimize the public voice of philosophy in this particular controversy, not to advance democratic politics; and even this move is not extended to all forms of technology, only genetic engineering.

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