Chun, Wendy Hui Kyong. "Controlling Code." In Control and Freedom: Power and Paranoia in the Age of Fi ber Optics. Cambridge, MA: MIT Press, 2006, pp. 66-72.

Controlling Code

Those against the increasing privatization of the Internet have stressed the significance of its end-to-end design and free software core. Larry Lessig, in particular, has stressed that "code is law"—decisions that once took place at the level of legislation are now taking place at the level of code. Architecture is therefore politics—the early pioneers, who conflated the Internet with freedom and democracy, Lessig argues, took its code and architecture for granted. Yet code, contrary to Lessig's assertion, is not law.[58] It is better than law; it is what lawyers have always dreamed the law to be: an inhumanly perfect "performative" uttered by no one. Unlike any other law or performative utterance, code almost always does what it says because it needs no human acknowledgment (Lessig himself, while declaring code is law, claims that code has supplanted law: code, not law,

57. Mark Godwin, quoted on "Cybersex: Policing Pornography on the Internet," *ABC Nightline*, June 27, 1995.

58. Lawrence Lessig, *Code: And Other Laws of Cyberspace* (New York: Basic Books, 1999), 6.

increasingly "solves" social problems).[59] Moreover, whereas a law's effectiveness depends on enforcement (self- or otherwise), code's enforcement stems from itself. Code can be sidestepped or broken, but only via technological savvy. Code's colonization of the political makes it a battleground for democracy. According to Lessig, the Internet both weakens governmental sovereignty and strengthens it through governmental collusion with corporations: "The invisible hand of cyberspace is building an architecture that is quite the opposite of what it was at cyberspace's birth. The invisible hand, through commerce, is constructing an architecture that perfects control—an architecture that makes possible highly efficient regulation."[60] The commercialization of the Internet, its transformation into a "secure" marketplace, facilitates control and thus regulation: the interests of commerce and governmental regulation coincide perfectly, making the dispute between commercial organizations and the U.S. legislature over the CDA seem a screen for a more profound collusion.

For Lessig, perfect control signals the demise of democracy: corporations or governmental powers can usurp public decision making through code, thereby rendering cyberspace less free than the "real world." In order to ensure democracy, code must not be owned. Lessig contends, "If the code of cyberspace is owned (in a sense that I describe in this book), it can be controlled; if it is not owned, control is much more difficult. The lack of ownership, the absence of property, the inability to direct how ideas will be used—in a word, the presence of a commons—is key to limiting, or checking, certain forms of governmental control."[61] In this argument, Lessig conflates corporate with governmental regulation, transparency with publicity, and cyberspace with market capitalism, rendering invisible the specific decisions that led to the "ownership" of code. To

59. More important, code can be owned and parsed in a manner unprecedented for any other language product. Although one can produce things with (normal) languages, which can be owned for a period of time, no one "owns" the language per se, and your creations need to be readable in order to run (even to talk about language "products" reveals the extent to which computer and biological codes have transformed language).

60. Lessig, *Code*, 6.

61. Ibid., 7.

Lessig, code "not owned" is code protected by GNU's Not Unix (GNU) public license or open source. If a program uses the GNU public license (also known as copyleft), others are free to use this code, but they too must make their source code available. Transparency, not actual ownership of either the code or the system it runs on, thus defines "lack of ownership," and transparency grounds political action. "Only when regulation is transparent is a political response possible," contends Lessig.[62] Transparency also guarantees democracy. Open source is "democracy brought to code," Lessig states, because "an open source code system can't get too far from the will of the users without creating an important incentive among some users to push the project a different way. And this in turn means the platform cannot act strategically against its own."[63] "Open source" becomes a (liberal) check to corporate and governmental power, a means by which, for Lessig, "we build a world where freedom can flourish not by removing from society any self-conscious control; we build a world where freedom can flourish by setting it in a place where a particular kind of self-conscious control survives."[64] With Jeremy Bentham–esque optimism, Lessig assumes that readability ensures democracy (those who can read the code will read it and a "good" consensus will emerge) and that open means public, open means common. Also like Bentham, Lessig makes self-conscious control—the internalization of control—the goal (although unlike Bentham, self-conscious control leads to greater freedom). No matter how transparent a system is, though, an invisible hand (of cyberspace) cannot be seen—and this paradox, stemming from Lessig's conflation of cyberspace and marketplace, reveals his project's limits.

Lessig's second book, *The Future of Ideas*, stresses the importance of TCP/IP rather than software applications (the previous quotations on open source are taken from *The Future*). Internet protocols "embedded principles in the Net," writes Lessig, "constructed an innovation commons at the code layer. Through running on other people's property, this com-

62. Ibid., 181.

63. Lawrence Lessig, *The Future of Ideas: The Fate of the Commons in a Connected World* (New York: Random House, 2001), 68.

64. Ibid., 5.

mons invited anyone to innovate and provide content for this space. It was a common market of innovation, protected by an architecture that forbade discrimination."[65] To make this argument—that TCP/IP opened (then) state-owned space, and ensured democratic access to the backbone and its source code—Lessig erases other key issues, such as the influence of academia's "open" structure of knowledge on Internet development, the relatively novel concept of software as a commodity, and restricted access to "end machines" (commercial gateways may make discriminatory routing decisions, but they also enable greater access). Lessig, like John Stuart Mill, also assumes control and innovation are inversely correlated:

> The architecture of the original Internet minimized the opportunity for control, and that environment of minimal control encourages innovation. In this sense the argument is linked to an argument about the source of liberty on the original Internet. At its birth, the Internet gave individuals great freedom of speech and privacy. This was because it was hard, under its original design, for behavior on the Net to be monitored or controlled. And the consequence of its being hard was that control was rarely exercised. Freedom was purchased by the high price of control, just as innovation is assured by the high prices of control.[66]

According to Lessig, content and code are parallel systems: the increasing commercialization of networks endangers freedom at both levels by implementing easier control mechanisms and rendering the architecture less democratic (but again, the commercialization of the Internet has led to more democratic access). Remarkably, the assumption that control was rarely exercised because it was hard to do so and that control is antithetical to freedom and innovation overlooks the very operations of TCP/IP (Transmission *Control* Protocol/Internet Protocol).

Alex Galloway, in his analysis of TCP/IP and the bureaucratic structures supporting protocol development, reveals this glaring paradox: "The exact opposite of freedom, that is control, has been the outcome of the last forty years of developments in networked communications. The founding

65. Ibid., 85.

66. Ibid., 140.

principle of the net is control, not freedom. Control has existed from the beginning."[67] Significantly, for Galloway, protological control is "a different type of control than we are used to seeing. It is a type of control based in openness, inclusion, universalism, and flexibility. It is control borne from high degrees of technical (organization), no this or that limitation on individual freedom or decision making (fascism)." And so, a "generative contradiction" produces open technology: "In order for protocol to enable radically distributed communications between autonomous entities, it must employ a strategy of universalization, and of homogeneity. It must be anti-diversity. It must promote standardization in order to enable openness," Galloway remarks.[68] Computer protocols do not tolerate deviations- -if not followed exactly, compatibility problems will (and often do) occur. If protocols are "antidiversity" because they rely on a common language, however, what entity/system is not antidiversity? What do we mean by diversity? Also, is freedom the exact opposite of control? What precisely is the relationship between medium and content?

Galloway does not simply condemn protological logic, for "it is *through* protocol that we must guide our efforts, not against it."[69] Resistance, like control, is generated from *within* the protological field. He thus turns to tactical media as an effective means of exploiting the "flaws in protological and proprietary command and control, not to destroy technology, but to sculpt protocol and make it better suited to people's real desires. Resistances are no longer marginal, but active in the center of a society that opens up in networks."[70] Galloway's insistence that resistance

67. Alex Galloway, "Institutionalization of Computer Protocols," *nettime*, ⟨http://amsterdam.nettime.org/Lists-Archives/nettime-l-0301/msg00052.html⟩ (accessed May 1, 2004). Galloway's critique overlooks Lessig's contention that freedom comes from self-conscious control rather than total lack of it, however this contention does get muted in Lessig's second book.

68. Ibid.

69. Alex Galloway, "Protocol, or, How Control Exists after Decentralization," *Rethinking Marxism* 13, nos. 3/4 (Fall/Winter 2001), 88.

70. Alex Galloway, "Tactical Media and Conflicting Diagrams," *nettime*, ⟨http://amsterdam.nettime.org/Lists-Archives/nettime-1-0301/msg00047.html⟩ (accessed September 13, 2003).

and control constitute, rather than limit, the protological system is crucial, but his notion of sculpting protocol to people's real desires is problematic. As I discuss in more detail in chapters 3 and 5, the relation between technology and desire is highly mediated and slightly paranoid: "people's desires" too are generated by the system. More important, control and freedom are not opposites but different sides of the same coin: just as discipline served as a grid on which liberty was established, control is the matrix that enables freedom as openness. There is, in this sense, no paradox, but there is still a question of freedom—of a rigorous sense of freedom, of freedom, as Jean-Luc Nancy argues, as an experience. In contrast to Lessig and Bentham, publicity, understood as open publication, is not democracy. (Bentham viewed open publication as key to the Panopticon, the disciplinary mechanism par excellence: the only way a Panopticon owner could lose his franchise was by failing to publish his records.) Jodi Dean in *Publicity's Secret: How Technoculture Capitalizes on Democracy* maintains that electronic versions of publicity undermine democracy by magnifying distrust and antagonism rather than rational public discourse. Publicity, she asserts, is the ideology of technoculture; it creates conspiracy theorists and celebrity subjects.

Openness may itself not be democracy, but the openness enabled by communications protocols can point toward this other freedom. Free software, for instance, is not autonomous but creates a structure of sharing. Open source, with its use of an extended creator base made possible by the Internet, pushes this structure further. As well, open source and free software, by belonging to no one, makes democratic struggle possible, makes their code functionally analogous to a public place. As elaborated in more detail in chapter 3, at the heart of democracy lies an empty space: Claude Lefort in *Democracy and Political Theory* argues that because public space belongs by rights to *no one*, because this space cannot be conflated with the majority opinion that may emerge from it, it guarantees democracy.[71] If Lefort's main concern, writing in the 1980s, was totalitarianism and the welfare state, I am now, writing at the beginning of the new millennium, concerned with the increasing role of private corporations in

71. See Claude Lefort, *Democracy and Political Theory*, trans. David Macey (Minneapolis: Minnesota University Press, 1988), 41.

"public space" and language. Lefort and Thomas Keenan citing Lefort leave their readers with a dangling promise on which they do not deliver —namely, that they will return to the fact that specific individuals or corporations can own public space. This question is even more pressing now, because the problem facing us at present is, What happens when the entity seeming to enforce equality and equal rights is the private corporation instead of the state? What happens when democratic disincorporation stems from consumption rather than voting—when equal rights seem mainly to guarantee access to buying, and when, at the same time, bigoted groups such as the Boy Scouts of America are sanctioned as serving public interest? This is not to say that publicity is not possible within privately "owned" spaces. This means, however, that we need to address the relationship between private/public/political and the transformation of the private/public binary to an open/closed one. Shopping malls and city parks may both be public (or perhaps more properly open) spaces, but they are not equal. Open or free software may be nice, but they leave uninterrogated the question of proprietary hardware and structures of inequality that make it impossible for a good number of workers who create hardware to access software, open or not.

Crucially, both free or open source software are not inherently democratic, representative or otherwise. Although these movements and their products are theoretically open to all, participation depends on education, financial security, leisure time, and so forth, and the final decisions on which revisions get included often lie with one person. Linus Torvalds, who makes the final decisions regarding Linux, is arguably a benevolent dictator, and Richard Stallman, the free software guru, is not known for his democratic tendencies. Still, these movements are not inherently undemocratic either—one can easily imagine them operating under a structure of representative or even Athenian democracy (without the exclusion of women and slaves). The Internet opens up possibilities for reimagining democracy and democratic structures. What is crucial, though, is that the "voluntarism" driving these movements and the division of labor that makes them possible be interrogated.

The Power of Touch

Reducing the Internet to a technical protocol and stressing high-tech Orientalism as a tool for navigation elides the importance of racial and gender