

LECTURE: Foucault in Cyberspace⁺

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I. INTRODUCTION

I'm going to talk today about the Internet in relation to political theory and, in particular, to libertarianism.

Anyone who has spent time on the Net or who has read the writings of Internet gurus knows that the default set of political assumptions on the Internet is a libertarian set of arguments. In fact, if you had to come up with a technology-or more expansively, a space-that makes libertarianism attractive, it would be the Internet. The Net mirrors some of the more popular libertarian images of the good society. The Net was formed through a relatively decentralized and anarchic process. The state certainly played a huge role in getting the ball rolling by funding research, setting up precursor networks, funding the creation of open standards, and so on. But in spite, or perhaps because, of this state involvement, the Internet developed without a single master plan or scheme. Thus, the way in which the Internet was formed can be seen as an example of the kind of spontaneous, decentralized ordering that is very attractive to libertarian thinking.

Indeed this decentralized process of development is one of the reasons why the term "information superhighway" is so inappropriate. The "information superhighway" conjures up a structured world, the kind of Eisenhower world in which the state designs and builds the entire system according to a central master plan. This image is a complete contrast to the decentralized character of the Net and, for libertarians, the unplanned organic nature of its growth is precisely the key to its success.

There are other reasons why the Net is implicitly hospitable to the ideas of libertarianism. People think of the Internet mainly in relation to speech, and speech is the most essential aspect of libertarianism for most people. Even those who are not libertarian in other aspects of their lives will see that speech is an area where libertarian ideas have particular bite.

So much for the reasons why the Net is hospitable to libertarianism. What about the problems with libertarian ideas? Stepping back from the Net for a moment, we know that one of libertarianism's major conceptual weaknesses as a political theory is that it cannot provide a coherent definition of harm. If one basic tenet of libertarianism is that my freedom should not be impaired until I impose harm on someone else, there obviously needs to be some coherent definition of what counts as a harm. Otherwise, the principle would be devoid of meaning.

What concept of harm makes sense then? If we define harm as merely whatever the law says is a "harm," one would be free to do only what the law says you could do. Yet this definition of harm would render libertarianism an empty ideal. If the sovereign wants to prohibit you from homosexual

⁺ © James Boyle 1999. Edited transcript of remarks delivered to the Yale Law and Technology Society on January 27, 1999. This speech is a version of the ideas initially presented in my article, *Foucault in Cyberspace: Surveillance, Sovereignty, and Hardwired Censors*, 66 U. CIN. L. REV. 177 (1997), which I am now developing as part of a book called *Net Total: Law, Politics and Property in Cyberspace*. I am grateful to the students of the Yale Law School, the members of the Law and Technology Society, and the editors of the Yale Symposium on Law and Technology for their thoughtful comments.

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love, driving without a seatbelt, or listening to the collected works of Donna Summer, it merely defines these as “harms” and then it may regulate you as it wishes. Defining harm through a notion of natural rights offers some possibilities, but it also offers even greater problems.

Without getting into the rich and complex academic literature on this point, it is clear that (1) the search for a harm principle is a difficult one but that (2) in the realm of speech and the exchange of ideas, the problem of harm becomes much less salient for many people. (Though, to be sure, there have been powerful criticisms of this perspective in recent years.) The dominant vision is that no harm is imposed by speech. People say, “Sticks and stones will break my bones, but words-or, in this case, bytes-will never hurt me.” The Net is not only an attractive place for libertarianism because of its structure, it is a place where the conceptual problem with libertarianism-the need to define harm-is much less obvious.

There are other reasons that the Net is hospitable to libertarians. In the ideal libertarian world, we have to allow for the possibility of easy “exit” so that citizens can leave communities which they find oppressive or simply annoying. That is, if you do not like the rules we set up in our community, then you can leave and go somewhere else. In one sense, this harkens back to the work of social contract theorists such as Locke; Locke tells those who do not like the social contract that they can leave and go to the savage wilds of America. In the real world, of course, to “exit” in this way is frequently impossible and always costly. On the Net, exit seems like more of a real possibility. If you do not like this virtual community, you actually can leave and go to the savage wilds of America Online. In other words, you can pick your community and its rules. Instead of overarchingly coercive rules posed from above, the rules of a community are set by the community’s own members.

For all of these reasons, then, the Net seems like a fertile place for libertarian ideas to go-and indeed they have, to the point that libertarians feel a real sense of resentment at the notion that meatspace governments would dare to attempt to impose their laws on the virtual world. John Perry Barlow, co-founder of the Electronic Frontier Foundation and a consultant in the areas of free speech and the Internet, captured this feeling in his Declaration of Independence of Cyberspace:

Governments of the industrial world, you weary giants of flesh and steel. I come from cyberspace, the new home of mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us; you have no sovereignty where we gather. We have no elected government, nor are we likely to have one. So I address you with no greater authority than that with which liberty itself always speaks. I declare the global social space we are building to be naturally independent to the tyrannies you seek to impose on us. You have no moral right to rule us, nor do you possess any methods of enforcement we have reason to fear.¹

So far I have argued that there is a predominantly libertarian slant to political discussion on, and about, the Net. This libertarian slant comes, in part, from the notion that states are helpless to

¹ John Barlow, A Cyberspace Independence Declaration (visited Apr. 24, 1999).

regulate the Net and, in part, from a set of assumptions that the Net is both naturally and structurally a hospitable place for libertarian ideals. Today I want to make the unorthodox claim that libertarianism on the Net is actually surprisingly blind to the potential exercise of state power. That is to say that the central Net libertarian ideas, which I shall call “The Internet Trinity,” are actually incorrect because they assume too easily that the Net cannot be regulated. They assume there is no way for the state to control the Internet and thus no reason to fear regulation. So, whether we want it or not, libertarianism will be the regime, or at least there will be no regulation of any extensive kind. From there, the Internet prophets move to arguments about what our community should actually be doing. I am going to argue that the underlying assumptions of these beliefs are incomplete, and in some cases, just wrong.

II. THE INTERNET TRINITY-THREE ASSUMPTIONS ABOUT WHY THE INTERNET CANNOT BE REGULATED BY STATES

A. The Internet Treats Censorship as a Malfunction...and Routes Around It

Let me begin by laying out the Internet trinity-the three tenets of the Internet faith that tell us why the Internet cannot be regulated by states. The first one, from John Gilmore, one of the founders of the EFF,² is that the Internet treats censorship as a malfunction and routes around it. This tenet contains a vital technical truth. The Internet is a distributed network. It is a system which has no central node, no organizing exchange-no one single radio tower, broadcasting device, or control center. Thus it is extremely hard to shut down the Net. You put a blockage in one place, and messages flow like water around it. In fact, “packet-switching” is basically a method of communication by hitchhiking. That is to say, when you write your e-mails or put together a web page, your data is broken up into several different packets, each carrying a little sign that says, “Going to New Haven.” The packet of data then hitches a ride along the network. Some of the packets will travel by way of New York, some will travel by way of Boston, others will bounce around for ages until they finally get to their destinations where they will be integrated seamlessly. Try to imagine a censor trying to shut this thing down. It is like trying to grab the soap in the bath-you grab for it and it slips away. The idea of trying to exercise control over this seems impossible, hence the idea that the Internet treats censorship as a malfunction. The packets treat censorship the same way that they do a downed server-they just go around it.

Now this produces what I call the “libertarian Gotcha!” Imagine that you are controlling a large society and you want your citizens to have the benefits of the Internet but you don’t want them to have access to the entire content of the Net. Well, you face a real problem. If this was a traditional form of broadcast media, you may be able to jam the signal, as the Soviet Union did for a long time. If this was a print publication, you might embargo undesirable material at the border. In contrast, the Net seems like a tap that only has two settings-it is either on or off. Once it is turned on, you get access to everything. This offers the censor a Faustian bargain. The censor can either say, “We can

² The Electronic Frontier Foundation (EFF) is a nonprofit organization that is dedicated to preserving the rights of Internet users.

The EFF maintains a homepage at <http://www.eff.org>.

give our society, our company, our state, our community access to the Net, but that's access to all of the Net. Or we do not have any access to the Net at all." To the civil libertarian, this is an extraordinarily nice position to have people in. It is a deal you cannot refuse, yet it is a deal you do not want to accept.

Along with this idea often comes a related faith in the history of technology; a kind of technological determinism or technological meliorism in which all societies are moving to an ever more distributed communication system; away from the control of literacy among the elite and towards multiple forms of communications. The Net seems like the ultimate embodiment of this imaginary history. It is the dispersed network par excellence. Indeed, if you subscribe to this view, the Internet is literally the end of history; the ultimately dispersed communications technology.

B. Information Wants to Be Free

The second part of the Internet trinity is Stewart Brand's great phrase "information wants to be free." This is the idea that the Net is incapable of being regulated not only because of the technology, but also because of the nature of the messages, the content, on the Net. Many authors believe that information wants to be free-by its nature, information is something which spreads freely beyond anyone's control. The Net is a realm of information, and information is very hard to regulate. The state is too slow and too cumbersome to deal with the technology and to rein in the information. Information will just squirt out of your fingers every time you try to grab it.

C. No Single Sovereign Can Regulate Speech

The third component of the Net trinity is John Perry Barlow's phrase, "On the Net, the First Amendment is a local ordinance." People appeal to the First Amendment whenever they do not want to be restricted, even in cases, such as the regulation of speech by private parties, where, technically speaking, it has no application. The Cybnauts have turned First Amendment faith on its head. The Net libertarians certainly support the constitutional ideal being invoked, but they think we are putting our faith in the wrong place. We should not put our faith in the law to protect free speech. We should put our faith in technology. Why? Because on an Internet that is global, it is in fact impossible for individual states to regulate speech.

The nature of the network technology, the nature of the informational content, and the fact that the Net stretches across borders beyond the control of any one sovereign all mean that speech cannot be regulated. This kind of three-fold argument has even been extended by others. The cyberpunks, for example, argue that various advances in cryptography will allow us to communicate with each other in unbreakable code. Unbreakable encryption will allow us to set up private digital currencies. It will allow us to set up virtual companies, which exist beyond the reach of any state to regulate. It will be the ultimate evasion of regulation. We will actually be able to create a virtual economy, the currency of which cannot be controlled by any individual state and within which individuals are perfectly anonymous and unidentifiable. We will merrily and happily transact with one another in cyberspace beyond the reach of the state, which will wither away as its tax revenues disappear. This

vision of cyber-anarchy, like the narrower ideas of digital libertarianism, is premised on the belief that the state cannot regulate the Internet.

III. FALLACIES OF THE INTERNET TRINITY-WHY THE STATE CAN REGULATE THE INTERNET

A. The Law Does More Than Punish After the Fact

The view that the state cannot regulate the Internet is overstated and actually wrong. Though Net libertarians might be surprised to hear it, their idea of law is an overwhelmingly positivist one-and nineteenth century positivism at that. Under this view, law is a command backed by threats. It comes from a sovereign and is directed towards a geographically defined area, in which there are subjects who render that sovereign habitual obedience. Law is paradigmatically criminal-it says, "Do not do that or else the state will punish you."

In actuality, of course, there is a lot more to law than criminal law. There is a lot more to law than the punishment of actors *ex post facto* for having done certain things. The law covers many more areas and exercises power in many other ways. The law sets up property and tort systems and enlists private actors as "private attorneys general" whose job it is to support schemes of public regulation. It does this by making them liable and encouraging them to change their behavior and the behavior of others, as with tort liability or emissions trading in pollution control. It does so by offering them positive incentives to police other parties, as through contingency fee awards to lawyers or statutory damages to whistleblowers. Finally, it does so simply by trying to line up the self-interest of private parties in such a way that the everyday operation of the market will bring about the desired end.

B. The Internet May Also Be Regulated by Technology

Libertarians tend to look at technology as something that is neutral. If there are problems on the Net, they can be solved by the software, by the hardware, or by the code. There will be a technical fix for it. Yet libertarians do not seem to be troubled by the idea of a technical fix for regulating conduct. To them, regulation through technology is unimportant while regulation by the state seems implicitly much more problematic. Later in this talk, I will argue both that libertarians ought to be more skeptical about technological solutions and that, through standard setting and "architectural" changes, the state has considerably more ability to regulate the Net than had been previously imagined.

C. Both Public and Private Rules Serve to Regulate

The final assumption underlying the Internet trinity is a vision of markets expanding beyond state boundaries and flourishing without law, without regulation. We envision a perfect, free market existing without the state exercising power over it. In this vision, markets form spontaneously in the absence of regulation. The rules of contract, property, tort, and intellectual property are not seen as regulation, but are merely elements constituting the market. We tend to see both private and public law-environmental regulation, say-as being regulatory mechanisms for shaping marketplace

transactions. But a moment's thought (and a little legal realism) should reveal what a shallow view this is. The state, in fact, exercises enormous power, through its ability to set up the ground rules of property, contract, and tort, the very rules that constitute the market.

IV. FOUCAULT'S VISION OF POWER AND ITS RELATIONSHIP TO THE INTERNET

So where does Foucault come into all of this? Foucault's ideas are useful in two ways. In his work, *Discipline and Punish*,³ and a variety of other places, Foucault says that our visions of power are much too obsessed with the state. We tend to focus on the state, and in particular, we tend to focus on the triangle of the sovereign, the citizen, and the right. Our vision of power is largely this: I, the sovereign disciplining you, the subject. In a more liberal version perhaps you are able to interpose the shield of "a right" which stops me from doing something negative to you. This is a relatively simple vision, one of a world in which power is largely exercised by states on individuals unless those individuals can claim legal rights to block out state power. Foucault, although he was not writing about the Net or even about this century, argues that actually there are many other ways in which power is exercised.

A. The Panopticon: The Internalization of Power

The first way in which power can be exercised lies in the concept of the Panopticon. Foucault takes the utilitarian idea of a prison constructed around a single observing warden, who with his enormous telescope moves from cell to cell and may, at any moment, be observing the behavior of the inmates in their cells. The inmates never know when the warden is watching; thus, the inmates must conform their behavior to the correct rules at all times. The wonderful idea here is that there may not actually be any enforcement mechanism other than self-regulation. That is, the warden may be sleeping on the job, yet the inmates will behave because they think the warden is monitoring them. Thus, there has been an internalization of power, an internalization of the sovereign as represented by the warden. It is a penal version of the super-ego where you have a little voice in your head whispering, "The warden might be watching."

B. Implicit Regulation Through Architecture

Foucault also wrote about the way in which architecture actually exercises power. Foucault was originally writing about architecture, literally. He directs our attention, not so much to the legal status of the worker vis-à-vis the employer, but to the way that the design of the factory itself sets the workers up so that each worker is subject to the gaze of all the other workers and to the watchful eye of the boss. The workers-like the inmates of the panopticon-are forced to conform their behavior to that of an ideal worker. I want to extend this idea to non-literal architectures, and in particular, the architecture of the Net.

The Internet is one type of architecture, an intangible yet obvious structure. Foucault's vision of constructing a space that actually exercises power applies here as well. In this space, if our vision of

³ MICHEL FOUCAULT, *DISCIPLINE AND PUNISH: THE BIRTH OF THE PRISON* (1977).

power is the sovereign who punishes bad citizens, then we would say that power has no foothold on the Net. But architecture, the ways in which the system is set up to permit, or to require, certain forms of identification, monitoring, or payment, is a kind of power that constrains quite effectively. Architecture is important because it can construct constructing a world in which individuals interact in such a way that each person can only do the things that he or she is supposed to do—alternative behaviors are not permitted by the architecture.

V. A MORE COMPLETE VISION OF THE REGULATION OF THE NET

Foucault's point is that focusing on the state provides an incomplete account of power because private parties wield power as well. Power is not only exercised by the sovereign. Applying this argument to the Net, we can see that the vision of the state regulating the Net by punishing wrongdoers *ex post* is remarkably incomplete.

Let me start with an example, the Digital Telephony Act. When digital telephones were being introduced in the United States, the FBI insisted that the digital telephone system be designed so that law enforcement would have the ability to tap digital phones in the same way that they could tap landlines. The FBI was worried that digital telephony could be encrypted or used on different frequencies to evade law enforcement. The result was that digital telephony is actually designed to be tappable. The designed tappability of digital telephony is a completely different vision of regulation from the vision of the state punishing you after you have used the digital telephone to commit a crime. Here, the state has actually constructed the medium in such a way that the powers of discipline and surveillance are included within it.

This is not unusual for the state to do. As I pointed out before, one of the ways in which the state's power is exercised is by enlisting private parties. Take, for example, the law of products liability. We impose strict liability on product manufacturers and sellers to encourage them to invest in safety. We also offer contingency fees that give lawyers an incentive to find and litigate cases, which in turn impose damages that further encourage manufacturers to build things safely. Because of this system of laws, we do not have a complex set of explicit regulations detailing that a manufacturer must build a chair with these dimensions or else suffer the state's punishment. Instead, our enforcement mechanism is the internalization of costs and the enforcement mechanism is largely private. The state will not tell you how to build a chair, but if you build an unsafe chair, you will be sued by consumers and no one will buy your chair; these will be the costs you have to bear for building an unsafe chair. This type of enforcement is done through the market, but it is just as much of a way of exercising power and regulating the industry.

This type of private enforcement has been much tried on the Net with mixed success. My favorite example is the attempt through the NII Copyright Protection Act to impose strict liability on Internet service providers for copyright violations perpetrated by their subscribers. The idea there is if I send you a copy of a pirated software program across the Internet, the copyright holders can sue me, as well as the online service provider. The Clinton Administration's White Paper would have made the online service provider strictly liable for my copyright infringement, whether or not they

knew about the copyright violation. This theoretically would encourage online service providers to monitor what their subscribers were doing. They would make subscribers consent to digital detection schemes to detect copyright violations. The scheme was an attempt to exercise power over the Net by enlisting private parties on the one hand and using technological means on the other, all without state intervention. The scheme seems to me like a very, very bad idea, and thankfully, it was defeated. But the paradigm it represents is one that we will see again.

Let me talk about one other example. When the ill-fated Communications Decency Act was proposed, a group of programmers decided that they should head off these attempts to regulate the Net by showing that regulation could all be done more cleanly, easily, and less coercively through technological means. These programmers developed a fascinating system called the Platform for Internet Content Selection (PICS). PICS is a rating system in which the contents of web pages could be rated so that undesirable content could be identified and separated out. Web pages could be rated both by first parties and third parties. That is to say, you could rate your own web page, saying, "This is Boyle's intellectual property page, not much nudity and not much violence, some strong language." Or, alternatively, you could go through a third party rating system. For example, if you do not want to see material that is degrading to women, you could download all your materials through the National Organization for Women's server and the National Organization for Women will have rated and filtered out content that is degrading to women. You could use the National Rifle Association filtering service so you would never have to listen to any of those anti-gun nuts. The important point to note here is that this kind of filtering would mean that the tap no longer has to be either on or off. This would actually allow some selection of content. Remember that the idea behind the PICS scheme was that, since there was some private filtering, the desire to regulate the Net through the law would be curtailed.

Of course, all actions have unintended consequences. What has happened now is that PICS has been seized upon as a wonderful way to rate the Net and government regulations now require the installation of a variety of blocking and filtering software in certain public institutions, such as schools and libraries. (Some of the software used is actually more problematic than PICS. My favorite example is the software-based filter, which aimed to block sites about sex, but which inadvertently also blocked all sites that contained references to feminism because—as we know—feminists do talk constantly about sex, though perhaps not in exactly the way that the programmers had in mind.) What is worse, blockages are often invisible to the user; the user does not know which sites have been filtered out.

VI. CONCLUSION-AN ALTERNATIVE VISION OF FREEDOM IN CYBERSPACE

So how does all of this affect the Internet trinity? There are multiple potential methods to regulate web content. We could use software-filtering schemes administered through public or private agencies. The government could threaten not to buy your technology unless it has a filtering chip embedded in it. The government could require you, as it did in the Digital Telephony Act or in the V-chip bill, to have a certain form of technological blocking. We could construct various liability

schemes designed to regulate content. All of this suggests that the world is a little bit more complicated than we had thought.

If you put all of this together, it might suggest an extremely unpleasant vision of the future where we would have many of the bad things of the libertarian vision without the good things. It might seem that this conjures up a world in which we have a communications technology which can be regulated, which can be filtered, which can be shaped in various different ways by both public and private parties. We could have digital “spite fences” blocking off certain kinds of content and limiting free expression.

However, I would like to suggest an inversion of that picture. To me, one of the interesting things about the Net is the two stage argument I have tried to bring out today—the apparent fit between libertarianism and the Net, and then the problems that arise when we examine the Internet trinity closely. Indeed, although it seems that the Net fits libertarianism neatly, there are actually ways in which I think the Net will be deeply subversive of libertarianism and perhaps even subversive of the boring drone of the neoliberal Washington consensus.

Why do I say that? Well, one of the ways in which a libertarian vision of the world resolves problems is to hide the problems inside the concept of property. We just say that we will give everyone property rights and they can make their private decisions inside the shield provided by their property rights. Of course, we have no cause to judge private decisions. So any kind of contentious decision put into the private workplace, or in the context of private ownership, and any kind of involvement by the state is intrusive. On the Net though, it seems to me it is extremely unlikely that we could maintain this vision, which hides public power behind the idea of property rights. The idea is that I should be able to say this is my house and I can let people in when I want to and tell them to leave when I want to. This is my shop, I own this shop and I can tell you whether or not you should be able to form a union. There is a kind of physical, tactile element involved. It is much harder to have that kind of absolutist, concrete vision of property when the property involved is intellectual, rather than physical. A man’s home may be his castle, but what about a corporation’s business method patent? Somehow the public choices involved in the creation and enforcement of the regime are a little more obvious.

The second point is that increasingly on the Net, libertarians, as well as other people, have been seeing some of the problems caused by the construction of the architecture that I am describing. Namely, they realize there are a variety of different ways, different paths, along which this medium could develop. Some of these architectures will encourage this kind of behavior, some will encourage that kind of behavior, some will give power to this group, some will give power to that group. There is a realization that the construction of this architecture is actually an appropriate subject for public debate and discussion. The development of the Net is not merely neutral. It is not just going on in the background, not just “the way things are.” It is actually something that needs to be subject to democratic decision and debate.

To sum up then, if I have a fear about the Net, it is that we go forward into the future with this kind of high-tech version of the Lochner era. That we just turn everything over to technology on the one hand and to contract and private law on the other, and then wash our hands of the matter.

If I had a hope, it would be that there would be a kind of high-tech version of legal-realism in the progressive era, which would start to see the various ways in which power is being exercised over the Net; whether through the construction of the marketplace, the design of the private law rules, or the enlistment of private parties. In fact, it seems to me that it is only by being aware of these different forms and arenas of power that we can make the Net live up to some of its utopian promise, that we can make the Net a product of informed and open discussion and debate.