NETWORK STORIES

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In 1962, Rachel Carson named the natural environment.[1] Scientists were beginning to understand the complex web of ecological cause and effect; naming that web gave it independent existence and invested that existence with political meaning. In 1996, James Boyle named the cultural environment. Boyle's act of naming was intended to jumpstart a political movement by appropriating the complex web of political meaning centered on the interdependency of environmental resources.[2]

But naming, although important, is only a beginning. The example of the natural environment shows us that to build from a name to a movement requires two things. First, you have to do the science, which means generating detailed descriptions of how this environment works and what harms it. Second, you have to generate a normative theory powerful enough to overcome all competing narratives: a story about what makes this environment good. In the context of culture, however, there is an important difference: Cultural harm is less amenable to scientific proof. Cultural *change* may be empirically and anecdotally demonstrated, but cultural *harm* is in the eye of the beholder. This means that the normative theory needs to do heavier lifting.

Proponents of cultural environmentalism, then, need to tackle the normative theory: to formulate a theory of "the network" as a whole that explains what makes it good. This is part of the point of Boyle's original argument, and also the point of Susan Crawford's excellent paper.[3] Although carving out open enclaves is important, in the final analysis the cultural environment won't be saved a piece at a time. It will be saved only when we recognize it as an entity that is more than just the sum of its parts.

So what makes "the network" good? Scholarly and popular discussion by and among open-network advocates suggests two answers: The network is us,

1. RACHEL CARSON, SILENT SPRING (1962).

2. JAMES BOYLE, SHAMANS, SOFTWARE, AND SPLEENS: LAW AND THE CONSTRUCTION OF THE INFORMATION SOCIETY (1996); *see also* James Boyle, *A Politics of Intellectual Property: Environmentalism for the Net?*, 47 DUKE L.J. 87 (1997).

3. Susan P. Crawford, *Network Rules*, 70 LAW & CONTEMP. PROBS. 51 (Spring 2007).

and the network that is us is a separate entity with a life and a liberty of its own. These answers seem to me to be inconsistent, and the second one strikes me as unsupportable in light of the first. If the network is us, then it isn't a separate entity. It isn't an ocean or any other natural ecology; it isn't a separate, reified "space"; it isn't a natural, preexisting entity at all, but a social one. To say that the network has a life of its own is to assert that there is a natural form of social ordering that the open Internet enables us to achieve. Both social theory and the new science of networks tell us that that is nonsense. The social formations that make up the network exhibit patterns and create path-dependencies. The network that Boyle and Crawford want to preserve is the social one that emerges when the new patterns of information flow enabled by the open Internet are layered over the patterns of flow that preceded it. The battle that is being fought in Washington is being fought because some powerful interests want to reconfigure the Internet to reinforce old patterns and path-dependencies. Boyle and Crawford want to preserve its ability to enable new ones, and that is a goal I wholeheartedly support.

Simply to say that the network is us, though, doesn't tell us anything terribly specific about what makes it good. After all, a network of private internets would still be us. Here we need to come back to the first inquiry that naming the cultural environment requires, which I characterized earlier as "doing the science" necessary to understand how the cultural environment works, and what harms it. This is, paradoxically, where the power of the environmental analogy ends; arguments from biodiversity and evolutionary theory will not do. What makes the network good can only be defined by generating richly detailed ethnographies of the experiences the network enables and the activities it supports, and articulating a normative theory to explain what is good, and worth preserving, about those experiences and activities. To say that the network is us is to say that the network is the sum of the experiences and actions of its individual, situated users, and of the patterns and flows that their interactions create.

Here there is a further difficulty: How does one articulate a normative theory that preserves the link to experience, but at the same time convinces individuals to look beyond their own experiences? For users of the new private internets, what exactly will the shift to a private internet change (or threaten)? This question cannot be answered with rote invocation of the abstract concepts of "innovation" or "democracy." If we are to take seriously the statement that the Internet is us, the answers we provide must remain systematically linked to the concrete realities of everyday experience. We must find a way to describe what an open network will allow users to encounter, and what it will enable them to create, that enables users to see beyond those immediacies to the larger patterns.

The beginnings of one such description can be glimpsed around the edges of the more exceptionalist arguments offered by many open-network advocates, in the examples of dialogue, group formation, and group-based creativity that they

provide. The organizing principle underlying these examples is the emergence of groups and collectivities. But I want to suggest two more general and, I think, more apposite organizing principles: First, the network enables the creation of meaning, for both individuals and groups. What we need now is to dispense with the equally abstract romanticism of cyberspace exceptionalism and emphasize all of the concrete, everyday ways in which the open Internet enables the creation of meaning by and for real people in real spaces. Not bits, not abstract, disembodied information that has independent properties of flow, but meaning. Second, meaning emerges through and because of the opportunities for play that the network affords. Meaning emerges from the sorts of expression conventionally understood as expression—from the generation of dialogue on blogs, the formation of affinity groups, and the construction of authoritative texts on wikis. Private internets may enable the first activity, but will they also enable the latter two to the same extent? Meaning emerges also from expression not conventionally understood as such—from what Edward Felten has called freedom to tinker[4]—and from fortuitous encounters within the network. Will private internets enable these activities?

Here we come to the crux of the matter: The telecommunication companies and cable companies aren't stupid. They likely will enable all of these activities—at least at first, at least to a degree. How much enablement is required? All protocols constrain. What quantum of constriction equals a threat? From the perspective of the individual, situated user, how would we know? And why should we care? How can we assess the options that we aren't given?

This is where we need stories—histories, romances, and myths—that remind people how meaning emerges from the uncontrolled and unexpected. We need stories that emphasize the meaning of being allowed to decide for ourselves what meaning to create, and how. We need stories that highlight the importance of cultural play, and of the spaces and contexts within which play occurs. Smart providers of private internet service know this too, and so the emergence of the rhetoric of play has led content providers and Internet access providers here and there to talk about constructing playgrounds.[5] But playgrounds are for children. There is a middle space between the controlled disorder of the playground and outright chaos, where adults get to choose what they will hold meaningful, with whom they will associate, what they will build. That is the space of the open network, and that is the good we need to be discussing.

Susan Crawford says that we all need to become telecommunications scholars, and maybe we do, but there are other resources that seem even more germane to the task of narrative-building that she envisions. Social and cultural theorists have long studied the interlocking systems of culture, and have

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4. *See generally* Edward Felten, Freedom to Tinker, http://www.freedom-to-tinker.com/ (last visited Sept. 30, 2006).

5. *See, e.g.*, Packard Bell Playground, http://www.packardbell.co.uk/products/playground/ (last visited Sept. 27, 2006).

developed a keen appreciation of their interdependencies. We in the legal academy, with our commitments to abstract economic analysis or to equally abstract and decontextualized theories of rights and democratic discourse, have not looked closely enough at these resources.[6]   And perhaps the political movements to which we should be looking for inspiration include not only the environmental movement, but also social movements concerned more directly with relations of culture, identity, and equality.[7] Perhaps, for example, we might build from the feminist rallying cry, "Get your laws off my body," to our own: "Get your rules off my mind."

Finally, it is important to remember that the network is only as open as its endpoints will allow. A network neutrality mandate would not address another threat to openness within the cultural environment, one that in the end may be more serious. That is the threat of the trusted system—what I have called pervasively distributed copyright enforcement and what Jonathan Zittrain has called the advent of the information appliance.[8] We know how to worry about monopolists we can see. We do not yet know how to worry about authorization and constraint embedded in the consumer technologies that operate at the endpoints of the network, and if those forces are deployed through ostensibly collaborative market processes there may be no visible entity or oligopoly at which to point.

Telecommunications law has little to say about the sort of control that trusted systems enable. Addressing this threat to the cultural environment also requires more than a theory founded on the four regulatory modalities that Larry Lessig so perceptively identified for us, and that are of most direct and instrumental interest to policymakers.[9]   Here again, to understand how control at the ends structures the experience of the network, we need a social theory: one that situates regulation by protocol within the context of social and cultural ordering more generally. And here again, the theory needs to be firmly grounded in the everyday experience of network users, and in the patterns of interaction that the network enables or forbids.[10]

In sum, generating a normative theory of the open network requires more than a theory of intellectual property or telecommunications, and "doing the science" of cultural environmentalism requires more than appropriation of the environmental metaphor. Cultural environmentalism is like environmentalism,

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6. I consider what copyright scholarship can learn from social and cultural theory in Julie E. Cohen, *Creativity and Culture in Copyright Theory*, 40 U.C. DAVIS L. REV. 1151 (2007).

7. Important recent work explicitly linking intellectual property policy with social justice includes YOCHAI BENKLER, THE WEALTH OF NETWORKS: HOW SOCIAL PRODUCTION TRANSFORMS MARKETS AND FREEDOM (2006); Anupam Chander & Madhavi Sunder, *The Romance of the Public Domain*, 92 CAL. L. REV. 1331 (2004); Margaret Chon, *Intellectual Property and the Development Divide*, 27 CARDOZO L. REV. 6 (2006); and Madhavi Sunder, *IP³*, 59 STAN. L. REV. 257 (2006).

8. *See generally* Julie E. Cohen, *Pervasively Distributed Copyright Enforcement*, 95 GEO. L.J. 1 (2006); Jonathan Zittrain, *The Generative Internet*, 119 HARV. L. REV. 1974 (2006).

9. *See generally* LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE (1999).

10. For preliminary steps in that direction, see generally Cohen, *supra* note 8, and Julie E. Cohen, *Cyberspace as/and Space*, 107 COLUM. L. REV. 210 (2007).

but it is also different. If it is to succeed, cultural environmentalism must grapple directly with culture. In cultural environmentalism's next decade, I very much hope that we will make that our shared project.