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Introduction: Imagining the Networked Information Society

Over the last two decades, the rapid evolution of networked information and communication technologies has catalyzed equally rapid change in the organization of economic and social activity. Spurred by the perceived economic opportunities and threats that new digital technologies create, powerful actors have endeavored to define and channel flows of information in ways that serve their goals. Those efforts have led to prolonged and often bitter struggles over the content of law, the design of technology, the structure of information markets, and the ethics of information use. In addition, they have stimulated heated scholarly and policy debates about what a good information society should look like.

The ongoing debate among U.S. legal scholars and policy makers about the structure of the networked information society has two odd features. First, the emerging regime of information rights and privileges is publicly justified in terms of economic and political liberty, but as a practical matter, it allows individuals less and less control over information flows to, from, and about themselves. In particular, the commercial, legal, and technical infrastructures that define the individual experience of the network are converging around relatively strong default protection for intellectual property rights in information—most notably copyright and trade secrecy—and relatively weak protection for individual privacy. To an extent, the explanation for this is political. Advocates of strong copyright and advocates of weak privacy share interests in strengthening the commodification of information and in developing infrastructures that render individual activity transparent to third-party observers. Those entities wield considerable political and economic clout. But the gap between the rhetoric of liberty and the reality of diminished individual control is nonetheless striking.

Second, despite their practical convergence, legal and policy discussions about control of cultural information and control of personal information have remained largely separate. For the most part, the leading scholarly books on these topics do not acknowledge, much less attempt to explore, the interconnections. Within the wider public policy arena, copyright and privacy issues are rarely linked. To an extent, this disconnect also has a political explanation. Advocates of increased commodification and transparency have nothing to gain from highlighting the overlap. Advocates of "free culture" and "access to

knowledge," meanwhile, tend to be uneasy with the limitations on access that privacy claims represent, and so have difficulty making common cause with privacy advocates across a broad range of issues. This uneasiness produces a second rhetorical gap, within which advocacy for human rights and human welfare in the networked information society proceeds as though "openness" were the only thing that mattered.

This book argues that the two phenomena are linked. The curious divergence between the rhetoric of liberty and the reality of diminished individual control and the failure to link copyright and privacy issues more systematically on both political and theoretical levels have a common origin. Together, they signal deep inadequacies in the conventional ways of thinking about information rights and architectures.

For the most part, U.S. legal and policy scholarship about the networked information society shares a set of first-order commitments—to individual autonomy, to an abstract and disembodied vision of the self, and to the possibility of rational value-neutrality—that derive from the tradition of liberal political theory within which legal academics are primarily trained. Those commitments shape both the prevailing understanding of the legal subject and the preferred form of analysis by which a just and intellectually defensible system of information rights is to be derived.

In each of three areas that the book will explore—copyright in cultural creations, privacy interests against surveillance, and the design of the architectures and artifacts that mediate access to networked information resources—a common pattern emerges: legal scholarship posits simplistic models of individual behavior derived from the first-order liberal commitments and then evaluates emerging legal and technical regimes that govern information flow according to the models. Theoretical frameworks organized around the core liberal individualist themes of expressive and market liberty predominate, regardless of their fit with the phenomena under investigation.

This approach has not served either theory or policy well. The models of individual behavior upon which it relies are too narrow both descriptively and normatively to yield useful insights into the relationships between copyright, creativity and culture; between surveillance, privacy, and subjectivity; and between network architecture and social ordering. Moving beyond the bounds of liberal political theory is essential if we are to understand the cultural work that regimes of information rights do and to appreciate the ways in which formally separate regimes of information rights intersect.

Human beings and human societies are constituted by webs of cultural and material connections. Our beliefs, goals, and capabilities are shaped by the cultural products that we encounter, the tools that we use, and the framing expectations of social institutions. Those processes play out in concrete contexts, involving real spaces and artifacts that we encounter as embodied beings. We cannot claim to judge cultural and social institutions from a vantage point of detached, value-neutral distance, as liberal theory would have us do. But we also cannot avoid the necessity of judging. The legal, technical, and institutional conditions that shape flows of information to, from, and about us are of the utmost importance not because they promote free speech or free choice in markets, but because they shape the sort of subjectivity that we can attain, the

kinds of innovation that we can produce, and the opportunities for creation of political and ethical meaning that we can claim to offer.

This book seeks to remedy legal scholarship's theoretical deficit and, in the process, to develop a unified framework for conceptualizing the social and cultural effects of legal and technical regimes that govern information access and use. It will ask the sorts of questions with which law traditionally has concerned itself—what regime of information rights is just, and why—but it will foreground a set of considerations that legal thinking about those issues has tended to marginalize. It will consider how people encounter, use, and experience information, and how those practices inform the development of culture and identity. In particular, it will explore the ways in which social practices of information use are mediated by context: by cultures, bodies, places, artifacts, discourses, and social networks. From that vantage point, it will consider the ways in which the processes of cultural development and self-formation adapt to laws, practices, and technologies designed to impose commodification and transparency within the information environment.

In brief, I will argue that the production of the networked information society should proceed in ways that promote the well-being of the situated, embodied beings who inhabit it. That framework owes something to the theory of capabilities for human flourishing developed by Martha Nussbaum and Amartya Sen, and more recently applied to questions of information law and policy by a number of influential scholars. In the abstract, however, the statement that law should promote human flourishing tells us very little about the conditions of human flourishing in the networked information society.

We will see that law- and policy making for the networked information society serve the ultimate goal of human flourishing most effectively when they attend to the ordinary, everyday ways in which situated, embodied subjects experience their culture and their own evolving subjectivity, and when they consider the ways in which networked information technologies reshape everyday experience. To promote human flourishing in the emerging networked information society, information law and policy should foster institutional and technical structures that promote access to knowledge, that create operational transparency, and that preserve room for the play of everyday practice. We will see why the politics of "access to knowledge" should include a commitment to privacy, and why a commitment to human flourishing demands a more critical stance toward the market-driven evolution of network architectures.

Variations on a Common Theme: Freedom and Control in Information Policy and Theory

Discussions among legal scholars and policy makers about copyright, privacy, and the design of network architecture revolve inexorably around the central themes of freedom and control. One view of the ideal information society, which I will call "information-as-freedom," celebrates networked information technologies because they enable unimpeded, "end-to-end" communication and thereby facilitate the growth of a vibrant, broadly participatory popular culture. The other, which I will call "information-as-control," celebrates networked information technologies because they enable precise, carefully cali-

brated control of information flows and thereby facilitate the flourishing of vibrant information markets. Few legal scholars advocate either view in its purest form all the time. Policy and legal debate about any given topic, however, are inevitably driven by the clash between the two, and the different policy prescriptions that they appear to generate.

My goal in this book is to focus critical attention on what the freedom/control binary leaves out. Upon closer inspection, each vision of the information society has a hollow core. The self that is to exercise expressive freedom, or to benefit from market abundance, remains a mere abstraction, and the emergent character of the relation between self and surrounding culture remains largely unexplored. Relatedly (and not coincidentally), scholars in both groups have been spectacularly unsuccessful at grappling with a series of difficult questions about normative endpoints: about the sort of culture that a regime of copyright should seek to privilege, about the kind of subjectivity that a regime of privacy protection should seek to promote, and about the values that network architectures ought to serve.

Enclosure and the "Cultural Environment"

In the domain of copyright, the clash between information-as-freedom and information-as-control plays out in the form of a debate about the merits of broader rights and increased commodification of copyrighted content. Adherents of increased commodification point to the economic welfare that stronger property rights create. Critics of increased commodification have sought to rebut those arguments by drawing attention to the interdependence of cultural and informational goods and activities. They argue that commodification not only impedes specific economically and socially valuable activities that result from the free flow of information, but also impairs overall cultural health. Neither set of scholars, however, can explain why its preferred approach to fostering cultural progress is a good one.

Critics of increased commodification of cultural goods advance two major themes, one drawn from economic history and one drawn from natural history. The first theme invokes the "enclosure movement" in Britain. At various times from the fourteenth century to the early nineteenth century, common lands were enclosed, with drastic consequences for the commoners accustomed to using them. Legal scholars have called recent expansions of copyright a "second enclosure movement" that threatens to produce equally drastic consequences for information users.[1] Many scholars, including Yochai Benkler, James Boyle, Lawrence Lessig, Brett Frischmann, and Carol Rose, have sought to rehabilitate the "commons" from its association with tragedy and to celebrate the productivity of common cultural resources.

The second theme is that of environmentalism. Although today the idea of a natural environment seems unremarkable, that idea emerged within scientific and popular discourse only in the mid-twentieth century, during the debate that followed publication of Rachel Carson's *Silent Spring*. Scientists were beginning to understand the complex web of ecological cause and effect; naming that web gave it an independent existence invested with political meaning. Borrowing self-consciously from the history of the environmental movement, James Boyle has argued that policies favoring increased commodification of information harm a different kind of environment, constituted by society's cul-

tural and informational resources.[2] By appropriating the complex web of political meaning centered on the interdependency of environmental resources, he sought to jump-start a political movement focused on an ecological understanding of culture and cultural processes. Other scholars have taken up the call, and count themselves part of a new movement organized around the cause of a diverse and self-sustaining culture.

In the public policy arena, academic critiques of commodification and enclosure intersect with a set of grassroots movements loosely organized around the banner of "free culture." Inspired by the successes of free and open source software, free-culture advocates argue that free and open access to informational goods is essential to both cultural progress and democratic self-government. Legal scholars, in turn, cite the free-culture movements as evidence of the vibrancy of the cultural commons, and regard free-culture advocates as the environmental activists of the information age.

Yet the metaphors of "commons" and "environment" also surface unanswered and deeply divisive questions about substantive cultural policy. Ecological analysis of "culture" does not lead unproblematically to the conclusions its advocates urge. Instead, attempts to do the "science" of cultural environmentalism have generated some very peculiar results. Many scholars appear to lose sight of the metaphoric quality of the references to "environment," pursuing explanations for culture in the realms of complex systems theory and evolutionary theory rather than in the literatures that study culture itself.[3] In the realm of culture, however, conflating metaphor with reality is a risky move. The health of ecological environments is constrained by scientific principles and therefore relatively amenable to objective measurement. Cultural environments have attributes and tendencies, but they are far less predictable, and their health is a matter of opinion. For precisely this reason, attempts to translate cultural "science" into cultural policy are open to contestation. Cultural change may be empirically and anecdotally demonstrated, but cultural harm is in the eye of the beholder.

Scholars who favor broader copyright rights and increased commodification, for their part, have preferred to seek explanations for culture within the "science" of markets, but this is hardly an improvement.[4] The environment within which artistic and intellectual culture emerges and evolves isn't a market, though it contains markets. It is a social entity, generated by patterns of human and institutional interaction. Social formations exhibit patterns and create path-dependencies, some of which can be described using economic laws, but we can't deploy economic laws to generate scientifically determinate prescriptions for their optimal form. Untangling the arguments about which patterns are better requires good descriptive and normative accounts of culture itself.

When it comes to articulating a normative theory of culture, though, both scholars who oppose increased commodification and scholars who favor it become oddly reticent. Adherents of cultural environmentalism know what they think a good culture would look like, but are sensitive to the irony of appearing to dictate how that culture should be achieved. Scholars who favor commodification do not share this difficulty—the vision they promote is that of the unfettered market in cultural works—but the terms of that theory mean they must show enthusiasm, at least in aggregate, for whatever the market turns out. Their

task is then reduced to justifying whatever the market has generated, and sometimes they sound as though they have trouble believing themselves.

Establishing good descriptive and normative foundations for cultural policy requires confronting culture on its own terms, stripped of the veneer of scientism that the "environment" and "market" metaphors encourage. It requires, in other words, exactly what scholars on both sides of the debate have been trying to avoid: a theory that focuses on culture as culture and grapples directly with questions about why institutional arrangements for the production of culture matter. To decide whether the future of the "cultural environment" is in jeopardy, we need to understand how cultural processes work, why we should value them, and whether legal and institutional structures adequately take those values into account. Part II of this book develops an account of culture organized around the everyday creative practice of situated individuals and communities, and explains why copyright law and theory require such an account to function effectively.

Openness and the Future of Privacy

The topics of surveillance and privacy have proved even more confounding for legal scholars of the networked information society. Here the clash between information-as-freedom and information-as-control plays out in a bewildering variety of contexts. Practices involving the collection and processing of personal information, the monitoring and logging of individual movement and communication, and the authentication of access to networked resources pervade both government and commercial activity. In each setting, privacy advocates have attempted to demonstrate that increased surveillance poses unacceptable threats to individual freedom, while advocates of increased surveillance argue that heightened surveillance promotes economic and social welfare. For all the heat that these battles generate, they shed very little light on what is really at stake on either side of the equation.

Advocates of increased privacy protection argue that flows of information about people are just as important for liberty and self-determination as flows of information to and from people. Individuals and communities are affected by flows of information about them, and by the knowledge that those flows are used to generate. In many cases the resulting systems of classification are deployed in ways that are antithetical to principles of self-determination and to principles of distributive justice. If we are concerned with individual freedom, they argue, we should be paying careful attention to practices relating to the collection and processing of information about persons and groups.[5]

Privacy advocates, however, have difficulty explaining exactly why the information flows to which they object are so harmful. One answer often given is that uncontrolled flows of personal information threaten individual autonomy and self-determination. Like allegations of cultural harm, allegations about harms to autonomy are difficult to prove. Absent visible coercion, demonstrating harm to selfhood requires a theory of the self and of the type of self-determination that privacy enables. Legal scholars of privacy have been reluctant to offer such a theory, preferring instead to advance relatively neutral conceptions of freedom. Another answer often given to explain why surveillance causes harm is that privacy promotes important social values, but the values described tend to be vague and nonspecific. No clear organizing theme—like

"free culture" or the "cultural environment"—has emerged to serve as a focal point around which privacy advocacy and policy making might coalesce.

Arguments about the value of privacy, meanwhile, make many scholars on both sides of the freedom/control binary very nervous. First and most obviously, surveillance practices that revolve around the collection and processing of personal information play an important role within the vision of information-as-control. Information-driven profiling enables more precise tailoring of information services to customer needs and more precise fulfillment of security imperatives. Legal rules conferring ownership of collected personal information on data aggregators also reinforce norms of information ownership that apply to other kinds of intellectual property. Advocates of increased personal-information processing argue that privacy restrictions undermine efficiency, interfere with truth-discovery, jeopardize public safety, and hamper markets from responding to consumer preferences.[6] Yet these arguments too suffer from overgenerality; privacy opponents often cannot identify the precise gains that more information would produce.

Arguments for strong privacy protection do not sit well with open-access advocates for entirely different reasons. A political agenda based entirely on greater information openness cannot easily accommodate the goals that privacy advocates describe. Privacy may require greater access to some kinds of knowledge, but it also, and necessarily, dictates limits on access to other kinds of knowledge. Put differently, claims to increased privacy are claims about the positive value of enclosure. Privacy advocates argue that the quest for enclosure is a function not simply of the quest for profit, but also of the quest for personal security. Boundaryless space produces existential unease; boundaries, in turn, can serve important functions beyond the demarcation of commodified property. Open-access advocates resist such arguments, and one consequence of that resistance has been a fragmentation of the populist agenda that both open-access advocates and privacy advocates claim to represent.

The perceived irreconcilability of privacy and "openness" produces a very odd dynamic in which the themes of information-as-freedom and information-as-control begin to collapse into each other. Scholars on both sides invoke Sun Microsystems CEO Scott McNealy's famous statement—"You have zero privacy anyway. Get over it."[7]—with equal facility, and both sides understand the domain of appropriate policy actions to be narrowly constrained by a set of accepted parameters having to do with the primacy of private choice. The resulting arguments about the primacy of private choice no longer span the spectrum from right to left, but instead run in a circle.[8] The extreme libertarian version of the free-culture argument shades into an argument for unlimited personal choice, including unlimited personal choice to commodify the self. Meanwhile, important questions about the value of privacy and the truth gains from information processing go unanswered, and often unasked.

Understanding the ways in which disappearing privacy affects individual and social well-being requires confronting the problem of selfhood and the relationship between selfhood and surveillance in ways that the frames of autonomy, truth discovery, and free culture do not allow. Part III of this book takes up that task, developing an account of privacy organized around emerging subjectivity and explaining why society should care about the kinds of subjectivity that privacy enables.

Lost in "Cyberspace"

Debates about the shaping of the cultural environment and the appropriate scope of personal privacy have implications not only for permitted uses of information, but also for the ways that networked architectures and artifacts are designed. That discussion has been powerfully shaped by an initial narrative about "cyberspace" as experientially separate and thoroughly malleable—a place where the real-world constraints of space, body, and time are transcended and where the constraints that govern human interaction can be remade in the service of particular ideals. In a domain where everything seemed up for grabs, the clash between information-as-freedom and information-as-control became all-important; along the way, however, the combatants forgot to ask the most important question of all.

Advocates of information-as-freedom initially envisioned the Internet as a seamless and fundamentally democratic web of information, inherently unchecked by geographic borders or state-specific regulation. That vision is encapsulated in Stewart Brand's memorable aphorism "Information wants to be free." Brand's aphorism has several meanings, of which the literal, anthropomorphic one is by far the least important. It is significant, first and foremost, as an attempted statement of natural law. Information "wants" to be free in the same sense that objects with mass present in the earth's gravitational field "want" to fall to the ground. Scholars allied with this vision argued that the Internet was essentially unregulable and was therefore the ideal milieu for the realization of expressive and political freedom. Cyberspace would be "a civilization of the Mind"—or at least a separate jurisdiction, in which the laws of real space need not necessarily apply.[9] It would be subject to its own laws and constituted by the consent of its self-selected members. This framing positioned cyberspace as "empty" space: potentiality waiting to be filled up with settlements, structures, and norms, from which the constitutive legal texts of the community would then emerge.

For advocates of information-as-control, the Internet's truly revolutionary potential lay in its ability to reduce transaction costs that impeded the seamless exchange of goods, services, and speech. Put differently, they celebrated the Internet as the ideal environment for the manifestation of a different natural law: the natural law of the market. According to the natural law of the market, information does not "want" to be free at all. It derives its value precisely from the fact that it is an object of desire—a good for which people are willing to pay. For advocates of information-as-control, "cyberspace" was empty space to be filled up with more perfect versions of real-world institutions—markets and public squares unencumbered by the real world's unavoidable transaction costs.[10]

Of course, both visions of cyberspace were too simple. Early Internet architectures did not easily support the secure digital marketplaces envisioned by advocates of information-as-control. As Lawrence Lessig and Joel Reidenberg explained, however, the apparent ungovernability of cyberspace celebrated by advocates of information-as-freedom was neither a permanent nor a technologically necessary feature. In *Code and Other Laws of Cyberspace*, Lessig memorably assailed the utopian credo of the early Internet pioneers for its failure to acknowledge the technological contingency of cyberspace freedoms. He characterized utopian thinking about the Internet as a type of "is ism"—a con-

fusing of the way things are with the way they must be.[11] Whether information flows freely across boundaries depends on the design of network protocols and interfaces. And to the extent that the design of information technologies is amenable to state regulation, it does not follow that information networks inevitably will produce legal and political destabilization. Information is an agent of creative destruction, perhaps, but its properties do not dictate a particular economic or political organization. Reidenberg argued that in light of the importance of digital technology as a regulatory modality, code could and should be harnessed in the service of state regulatory interests.

Among U.S. legal scholars, *Code* in particular has become the foundational text for theories about the architecture and governance of the networked information society. Post-*Code*, the two dominant visions of the networked information society have evolved into two different approaches to the design and regulation of networked information technologies. Building from *Code*'s apparent validation of their arguments about the Internet's essential regulability, scholars allied generally with the vision of information-as-control have urged that code should become a vehicle for imposing more perfect controls over information flow. They argue that information technologies should be redesigned to build in control via digital rights management and filtering capabilities, and that a broad range of service providers, from ISPs to software designers, can and should police flows of online content.[12] Other scholars, allied generally with the information-as-freedom vision of the Internet's potential, have seized on *Code*'s argument about architecture as a source of regulatory danger to fundamental liberties. Arguing that an unfettered Internet promotes personal and political freedom, they attempt to promote the design of technologies that facilitate open, anonymous interactions and relatively unconstrained access to information.[13]

Code did not, however, displace the presumption of geographic separateness that animated legal scholarship about "cyberspace." Instead, Lessig articulated a vision of cyberspace that remained both fundamentally spatial and fundamentally exceptionalist. And in the debate about models of information law for the post-*Code* society, the narrative of cyberspace as experientially separate has persisted. The difference is that cyberspace has become a space to be designed to the specifications that we desire: a place where the hitherto unattainable ideal of information-as-freedom/control can be more narrowly pursued.

If this were simply a question of the allocation of rights and responsibilities in virtual space, it would not be very important. But what occurs in cyberspace is not separate from what occurs in real space. Cyberspace is not, and never could be, "a civilization of the Mind"; minds are attached to bodies, and bodies exist in the space of the world. And cyberspace as such does not preexist its users. Rather, it is produced by users, and not (in most cases) as a deliberate political project, but in the course of going about their lives. The technologies and "places" that constitute cyberspace have been assimilated into the lives of millions of ordinary people who embrace the Internet as a tool for pursuing their ordinary, real-world ends.

In the ongoing debate about the relative merits of freedom and control, the two visions of the information society have come to seem both strangely interdependent and strangely disconnected from the realities that confront Internet users. Policy debates have a circular, self-referential quality. Allegations

of lawlessness bolster the perceived need for control, and objections to control fuel calls for increased openness. That is no accident; rigidity and license historically have maintained a curious symbiosis. In the 1920s, Prohibition fueled the rise of Al Capone; today, privately deputized copyright cops and draconian technical protection systems spur the emergence of uncontrolled "darknets." In science fiction, technocratic, rule-bound civilizations spawn "edge cities" marked by their comparative heterogeneity and near imperviousness to externally imposed authority. These cities are patterned on the favelas and shantytowns that both sap and sustain the world's emerging megacities. The pattern suggests an implicit acknowledgment that each half of the freedom/control binary contains and requires the other.

At the same time, the dichotomy between freedom and control creates an impression of overall completeness that is warranted neither descriptively nor normatively. The choice between dreams of unlimited freedom to order one's own dealings and dreams of perfect control over permissible orderings is a choice between extremes, and therefore profoundly unsatisfactory. It is people in real space who want and need information, and for whom neither perfect freedom nor perfect control holds sustained attraction. Here the scholarly debate over the proper regulatory approach to "cyberspace" reflects not richness but poverty of imagination. Part IV of this book takes up the evolving relationship between law and architecture, or code, considering why legal scholarship has not supplied a theory that matches the lived experiences of network users and what such a theory ought to contain.

Looking for the Self in the Network: The Question of Method

Before considering the problems of culture, subjectivity, and architecture in greater depth, some table setting is order. Each of the debates about freedom and control that I have described suggests powerfully that the conceptual tool kit that legal scholars have brought to bear on information law and policy is inadequate. This section lays the foundation for a different approach, which Chapter 2 will develop. I begin by exploring some of the ways in which the ideological commitments of liberal political theory have constrained legal scholarship's investigations of copyright, privacy, and code, imposing overly narrow criteria of methodological adequacy. Too often, those criteria have prevented legal theorists from asking, and sometimes even recognizing, questions about culture, subjectivity, and social ordering that are enormously important to thinking about the problems that we now confront.

An alternative normative foundation for analysis of the networked self is supplied by the theory of capabilities for human flourishing, which advances an affirmative conception of human freedom. The capabilities approach has suffered, however, from the efforts of its leading exponents to distance themselves from a set of methodologies often lumped together under the heading of "postmodernism." Those methodologies offer tools for exploring precisely the questions about culture, subjectivity, and social ordering that have assumed critical importance for information law and policy. Provision of the core capabilities for human flourishing in the networked information society requires

careful attention to the interplay between systems of knowledge and systems of power and to the ways in which embodiment, spatiality, and the material realities of everyday practice mediate the production of culture and identity. The methodology developed here pairs the capabilities approach with disciplines that emphasize the mutually constitutive interactions between self and culture, the social construction of systems of knowledge, and the irreducible materiality of experience.

The Limits of Liberal Individualism

Within the tradition of liberal political theory, the legal subject—the self who possesses rights and is subject to regulation—has three principal attributes. He is, first and foremost, a definitionally autonomous being, possessed of abstract liberty rights that are presumed capable of exercise regardless of context. Second, the legal subject possesses at least the capacity for rational deliberation, and this capacity too is detached from context. In these respects, the legal subject is situated within a tradition of Enlightenment rationalism extending from Kant to Hegel to Habermas and Rawls. Whatever their internal disagreements, works within this tradition presume the existence of universal truths amenable to rational discourse and analysis. Finally, the selfhood that the legal subject possesses is transcendent and immaterial; it is distinct from the body in which the legal subject resides. As Katherine Hayles puts it, the liberal self has a body, but is not understood as being a body.[14]

The tradition of Enlightenment rationalism translates into templates for ascertaining schemes of legal right and obligation within which the forms of analysis that are most highly prized are the most abstract and decontextualized. Within the contemporary legal academy, the parameters of theoretical debate are shaped by the fault lines between economic analysis and theories of rights. Consistent with Kant's categorical imperative, rights theorists focus predominantly on specifying, via logical derivation, the sort of treatment that the legal subject should have a right to expect from a regime of legal rights and obligations. Economic theorists profess themselves to be concerned primarily with overall efficiency in the production and distribution of social resources, and with factors that might produce distortions from the optimum production and distribution. Within economic analysis, however, the engine of production and distribution is the liberty possessed by the legal subjects of whom society is constituted.

Proponents of these approaches vigorously debate among themselves whether one approach or the other is better; for my purposes, however, the similarities are more important than the differences. Their normative heft derives from a small number of formal principles and purports to concern questions that are a step or two removed from the particular question of policy to be decided. The purported advantage of both approaches is neither precisely that they are normative nor precisely that they are scientific, but that they do normative work in a scientific way. With respect to copyright and privacy in particular, neither rights nor utility functions need be specified directly in terms of the content of culture or the nature of socially embedded subjectivity. The theories manifest a quasi-scientific neutrality as to law that consists precisely in the high degree of abstraction with which they facilitate thinking about processes of cultural transmission.

Within the mainstream of copyright scholarship, most scholars have assumed that a grand theory of the field must be grounded either in a theory of rights or in a theory of economic analysis. Within both approaches, a theory of "authorship" as internal and essentially unknowable derives straightforwardly from the liberal individualist paradigm. When pressed on the question of engagement with the particulars of creative processes, scholars of both persuasions sometimes respond that richer descriptive and theoretical models of creativity do not themselves dictate any particular arrangement of legal rules. Deriving such rules requires a theory of the good that we are trying to pursue; that theory, or so we are told, can come only from rights-based theories or from economics.[15] Each side then claims that the other really lacks normative sufficiency. Rights theorists note that economic analysis requires a priori specification of some utility function, while economic theorists observe that rights theorists are equally dependent on unproved and unprovable preconceptions about natural rights. This disagreement, however, reveals broader agreement on the importance of identifying a small set of first principles encoding first-order normative choices, from which a normatively compelling framework for copyright can then be derived in relatively neutral fashion.

For the most part, both copyright scholarship and copyright policy making persistently overlook other (nonphilosophical, noneconomic) literatures that study artistic and intellectual cultures as phenomena that emerge at the intersections between self and society. This is not the result of ignorance; important work in copyright theory has considered these literatures and the opportunities that they offer to scholars interested in understanding creativity and creative practice. The mainstream of debate about copyright theory and policy, however, tends to ignore or discount the well-established humanities and social science methodologies that are available for investigating the origins of artistic and cultural innovation. The best explanation that I have seen for this aversion highlights an assumption about first principles shared by copyright theorists on both sides of the rights/economics divide: to emphasize the endogenous relationship of self to culture is to introduce a large set of unruly complications that undermine foundational premises about individual autonomy and that threaten to undo policy analysis entirely.[16]

Similar commitments are evident in privacy theory, but in privacy theory, the cracks in the foundation of the liberal edifice have been harder to conceal. Efforts to define privacy as an individual right cognizable within the parameters of liberal rights theories have been dogged by incompleteness. Scholars have advanced a number of different formulations, including accessibility, control, and intimacy. As Daniel Solove demonstrates, however, such formulations are always too broad or too narrow.[17] It is impossible to identify a single, overarching principle that applies in all situations—which, in turn, means that non-neutral, context-specific rules of decision must be employed to decide when a "privacy" interest is triggered. While this is not necessarily a problem in any absolute sense, it is an enormous problem within the framework of liberal rights theory, which demands that formulations of fundamental rights be both abstract and complete.

These problems of over- and underbreadth lead other scholars to conclude that what we refer to as rights of privacy are really property rights or liberty interests in disguise. In the domain of rights theory, that result is consistent

with Anglo-American legal theory's Lockean roots; it recasts privacy as a corollary to self-ownership and ownership of private property. Concepts of "property" and "liberty" map more directly to the perceived boundaries of things, places, and persons, and therefore seem analytically crisper. In the domain of economic analysis, meanwhile, reducing privacy rights to liberty interests aligns with the commitment to presumptively efficient social ordering through markets. Within a utilitarian framework, private-sector practices that devalue privacy do not represent a failure of liberty, but rather the efficient aggregation of preferences. A consequence of both approaches is that "privacy" makes most sense as a derivative or second-order concept, to be honored only to the extent that it is consistent with other, more fundamental principles.[18] It becomes easy to see both why privacy must be "balanced" against other interests and why the balancing should be less rigorous than when more fundamental rights are directly implicated.

Comparative and sociological theories of privacy abound, but to most U.S. legal scholars, such theories seem only to confirm privacy's status as a second-class right. Both the Continental European privacy tradition and work by some U.S. moral philosophers ground privacy rights in considerations of human dignity and personhood that are not readily amenable to analytic reduction. Other U.S. scholars have tried to fashion a relational vision of privacy by drawing on sociological research on human interaction.[19] For the most part, liberal privacy theory's answer to these recurrent intellectual assaults has been to play one off against the other. Emphasizing the ways in which privacy is socially constructed poses immense conceptual problems for efforts to theorize privacy as a right cognizable within the parameters of liberal theory. Accordingly, legal theorists of privacy have tended to read the sociologically informed theories of privacy as fatally undermining privacy's claims to status as a fundamental right. Dignity-based theories of privacy rights, meanwhile, are faulted not only for failing the threshold requirement of analytical simplicity, but also for sociological reasons. Cultural conceptions of dignity are not uniform, and therefore (or so the reasoning goes) dignity cannot serve as the foundation for a rigorous, analytically coherent conception of privacy. The conclusion is clear: if privacy is a fundamental right, it cannot be socially constructed; if privacy is socially constructed, it cannot be a fundamental right.

More recently, some privacy scholars have begun to push against the constraints of abstraction and analytic reduction. Helen Nissenbaum's important work on privacy as shaped by "contextual norms of appropriateness and flow" seeks to force rights-based conceptions of privacy to engage the collective and contextual dimensions of privacy interests. According to Nissenbaum, one does not need a single theory of privacy to explore how privacy works in practice. To similar effect, Daniel Solove offers a conceptualization of privacy that is based on pragmatist moral philosophy and that therefore does not depend on identifying privacy's essence; in this account, privacy interests emerge from expectations generated by everyday experience. Both scholars, however, appear content to address context while holding the self constant, thereby ignoring the problem of evolving subjectivity and its relationship to contextual change. Theorists who articulate a "constitutive" conception of privacy, in which group I include myself, have attempted to relate privacy to the construction of subjectivity. Even so, thinkers in this group have continued to rely heavily on the rhetoric of liberal selfhood and its foundational presumption of autonomy.[20]

In legal scholarship on code, the rights/economics binary is subordinated to the related preoccupation with the dichotomy between liberty and constraint. Some scholars worry that code-based constraints threaten fundamental liberties of expression and association. Others think that code is simply a tool for the unproblematic reinforcement of private choices about the management of commercial activity. Both sides of this divide invoke a quintessentially liberal anxiety about the origin of regulatory authority. Whether code violates rights or impinges on the exercise of market liberties comes to depend centrally on whether it is viewed as an exercise of public or private power. Questions about the way that code regulates, and about its role within systems of social ordering more generally, are systematically overlooked. Most legal scholars who have attempted to address those questions seem to be methodologically adrift, casting about for tools that legal theory cannot itself supply.

Finally and importantly, in each of these literatures, the analytical constructs generated by liberal individualism are particularly seductive because the problems they address play out in the realm of "information." Information appears to be the ultimate disembodied good, yielding itself seamlessly to abstract, rational analysis. The networked information society appears to be the autonomous, rational, disembodied self's natural milieu, transcending the particularities of bodies, cultures, and spaces with equal ease. That view of the networked information society, though, is a nirvana fallacy—and not, when all is said and done, an especially attractive one. As we will see throughout the book, liberal individualism's commitments to immateriality and disembodiment make for both a very poor model of culture and a very poor model of self-formation, online as well as offline. Theorizing the networked information society requires systematic attention to the bodies and spaces within which individuals and groups reside and to the materiality of artifacts and architectures. That, in turn, requires perspectives drawn from outside the liberal tradition.

Information Rights and Human Flourishing

An adequate theoretical framework for information law and policy must allow the definition of rights without insisting that they be amenable to neutral, quasi-scientific reduction, and must permit formulation and discussion of instrumental goals without imposing the Procrustean requirements of utilitarianism. The theory of capabilities for human flourishing satisfies both requirements, and supplies the underlying normative orientation for the analysis developed in this book.

Let us begin by returning to the argument that deriving a normative model—of copyright, privacy rights, or anything else—requires a theory of rights or a theory of economics. It is important, first, to understand precisely what this argument claims. For rights theorists, the claim appears to be a relatively straightforward one about the importance of having a (deontological) political philosophy in which normative arguments can be grounded. In the case of economics, the parallel claim is not nearly as clear. Many practitioners of "law and economics" seem to think that they are doing (social) science as opposed to mere philosophy. But by that measure, the argument about the normative superiority of economics is a very odd one. If "economics" is understood to denote a social science methodology, then its normative valence is no greater than that of, say, sociology or anthropology. If the claimed superiority of economics is to have any basis, it must rest on a link to political philosophy that

those other disciplines lack. Within the framework of liberal political philosophy in which legal scholars are trained, the obvious candidate is utilitarianism, and so that is the political philosophy with which law and economics has become identified.

The contention, then, is that even if rights-based theories and utilitarian theories are lacking in descriptive power, together they cover the normative waterfront. Within economic reasoning, this move operates as a naked form of intellectual irredentism, which holds that any consequentialist theory of the good must be amenable to reformulation in the language of economics. Here the linked anxieties about neutrality and abstraction come bubbling to the surface; the idea seems to be that utilitarian analysis is the prototype case of consequentialism, a position which it claims both by virtue of its high degree of abstraction and its ability to define away problems of judgment. Rights theorists subscribe to these assumptions largely out of uninterest in and dissatisfaction with consequentialist reasoning generally; for rights theorists, all consequentialist theories are normatively indeterminate. But the underlying assumption (on both sides) that any consequentialist theory must be grounded in economics is false. The universe of consequentialist theories is not coextensive with the universe of utilitarian ones.

In particular, the tendency to conflate consequentialism with utilitarianism ignores versions of consequentialism that use rules other than utility maximization to decide on good outcomes. Rule consequentialism enables formulation of instrumental goals without imposing the artificial constraint that the resulting improvements in human well-being be amenable to expression in terms of utility, and therefore perfectly or even approximately commensurable. And it enables the discussion and definition of the rights that human beings should be entitled to expect without imposing the artificial constraint that these rights be logically derivable from a small handful of first principles. More generally, rule-consequentialist theories of the good need not assume, and do not require, the autonomous, rational, disembodied liberal subject.

One such theory is the capabilities approach developed (in different ways but along parallel paths) by Amartya Sen and Martha Nussbaum.[21] The capabilities approach takes as its lodestar the fulfillment of human freedom, as some theories of legal rights do, but it defines freedom in terms of the development of affirmative capabilities for flourishing. Thus defined, freedom is not simply a function of the absence of restraint (or negative liberty), but also depends critically on access to resources and on the availability of a sufficient variety of real opportunities. Because of those requirements, moreover, freedom and equality are integrally connected within the capabilities approach. Equality is not simply a matter of making distributive adjustments here and there once the basic structure of entitlements is decided according to some other set of criteria. Substantive equality is a fundamental concern, and a normative constraint on both rule structures and policy recommendations.

Specifically, the capabilities approach diverges from the prevailing modes of theorizing about human rights and human welfare in four important respects. First, it holds normative commitments closer to the surface and, consequently, more available for interrogation. In this, it compares favorably with economic theories, which tend to skip over the task of specifying initial utility functions. Second, the capabilities approach resists abstraction from the condi-

tions of everyday life and demands instead that claimed rights be defined to include the conditions necessary for real people to take full advantage of them. It therefore both demands resort to and provides a clear point of entry for the messy social science methodologies that legal scholars of information policy have resisted. Third, the capabilities approach embraces complexity and ambiguity; it does not expect the resolution of large policy questions to be easy. Accordingly, it is more capable of encompassing and articulating a framework for resolving the competing claims of incommensurable goods. Finally, because it emphasizes substantive equality as a condition of human freedom, the capabilities approach is especially well suited to theorizing about the linkages between rights, enabling conditions, and social justice.

Within the legal literature on information policy, there is evidence of a recent turn toward explicit adoption of the capabilities approach. Leading works include Yochai Benkler's treatment of the linkages between information policy, information markets, and human freedom; Margaret Chon's work on intellectual property and development; and Madhavi Sunder's exploration of the intersections between intellectual property, the Internet protocol, and identity politics. The theories advanced by these scholars differ in many respects, but are consistent in their commitment to at least the principles just described.

Application of the capabilities approach to matters of information policy is complicated, however, by two sets of considerations that relate to broader crosscurrents in twentieth-century intellectual history. The first is the relationship between the capabilities approach and liberal political theory. Both Sen and Nussbaum are firmly committed to locating the capabilities approach within the evolving traditions of liberal political economy and philosophy. Benkler likewise situates his work squarely within those traditions. Chon, and Sunder to an extent, think that a deeper and more rigorous engagement with postmodernist explorations of culture is essential to evaluating the effects of copyright on human flourishing in the way that the capabilities approach requires, but theirs is clearly a minority position. Nussbaum and Sen, and Benkler to a lesser degree, appear concerned to show that their approaches do not derive from, or require endorsement of, a standardless postmodernism.[22] Yet (as the next section will discuss) that stance rejects rather a large amount of recent thinking on the topics of culture and subjectivity, and on their relationship to the questions of freedom and equality with which the capabilities approach is centrally concerned.

Second, the capabilities approach has been criticized as lacking in analytical rigor. Some scholars charge that it generates an endless list of wants and elevates them all to the status of rights.[23] It should be noted, first, that this argument is a variant of the view, discussed above, that equates analytical rigor with quasi-scientific reductionism. It is not obvious why a theory of human flourishing that generates simpler insights should automatically be more right than one with prescriptions that are complex. Assuming for the sake of argument, however, that some amenability to analytical reduction is useful, it is precisely here that looking beyond the liberal canon becomes essential; examining the individual experience of the networked information environment can supply empirical and theoretical perspectives on the structural conditions for human flourishing that the logical methods of liberal theory cannot.

Interrogating Complexity: Culture, Materiality, Geography

Elaborating a rigorous, empirically grounded theory of capabilities for human flourishing in the networked information society demands attention to an array of social science methodologies that provide both descriptive tools for constructing ethnographies of cultural processes and theoretical tools for modeling them. These methodologies are diverse, but share a number of common attributes. They prize empiricism above logical derivation from so-called first principles, and the forms of empiricism that are prized most highly tend to be qualitative and ethnographic rather than quantitative and abstract. They generate theoretical models of social and cultural processes that are subtle and complex, and that tend not to be amenable to mathematical reduction. They recognize that because cultural practices and institutions are evolving and endogenously constituted, scholars wishing to understand them must pay careful attention not only to the forces of rational self-interest but also to practices of rhetoric, representation, and classification. Finally, they emphasize the importance of the material realities of everyday practice.

Recall, first, the problem of the "cultural environment." The project of establishing descriptive and normative foundations for cultural environmentalism has been hampered by legal scholars' reluctance to engage culture in its own right, without the filters supplied by simplistic economic models or by more complex models derived from the life sciences. The resistance to culture is itself culturally determined; it is a product of a particular liberal worldview that understands "culture" as a superfluous overlay that autonomous reason can transcend.[24] Assigning individuals and communities an "autonomy" that exists outside of culture is a mistake at the most basic level, however. Individuals and communities are constituted by the social and political cultures that surround them, and those cultural contexts in turn shape the forms of self-determination and participation that emerge.

Throughout this book I will canvass a variety of literatures that address the "culture" question. The approaches that I identify as most pertinent have in common an orientation that is broadly postmodernist, or in Bruno Latour's preferred terminology, nonmodernist: they reject fixed distinctions between culture and nature, between culture and self, and between culture and deeper social structure. Instead, they focus careful, critical attention on the "hybrid" assemblages that emerge where politics, economics, technology, ideology, and discourse intersect.[25] On this understanding, culture is not a fixed collection of texts and practices, but rather an emergent, historically and materially contingent process through which understandings of self and society are formed and re-formed. The process of culture is shaped by the self-interested actions of powerful institutional actors, by the everyday practices of individuals and communities, and by ways of understanding and describing the world that have complex histories of their own.[26] The lack of fixity at the core of this conception of culture does not undermine its explanatory utility; to the contrary, it is the origin of culture's power. As Terry Eagleton puts it, "cultures 'work' exactly because they are porous, fuzzy-edged, indeterminate, intrinsically inconsistent, never quite identical with themselves, their boundaries continually modulating into horizons."[27]

A few caveats are in order here. First, I do not mean to suggest by this cavalier juxtaposition of Latour and Eagleton—two very different scholars—

that social and cultural theorists offer a single account of "culture." Questions about the nature and origins of culture and the patterns of cultural change are hotly debated. My goal is not to take sides in those debates, but rather to identify and pursue common threads. What literatures that investigate the question of culture offer is something far more valuable than a universally agreed definition: they provide a tool kit for exploring questions about culture in ways that liberal political theory does not allow. That tool kit is an indispensable prerequisite for understanding and evaluating the cultural work that information law and policy do. Second, it is important to stress that culture is broader than the universe of artistic and intellectual activities with which copyright in particular is concerned. On occasion, however, I will use the terms "culture" and "cultural goods" as a simpler shorthand for the universe of artistic, intellectual, and informational artifacts and practices. Sometimes one simply needs a word to use.

Next, recall the contradictions between openness and privacy that have bedeviled legal scholars and open-access advocates. If we replace the autonomous, rational, disembodied self with the subject who exists within and is constituted by culture, the contradiction diminishes. Policies restricting information flow become, at the very least, a legitimate subject for public discussion. So too with policies and practices regarding the collection and processing of information about individuals and communities. Raw information, especially in great quantity, is not terribly useful to anyone. Information must be sorted, categorized, and processed, and those activities impose particular, culturally determined categories and values. Concepts like "surveillance" and "privacy" cannot be understood without exploring the origins, purposes, and effects of socially situated processes of sorting and categorization. Throughout the book and particularly in the discussions of privacy, I will draw on literatures in information studies and surveillance studies that investigate those questions.[28]

Attention to patterns of everyday experience within the emerging networked information society suggests, however, that focusing simply on the cultural meanings of information, and on the categories developed by information-processing practices, is not enough to illuminate either culture or subject formation. The information society is not simply an abstract collection of categories and privileges; its inhabitants exist within real spaces and experience artifacts and architectures as having material properties. Understanding how networked information technologies affect cultural processes requires attention to the material and geographic effects of network protocols and networked processes.

As we have already seen, legal scholarship on these issues traces its roots to the analytic framework self-styled as the New Chicago School and extended into cyberlaw studies by Lessig. As elaborated in *Code*, that framework recognizes four primary "modalities of regulation": the market, norms, law, and architecture (or "code"), and holds that regulation inheres in the interactions among them.[29] In particular, cyberlaw's distinctive contribution to the legal literatures on regulation and governance has been to establish the central importance of technical sites for the production and extension of power.

The irony in this parallel is that the field of cyberlaw has developed in near complete isolation from several other fields whose literatures might shed useful light on those issues. One is the umbrella field known as science and technology studies (STS). The insight that artifacts constrain ("regulate") behavior has a long history within STS, and is mined within that literature in far

subtler ways. STS scholars reject the assumption that technologies and artifacts have fixed forms and predetermined, neutral trajectories. They argue that this analytical "black boxing" of technologies and artifacts conceals the extent to which they are socially shaped. In Carolyn Marvin's words, new technologies in particular have no "natural edges," but instead serve as focal points around which the self-interested behaviors of existing groups coalesce.[30] As power struggles are resolved, or confined within narrower parameters, artifacts and protocols assume a more definite form that both embodies and conceals the terms of resolution.

One cannot explain how code regulates—and, critically, how it comes to regulate in one way rather than another—without harnessing the insights of STS. In particular, one cannot make sense of developments in either surveillance or network architecture more generally without interrogating the ways that information protocols and networked devices are reshaping our spaces and practices, encoding new path-dependencies and new habits of behavior. The credo that "code is law" recognizes that Internet technologies encode an especially powerful and peculiarly invisible form of behavioral discipline, but it does not acknowledge that these technologies also form the material substrate within which complex social patterns take root. Throughout the book, I will draw on the various literatures in STS to explore the emergence of networked information architectures and associated social and institutional practices. One of the foundational texts in STS is Langdon Winner's meditation on whether particular artifacts can be said to have a politics that has more definite consequences for the organization of society.[31] I will consider that question in the context of emerging architectures for implementing surveillance and regulating access to networked information resources.

In addition, the literatures in both STS and cultural studies explore the roles that bodies and embodiment play in processes of sociotechnical ordering. Both the possibilities offered by emerging technologies and the path-dependencies encoded within relatively hardened technologies and artifacts are experienced in ways that are mediated by embodied perception. As we struggle to shape our technologies and configure our artifacts, they also and quite literally configure us, guiding us toward the well-worn paths that render the material a matter of habit.[32] As we will see throughout the book, processes of configuration play important roles in the construction of the emerging information society, shaping not only understandings of privacy, but also and more generally the experience of agency within cultural, material, and social realms.

Finally, recall the assumption that cyberspace is a separate, malleable space, an assumption that has united otherwise different approaches to the regulation of information networks. The literatures in cultural geography and urban planning, which explore the ways that spaces function within cultures, complicate that assumption. Spaces are not preexisting, natural entities, but rather are produced by human activity in patterns that bear the imprint of political, institutional, and ideological influence. Surveillance practices have spatial dynamics of their own, and there is a sizable literature devoted to exploring and understanding those dynamics and their effects on individuals and communities. Literatures that explore the production of space and the patterns of spatial practice have important implications for our understanding of what cyberspace is (and is not), and I will draw on them throughout the book.[33]

The literatures on space and spatiality return us, finally, to the question of culture. Spaces and spatially situated practices play important roles in the construction of narratives about communities and nations, becoming concrete vehicles for the emergence of what Benedict Anderson has described as "imagined communities" organized around visions of shared cultural identity. On a more particularized level, social spaces can also serve as sites for experimentation with alternative models of social ordering. Michel Foucault called such spaces "heterotopia" and argued that they play important roles in the constitution of distinct societies.[34] Literatures that explore the spatially situated processes of cultural imagination inform my project in the most basic way: this book is about the imagined community of legal liberalism and about the ways in which that community has harnessed information technology and information policy to advance its own foundational narratives. My goal throughout the book is to draw attention to the processes of construction now underway and to place them in critical perspective.

The Power of Hybridity

Most legal academics are disciplinary magpies, collecting alluring bits of this and that and cobbling them together. Reasonable people can and do differ on whether that tendency is an asset or a liability. Rigid disciplinary loyalties have no place in the study of information rights and information networks, however. Scholarly fields like STS, cultural studies, information studies, and communications studies are themselves "interdisciplines"—fields that necessarily operate at the intersections between more sharply defined areas of inquiry.[35] In any serious study of the role of law in the networked information society, methodological eclecticism is not an indulgence; it is a necessity.

Since this book articulates a theoretical stance that is broadly postmodernist in orientation, and will concentrate on questions that legal liberalism has encouraged us to overlook, it is important to stress three additional caveats. First, postmodernist thought about the information society incorporates its own brand of purist myopia. Academic work in social theory often lacks law's resolute pragmatism. Too many such works find power everywhere and hope nowhere, and seem to offer well-meaning policy makers little more than a prescription for despair. One purpose of this book is to turn theory to pragmatic ends, exploring how postmodernist critique might produce an agenda for meaningful reform in our information policy. Power is inevitable and language slippery, but that should not mean that we have nothing to say.

Second, the approach that I have outlined necessarily entails some sacrifice of intradisciplinary nuance, yet I think that is all to the good. Often, postmodernism's love affair with convoluted academic terminology and its visible struggles with its own anxieties about fixity of meaning have made it easier to parody than to understand. That result is unfortunate, and one that scholars who hope to make a difference should seek to avoid. To the extent feasible, I have sought to avoid delving into relatively narrow scholarly disagreements about terminology and emphasis, and have sought instead to identify broadly shared insights about the ways that culture moves and the ways that artifacts evolve within society. My aim in this book is explain how paying attention to those core insights can further the goal of designing a just system of information policy and an architecture to match.

Finally, and perhaps most importantly, I do not intend to argue that liberalism's aspirations are necessarily either irrelevant or undesirable. Many of those aspirations—particularly those of fostering a critical, engaged citizenry and a dynamic, innovative culture—are important and well worth pursuing. My argument is that we will approach those goals, if at all, only by discarding some of liberalism's more problematic assumptions in favor of a larger and more eclectic tool kit, and only by developing a more satisfactory framework for making normative judgments about the consequences of our choices.

I do not pretend to be an expert in any of the fields upon which this book draws. I do claim to be something that is perhaps more useful: a committed skeptic and a determined resister of rigid disciplinary boundaries. The intellectual stance that I have in mind is neither strictly liberal nor strictly postmodernist, nor is it simply interdisciplinary, since the boundaries it crosses do not divide merely disciplines. At least as applied to problems of information policy, it offers legal scholarship the richness and concreteness that it has too often lacked.

Structure of the Book

The remainder of Part I takes up the project of reconceptualizing information policy in a way that puts the networked self at its core. Synthesizing strands from the disciplinary approaches identified above, Chapter 2 develops the elements of a framework for understanding the ordinary behaviors of embodied, networked inhabitants of the emerging information society. Within that framework, the world both off- and online is apprehended through the lens of *embodied perception*. Networked information technologies *mediate* both our embodied interactions and our perceptions, affecting the ways in which we understand our own capabilities, our relative boundedness, and the properties of the surrounding world. To understand the behaviors and motivations of networked, embodied selves, legal scholarship on the networked information society should largely abandon simplified theoretical constructs like "freedom of expression" and "freedom of choice," and instead focus on the ordinary routines and rhythms of *everyday practice*. In particular, scholars concerned with the domains of creativity and subject-formation should pay careful attention to the connections between everyday practice and *play*, including both the patterns of play by situated subjects and the ways in which culture and subjectivity emerge from the interactions between the ordinary and the unexpected.

The middle three parts of the book then investigate more systematically legal theory's failure to generate convincing accounts of the relationships between copyright and culture (Part II), privacy and subjectivity (Part III), and network architecture and social ordering (Part IV). Each part begins with a chapter exploring the ways in which commitment to the core tenets of liberal political theory has stymied efforts to generate convincing descriptive and normative frameworks for information law and policy. The critiques developed in Chapters 3, 5, and 7 also highlight some of the ways in which our habitual discourses about copyright, privacy, and network architecture signal the importance of bodies and spaces to understanding and formulating information law and policy.

Chapters 4, 6, and 8 situate the problems of creativity and culture production, subjectivity and subject formation, and network architecture and social ordering within the framework developed in Chapter 2. Chapter 4 argues that creativity is centrally dependent on the freedom to appropriate and experiment with artifacts and techniques encountered within the cultural landscape. A copyright regime that wishes to promote cultural progress cannot simply seek to promote stability in the economic organization of cultural production; it also must foster the cultural mobility on which progress depends. Laws and policies about "privacy" promote a different kind of mobility; as Chapter 6 explains, privacy preserves room for individuals and communities to engage in the contextually situated processes of boundary management by which subjectivity is formed. Critical subjectivity in particular requires breathing room within the interstices of social shaping. A society that wishes to foster critical subjectivity must cabin the informational and spatial logics of surveillance. Chapter 8 considers the interplay between mobility and fixity in the context of evolving network architectures, focusing both on the emergence of institutional and technical regimes for authorizing access to resources and spaces and on the increasingly seamless, invisible design of networked artifacts and processes. A society that wishes to preserve room for the mobility of everyday material practice should not automatically validate such developments, but instead should explore strategies for counteracting them.

Building from these subject-specific inquiries, Part V of the book considers the lessons that they suggest for information policy reform. Chapter 9 develops a set of structural principles that should inform the legal and technical construction of the emerging networked information society. *Access to knowledge* plays an important role within that vision, but access alone is not enough. To promote the well-being of the situated, embodied individuals and communities who inhabit the networked information society, a regime of information law and policy also should guarantee an adequate level of *operational transparency* about the ways that networked information processes and devices mediate access to information and services. In addition, it should promote regulatory architectures that are characterized by *semantic discontinuity*—by an interstitial complexity that prevents the imposition of a highly articulated grid of rationality on human behavior, and instead creates spaces within which the play of everyday practice can move. Chapter 10 concludes with some thoughts on strategies for putting this thicker and more complex vision of cultural environmentalism into practice.

Notes

[1] See, for example, Benkler, "Free as the Air to Common Use," 354–59; Boyle, "The Second Enclosure Movement," 33–40.

[2] Boyle, "A Politics of Intellectual Property."

[3] See, for example, Balkin, *Cultural Software*; Crawford, "The Biology of the Broadcast Flag," 621–29.

[4] See, for example, Landes & Posner, *The Economic Structure of Intellectual Property Law*, 71–84; Yoo, "Copyright and Product Differentiation."

[5] See, for example, Cohen, "Examined Lives"; Schwartz, "Privacy and Democracy in Cyberspace"; Solove, "The Virtues of Knowing Less."

[6] See, for example, Posner, "Privacy, Surveillance, and Law"; Strahilevitz, "Privacy versus Antidiscrimination"; Stigler, "An Introduction to Privacy in Economics and Politics."

[7] See Polly Sprenger, "Sun on Privacy: 'Get Over It,'" *Wired*, Jan. 26, 1999, http://www.wired.com/politics/law/news/1999/01/17538.

[8] This observation is not new. See Kennedy, "The Stages of the Decline of the Public/Private Distinction," 1354–56.

[9] See John Perry Barlow, A Declaration of the Independence of Cyberspace, Feb. 8, 1996, at http://homes.eff.org/~barlow/Declaration-Final.html; Johnson & Post, "Law and Borders."

[10] See, for example, Easterbrook, "Cyberspace and the Law of the Horse"; Volokh, "Cheap Speech," 1833–47.

[11] Lessig, *Code and Other Laws of Cyberspace*, 24–29. See also Reidenberg, "Lex Informatica."

[12] See, for example, Mann & Belzley, "The Promise of Internet Intermediary Liability"; Picker, "From Edison to the Broadcast Flag"; Picker, "Rewinding *Sony*."

[13] See, for example, Benkler, *The Wealth of Networks*; Lessig, *The Future of Ideas*, 120–40; Hunter & Lastowka, "Amateur-to-Amateur."

[14] Hayles, *How We Became Posthuman*, 4.

[15] See, for example, Lemley, "Property, Intellectual Property, and Free Riding,"1031–32; McGowan, "Copyright Nonconsequentialism," 1–5.

[16] See Benkler, *The Wealth of Networks*, 278–85. Unlike many others, Benkler does not duck the problem of culture, but instead tries to work around it by specifying a set of minimal conditions vis-à-vis culture that cohere most closely with the aims of liberal political theory.

[17] Solove, *Understanding Privacy*, 14–38.

[18] For the classic form of the argument that privacy rights are subsumed within rights to liberty and property, see Thomson, "The Right to Privacy." A provocative reading of privacy interests vis-à-vis liberty and property interests is Matheson, "A Distributive Reductionism about the Right to Privacy."

[19] Sociological theories of privacy include Post, "The Social Foundations of Privacy"; Schoeman, *Privacy and Social Freedom*. For an illuminating analysis of the differences between liberal and dignitary conceptions of privacy, see Whitman, "The Two Cultures of Privacy"; see also Bloustein, "Privacy as an Aspect of Human Dignity"; Reiman, "Privacy, Intimacy, and Personhood."

[20] On constitutive privacy, see Allen, "Coercing Privacy," 738–40; Cohen, "Examined Lives," 1424–25; Schwartz, "Privacy and Democracy in Cyberspace," 856–57. Solove's pragmatist theory of privacy is developed most fully in *Understanding Privacy*; for Nissenbaum's theory of privacy as contextual integrity, see Nissenbaum, *Privacy in Context*.

[21] The characterization of Sen's capabilities approach as consequentialist will, I hope, be relatively uncontroversial. The description of Nussbaum's capabilities approach as a consequentialist one is somewhat more unusual, but I think it is justified. Nussbaum roots her understanding of capabilities for flourishing in a theory of the good life that is predominantly Aristotelian. Within that theory, the ultimate good is a life that is lived in a particular way. Nussbaum's approach differs from Aristotle's in its egalitarianism, which translates into a concern for distributive effects.

[22] See, for example, Sen, *Development as Freedom*, 247; Nussbaum, "Public Philosophy and International Feminism," 770–73; see also Benkler, *The Wealth of Networks*, 279–85 (advancing an account of culture developed from within liberal political theory). As to Chon and Sunder, the pun is very much intended; their greater skepticism toward the liberal tradition is no accident.

[23] See, for example, Sugden, "Welfare, Resources, and Capabilities." Other scholars argue that the theory's egalitarian prescriptions would operate to society's ultimate detriment by draining away social resources and impeding innovation. See, for example, Epstein, "Decentralized Responses to Good Fortune and Bad Luck"; Stein, "Nussbaum." This, of course, depends rather substantially on how social utility is measured.

[24] For illuminating perspectives on liberalism as culture, see Paul Kahn, *Putting Liberalism in Its Place*; Taylor, *Modern Social Imaginaries*.

[25] See Latour, *We Have Never Been Modern*, 1–12, 39–47.

[26] See, for example, Bourdieu, *Distinction*; DiMaggio, "Culture and Cognition"; Foucault, *The Archaeology of Knowledge*; Giddens, *The Constitution of Society*.

[27] Eagleton, *The Idea of Culture*, 96.

[28] See, for example, Bowker & Star, *Sorting Things Out*; Gandy, *The Panoptic Sort*; Lyon, *Surveillance Society*.

[29] Lessig, *Code*, 86–95.

[30] Marvin, *When Old Technologies Were New*, 4–8.

[31] Winner, "Do Artifacts Have Politics?," in *The Whale and the Reactor*, 19–39.

[32] Different perspectives on that process include Dourish, *Where the Action Is*; Haraway, *Simians, Cyborgs, and Women*; Ihde, *Bodies in Technology*; Verbeek, *What Things Do*; Woolgar, "Configuring the User."

[33] On culture and the production of space, see for example, Harvey, *The Condition of Postmodernity*; Lefebvre, *The Production of Space*; and Soja, *Postmodern Geographies*. On surveillance and spatial production, see, for example, Foucault, *Discipline and Punish*; Lyon, *Surveillance Society*; Ball, "Exposure"; and Koskela, "The Gaze Without Eyes."

[34] See Foucault, "Of Other Spaces"; Hetherington, *The Badlands of Modernity*, 20–40.

[35] For a useful perspective on interdisciplinarity, see Garber, *Academic Instincts*, 72–79.