

1 Introduction

In October 1999, a small group of hackers¹ developed the program DeCSS (for “Decrypt Content Scrambling System”) to crack the encryption system on commercial DVDs and posted the software and its code on the Internet, distributing it worldwide. The DeCSS source code and the DeCSS application served as tools for those individuals designing DVD players for computers running on the Linux operating system. Because all DVD players must have a way of decrypting the information on a DVD before they can play the movie, DeCSS was invaluable in developing early DVD player technology for computers using operating systems other than Windows or Mac OS (Warren 2005).

The DVD Copy Control Association (a consortium of copyright interests such as movie studios who license CSS), following the release of DeCSS in 2000, mounted a legal campaign against Internet sites publishing the DeCSS code, distributing the application, or linking to sites distributing the application and code. They argued that DeCSS violated the Digital Millennium Copyright Act (DMCA) of 1998² by allowing the circumvention of technology designed for copyright protection and by promoting unsanctioned copying and distribution of protected material.

Despite mounting legal pressure, supporters of DeCSS started a legal campaign of their own, arguing that as owners of the content on DVDs they should have access to those data and be allowed to make copies for personal use. Furthermore, some DeCSS supporters mounted a campaign of civil disobedience in defiance of court orders to remove the DeCSS code from their Web sites. One such activist, David Touretzky, argued that the court sanction was a violation of his right to free speech and posted a gallery of CSS descramblers. On his Internet site, he made available the CSS descrambling code in verse form and as a recording of a person singing the descrambled code to music (Touretzky n.d).

Examples of hacks against copy-protection/access-protection technologies and mobilization against a host of regulations and business practices that limit consumer access and use over legally purchased cultural products have become common since the days of the DeCSS controversy. These types of activism challenge long-held industry and legal perspectives on what the roles of users and media consumers are in relation to the products produced by the cultural industries. This book undertakes a historical analysis of legislation and case studies that demonstrate the origins, themes, and structure of digital rights activism as it emerged in the late 1990s and early 2000s. The analysis points to a coordinated movement that seeks to ensure a culture of participation in media products: what I call the “digital rights movement.”

So far as social movements go, the digital rights movement is not especially well known among broader publics—not in the same way as, for example, antiglobalization movements that have made headlines in recent years. It is, however, a movement nonetheless and one that is of increasing importance to a broad base of new and old media consumers. In short, the movement is a concerted effort to ensure the rights of consumers and users of digital media and technology. The issues generally addressed include privacy, free speech, fair use, technological innovation, and first sale.

The struggle between digital rights activists and the content industry is novel for a number of reasons. First, it is highly technological, meaning that it is dependent on technology at least in part to implement some of its collective-action goals and to realize the kinds of social change it seeks. Furthermore, for the movement, digital technologies such as computer programs, the Internet, and media hardware are *both* the obstacles it faces as well as the means it uses in resisting/undoing the constraints on consumer use and access. Second, we should note the contingent nature of the term *digital rights* and point out that it refers to a broad set of practices that are not always or necessarily “digital.” Therefore, if we speak more broadly, the digital rights movement is concerned with culture (mass-produced culture) and control over its production.

In its analysis of the digital rights movement, this book addresses a number of tasks. First, it revisits the early legislative history of the DMCA, illustrating the policymaking process and showing its discursive construction and how lawmakers and content industry representatives in the 1990s imagined the World Wide Web (what was then called the National Information Infrastructure) and consumers therein. These imaginaries represent visions of the kind place the Web would become, the kinds of consumers who would traverse it, and the kinds of technology needed to make it run

smoothly. Blind spots in these imaginaries ultimately yielded laws (the DMCA in this case) that would be at odds with existing and emerging consumer practices. The historical analysis shows that the DMCA's formational discourse is the discourse of US copyright law, so the imaginaries deployed in moments of deliberation during the DMCA's formulation also reflect the rationalizing rhetoric of copyright writ large and its visions of cultural production. The DMCA, then, can be read as an instrument of the copyright statute in the United States (and abroad), bringing its rationale to bear on digital media, the Internet, and other digital technologies. This act and by extension copyright law are the laws in whose name many early prosecutions and lawsuits spurred activism in the case studies discussed in subsequent chapters.

Part II deals with case studies that are related to the DMCA and issues that activism against increased control over digital media have brought to light. The case of DeCSS is chronicled in some detail as are eBook hacks, iTunes hacks, and other forms of hacking orchestrated not only by single hackers, but by activist organizations. This second part is related to the first in that it shows how resistance to the outcomes of the legislative process took shape early on and how that resistance brought to light important issues for the movement, such as user-centered notions of fair use, free speech, and a discourse of consumer rights over content that are often bargained away in click-through agreements.

In the remainder of this introduction, I discuss the implications, issues, and themes related to the events and topics discussed throughout the text.

What Does It Mean to Think about a Digital Rights Movement?

This work is necessarily historical (though not exactly a history) and should be read as a picture of the digital rights movement as it was when it first began to coalesce and take action (primarily against the DMCA and its excesses). When I first started writing about it in 2006, it seemed very much a movement about consumer rights in digital content, concerned primarily with the technological impediments to digital media consumption and the laws that abetted them. But today the movement is more than that. Activists have started referring to themselves as part of a free-culture movement, for example, because what started off as an awareness of the limitations imposed on consumer access and use of mass-cultural products parsed through digital media has become an awareness of increasingly stringent laws and technological measures that lock up access to the "cultural commons." It seems to me that the movement no longer pivots

on what technology and associated policy can or cannot allow in terms of consumption but now focuses on culture and what people believe access to cultural production (not just consumption) should entail.³ The movement today is as much about cultural change (a change to a culture that is participatory) as it is about legal and technological change and digital rights.

Not long ago legal scholar James Boyle presciently wrote about the possibility of such a movement. Commenting on the changes in intellectual property brought on by technological change, Boyle suggested that perhaps we are in need of a politics of intellectual property to protect the public domain from what he termed a “copyright land grab” (1997). He described this “land grab” as driven by new technological affordances present in emerging systems for distributing copyrighted works and for control over their use. When he wrote about these issues (fair use, participation, access to content, and the cultural commons in the digital world) in 1997, the fight over digital rights was just emerging, and he noted that those issues seemed to be fractured and affecting divergent populations (“software engineers, libraries, appropriation artists, parodists, etc.”). Boyle suggested that what the various stakeholders needed were “analytical frameworks” that would bring them together and address what appeared to be the inexorable logic of the current system.⁴ The analytical frameworks he suggested included first a critique of the failure in decision-making processes in formulating copyright law that gives the pretense of benefitting society but really ultimately benefits few and passes on the costs of failures in the system to the whole of society, an appropriate critique given the legal debates over copyright at the time he wrote his essay.⁵ The DMCA had just been formulated, and many legal scholars were starting to see, because of emerging case law and the policy process, that increased legal protections tied to technology measures were seriously endangering the public domain.

Boyle also proposed a critique of our (Western, US-based) concept of intellectual property as foundational for organizing intellectual products. He was especially critical of what he termed the “original author” concept, which he argued turns a blind side to the cultural commons from which such authors must draw. Most important, perhaps, he pointed to the need for a convincing rhetoric of the politics of intellectual property and the cultural commons, one that draws in not only directly vested actors, but also those who may not necessarily have considered themselves to be affected by the issues.

It seems that this process of formulating viable critiques is well under way today as activists have coalesced into a recognizable movement. For

example, in 2009 the Free Culture Forum organized by Exgae, Networked Politics, and the Free Knowledge Institute, three organizations working on digital rights issues, was held in Barcelona and gathered together a diverse host of activists, academics, and others from across western Europe and the United States. I was there as an observer, and I was interested in the conference for what it had to say substantively about the state of digital rights and how the discourse had changed. The migration of most of the cultural industry's products to digital media, the rise of a participatory ethos among the young, and the ever-increasing technological affordance and impediments to access cultural goods made the conversation more global. Now activists were demanding rights to access and use cultural products as well as to participate in production. These demands had even greater import when framed by long-standing debates over commercialization, mass production, and privatization of mass culture in its various forms.

What began in the United States as a debate over the acceptable limits of copyright in the digital age has morphed into a global debate about the acceptable limits of law in safeguarding cultural products for large corporations. Debates about net neutrality, copyright, digital rights management, and participatory audience practices are in essence debates about cultural ownership. Increasingly throughout the modern/modernizing world organizations, intellectuals and all manner of activists are weighing in, trying to articulate a number of "participatory rights" never before expressed by consumers.⁶ So one of the first things we can say when thinking about the movement is that its core goals make it more expansive in its impact than we might at first see. The movement is not about consumers consuming and the gadgets they need, but rather about developing a legitimating discourse in law and technology for participation in cultural production.

My conclusions about the meanings and means of the digital rights movement are: (1) activists, intellectuals, and organizations in the movement call for a culture that is participatory in mass-cultural products (requiring the ideological, legal, and technical affordance to realize such a culture); and (2) the means for achieving this culture are, as one would expect, institutional and extrainstitutional. This means that activists seek legal change both through traditional political venues such as the legislature and the courts as well as through nontraditional means such as protest and other forms of direct action.

On this last point, it bears pointing out that part of the extrainstitutional repertoire includes the design and distribution of technologies meant to counteract the effects of existing technolegal regimes (laws and

technologies that regulate user practices). These activities amount to more than hacking or “hacktivism” as it has been traditionally understood (Jordan 2002; Jordan and Taylor 2004) because such design practices are explicitly political, the technologies are explicitly meaningful (not just instrumental), and their presence in the ecology of resources available to the movement empowers the movement and individuals within it beyond what has traditionally been possible.

To put the second point more concretely, the practice of designing and distributing technologies that may, for example, circumvent copy-protection measures or work around existing paradigms for content distribution can be carried out by *individuals* and is not limited to organizations (a point that in itself is significant). So where once these kinds of impactful tactics would require large organizational resources, the possibility that a lone hacker can release a powerfully disruptive technology that is potentially widely adopted decenters the social movement organization (SMO) as a keystone for powerful collective action. More important, however, *the material presence of such technologies realizes the world they seek*. In other words, technologies such as those briefly introduced earlier in connection with DeCSS and discussed in later chapters of this book serve a double function. Their creation and existence can be read as a form of protest (so they are meaningful beyond their function), but they also realize part of the central goal the movement seeks: a culture that is participatory (with the tools to engage in participation).

Imagine as an analogy a movement like the one that led to the Americans with Disabilities Act⁷ in the United States, which required mobilization by persons living with disabilities. One outcome was that our cities' street curbs were redesigned to accommodate wheelchair access. This outcome required resources and extensive petitioning to city, state, and federal agencies. But imagine if those activists had circumvented the state and its resources and simply gone out and altered the curbs themselves both as an act of protest and as a way of realizing the world they sought.⁸

Designing technologies in the digital rights movement has the latter powerful effect. It allows for the creation of a parallel technological architecture and eventually parallel technolegal architecture when paired with changes in law or new licensing practices such as Creative Commons. For those familiar with Lawrence Lessig's work to develop the Creative Commons licensing scheme, one cannot help but see it as an elegant hack. Whereas some were busy hacking the technologies that prevented a culture that is participatory, Lessig and others hacked the licensing practices that worked in tandem. Thus, another important point that becomes evident

when thinking about the movement is that hacks matter in a structural and meaningful way: they have impact on the structure of activism; they have impact on the structure of consumption; and they have impact on the normative power of law.⁹

It should strike some readers how much this idea of participating in culture is like Henry Jenkins's concept of participatory culture. However, what I propose herein is not necessarily about participatory culture. I suggest that the movement's understanding of culture as participatory is subtly different from Jenkins's concept of participatory culture in studies of fandom and more recently in his and others' accounts of convergence culture, where an increasing number of consumers behave like producer and consumer at the same time (Banks 2005; Hartley 2006; Kucklich 2005; Postigo 2007, 2008). Specifically, the concept of participatory culture from Jenkins and others speaks of a culture of participation among subsets of content consumers. I would contrast this view of a participatory culture to the digital rights movement's notion of culture (the whole of shared meanings parsed through mass media and new digital technologies) as *necessarily participatory*. Culture for the movement is meaningless or increasingly alienated from a citizenry *unless that citizenry can participate in its production*. To understand the relationship between Jenkins's participatory culture and the movement's definition of culture as participatory, one might think of participatory culture as one of the means by which culture writ large may become participatory (other means might be legal or technological, formalized into the workings of society by institutions). It may be the case that the practices of participatory culture may someday be widespread enough that they become the way consumers see their relationship to mass media and the mass-media experience—they will see their hand in the products of the cultural industries. In that case, the two concepts—participatory culture and culture that is participatory—might converge. For now, they remain related but different.

Themes Explored in the Book

The Meaning of Fair Use and Related Legal Concepts

A key concept for the movement is "fair use," a legal concept first and foremost, but importantly for the movement in the United States a discursively powerful springboard for arguments about rights (participatory, creative, digital, cultural).

Twenty years ago the term *fair use* was not part of the popular vernacular. Teenagers and college students did not know and discuss fair use;

concerns over the particulars of fair use were the worries only of university information officers and librarians. Today, fair use has a pressing need to be understood by a broad number of publics. In 2005, the Supreme Court heard for the fifth time in its history a case where fair use was a defense for potential infringement of copyright (*MGM v. Grokster et al.* [545 US 913 (2005)]). The possibility of easily copying, distributing, publishing, and performing copyrighted content in digital formats has made fair use a real concern for both copyright owners and consumers of copyrighted material.

Although statute and precedent have established an approach for judging the merits of claims of fair use, it is an important concept beyond the strict confines of its statutory definition. As the digital rights movement took shape, activists conceived fair use in a user-centered fashion. Their interpretation of fair use sought to legitimize personal noncommercial uses (such as making back copies of songs) and noncommercial creative uses (such as remixing music and video tracks). When activists challenged the DMCA's anticircumvention provisions in court, they considered fair use to be a tool for ensuring free speech.¹⁰ SMOs, hackers, and other activists fought to capture free speech and fair use as representative values for the movement. Framing the digital rights movement as a movement for free speech and fair use was a key strategy because it positioned the movement's goals within accepted and cherished values in US society.

Copyright owners also deployed their own framing strategy, however, portraying hackers as criminals; fair use as a privilege, not a right; and the balance of copyright as sacrosanct. In many ways, fair use has been popularized by the prominence of this debate. The struggle between competing frames is the background over which the technologies that protect copyright and those technologies that circumvent protection clash in what has aptly been called a "code war" (Biegel 2001).

Fair use, then, is what social movement theory would call an important "master frame" in the digital rights movement. It conceptually brings together ideas that emerge about access and use of cultural products, creative rights, and participation into a narrative that can be ported beyond the movement to other publics. In many ways, the idea of fair use has allowed the movement to grow beyond its initial confines of digital rights to arguments about free culture.

Technology as Enforcement

Lawrence Lessig and others have pointed out the role that code plays in regulating or acting as a surrogate/partner for enforcing legal regimes. In

this book, the concept of technology or code as law is further explored, but with an eye toward its meaningful place as an obstacle for the movement. In other words, the insights of viewing code and any technology as potentially regulatory are not rehashed here for what they say about society as a whole but rather for what they say about what the movement must confront. Put more succinctly, the digital rights movement, unlike many other social movements, confronts not only legal regimes, but technological regimes as well, some of which exist outside the reach of traditional institutional mechanisms for social change (lobbying, for example).

In Lessig's oft-cited model of the regulatory power of code (Lessig 1999), the individual is seen as a dot at the center of four modalities: norms, the market, law, and architecture or technology. With each modality exerting pressure on the individual, behavior is a result of the sum of the various pressures. Lessig noted that the dot was "pathetic" because its actions were at the whim of these modalities. Technological enforcement as a regulatory strategy, then, applies the structuring force of technology to the individual. Lessig argued that if citizens did not voice their preferences over the kinds of code that would be used to make up the Internet, that code would regulate behavior in ways that might be inconsistent with societal values. He posited that law might be used to shape technology (or code) in ways that are consistent with democratic principles, but he warned that code was so far being used to constrain behavior in ways that are not consistent with a democratic society.¹¹ This line of thinking can also benefit from the insights of science and technology studies.

The strategy of technological enforcement, as it is explored in the legal studies literature, is concerned primarily with technological enforcement's deterministic effects. It is related to the technology studies tradition that theorizes about how technologies come to structure the actions of individuals and societies. Technological enforcement is most prominently related to Langdon Winner's (1985) concept of the politics of technological artifacts. Winner's view is that much of the built/technological world either intentionally or unintentionally embodies power relations and worldviews that are consistent with the society and people who implement and design such technological structures. Therefore, technologies, through their use, subject the user to acting out those worldviews and power relations.¹² Because technologies linger throughout a society's history, they can continue to reproduce specific worldviews and ideologies invisibly over generations. This view is partially deterministic in its suggestion that society and individuals conform to technological structure imposed on them or that technology shapes society. The deterministic stance is countered by

the understanding that society does indeed have a choice in technologies and a hand in its own technological regulation.

Winner's work goes hand in hand with the work of Richard Sclove (1995), whose central proposition is that society ought to make technological choices that are consistent with "strong democracy."¹³ Sclove's call for democratic technologies suggests that the consequence of ill-conceived technological systems is the loss of democratic principles and institutions. Winner (1985) proposes a similar consequence of technological choice, noting, for example, that nuclear power necessitates a host of government and civil institutions to ensure its safe and secure use. Such institutions may necessarily infringe on privacy, increase secrecy in society, and have a whole set of unintended consequences for democratic institutions.

These issues are pertinent for the analysis of technological enforcement as an obstacle confronted by the digital rights movement because technologies that solidify positions in an ongoing legal debate (digital copy controls in the digital copyright debate) are potentially oppressive. Those who are not in a position to design technologies of their own or who are not in a position to participate in the policymaking process are effectively locked out of democracy. Furthermore, if technological enforcement is widely adopted, it becomes commonplace, and the behaviors that it regulates become more difficult to debate.

Responding to Technology—Resistance through Technology

This book also examines the use of hacking as technological resistance, a powerful extrainstitutional tactic for the digital rights movement. Technological resistance is a strategy wherein users/hackers design and deploy politically motivated technologies that challenge the digital copyright enforcement regime. Technological resistance is the opposition of technological enforcement by technological means expressly designed for such a purpose. Exploration of the technological enforcement/technological resistance dichotomy illustrates the regulatory force of technology, the role that government or other institutions may play in the design of technology, and how social movements can use the deterministic power of technology to counter regulatory attempts.

Technological resistance works against technological enforcement and the assumptions about behavior that technological enforcement embodies. It is the technomaterial expression of counterculture or counternorms. Technological resistance technologies¹⁴ are used to counter technology-protection measures and the laws they espouse. By focusing on technological resistance, I deviate from what has become a dominant approach to

understanding the role of technology in regulation. The majority of analysis on the subject has occupied itself with understanding the role of technology in regulation and how government has been using this strategy in digital copyright enforcement. In contrast, I approach the role of technology from the perspective of individuals who are trying to resist or subvert regulation with technology of their own. Technological resistance is the logical response to law embodied in and enforced with technology. The implications of this conclusion are potentially troubling because if technology is a powerful tool to resist unfair regulation, then only technologists have the know-how to exercise that power.¹⁵

Technological enforcement is an effective strategy for regulation because it has the power to settle ongoing debates about the balance of copyright, even though the balance of copyright ought to be an issue that is always debated and reexamined. On issues that ought to be always debated, should we want technology to enforce laws? Do we want to technologically close off issues that are continuously reshaped by courts? These questions are important to consider because the permanence of technology will make changes in the legal world more difficult to implement. As a consequence, the use of technological resistance will be a strategy for change that will become increasingly important in society.

User Agency and Technology

One last theme that runs through much of the discussion in this book is user agency. Although not something I discuss explicitly, the idea of user agency undergirds considerations of why users, their views on the use of the technology meant to mediate content matter, and their own conceptions of how technology should be used are factors that lawmakers and the content industry should consider. This theme is informed by research in technology studies that concerns itself with how society eventually comes to use technology. Informed by theories on the social construction of technology, the idea is that there is a period of negotiation among stakeholders in the design of a technology in which the meaning and use of the artifact are in flux, but after which the technological use and meaning become fixed. Responding to technological “closure,” other research has pointed to the fact that many technologies and the systems they are embedded in are seldom completely “closed” to interpretation and appropriation and that users in fact continue to negotiate use and meaning long after a technology is release out in the “wild.”

The question, then, becomes one of understanding users’ motivation and the means by which they effectively resist closure. How do they come

to exercise agency? In this book, users are considered a contested concept in the minds of activists, policymakers, and the content industry. All these players continuously define user identities, and all those identities are admittedly present within the panoply of consumers actually using and consuming media. The issue of user agency becomes important when a certain number of those users can effectively appropriate or redesign technology, which is then recycled into mass consumption.

This issue reflects the idea that users and technology are co-constructed. In the same fashion that, say, early computer hobbyists were constructed or imagined by designers and then assumed new roles as personal computers evolved, so, too, users of digital technologies were imagined but then assumed new roles, thus pushing digital technologies in new directions (Lindsay 2003). In the case of the digital rights movement, user agency is particularly powerful (if it were not, the content industry would not be spending billions in lawyers, lobbyists, and technology to limit it). Hackers and other less technologically savvy users are constantly seeking out ways to make existing technologies fit their personal expectations. Thus, as shown in later chapters, technologies such as hacks to eBook encryption and the iTunes digital rights management (DRM) system find a receptive user base among consumers who use these hacks to reclaim access or convenience in content consumption. In many cases, these technologies also allow for participation, which means they also may serve to construct uses: the user and the technologies of content consumption are cocreated as users discover ways of appropriating appropriation technologies.

This final point can be made clearer by considering the ways in which iTunes DRM system hacks themselves became reconfigured. Apple designed its DRM system to govern music consumption, conceptualizing a kind of music consumer in the process. Hackers who hacked the DRM system had their own visions of iTunes users (as consumers who would want to do more with the music than the iTunes end-user license agreement [EULA] would allow). Users themselves then did something else. Although the EULA was concerned with controlling the number of copies of a song, and the hacks to the DRM system undermined Apple's ability to enforce the EULA, some users didn't hack the DRM system simply so they could make more copies, but rather so that they could incorporate a song into a video they had made or sample the song for a DJing project. If these cases show us anything about user agency and technology, it is that technological meaning and functionality are open for interpretation and appropriation.

User agency also implies resistance to configurations of expected uses and to regulatory mechanisms. Because DRM enacts state policies, contracts, and copyright, it becomes important to see resistance through a technological lens and to configure technology not only as artifact, but as action, collective action.¹⁶ Thus, technologies such as DRM straddle a number of important social domains—law, culture, and consumption. Technologies such as iTunes hacks likewise straddle law, culture, protest, and participation: they occupy those domains both physically and meaningfully. They are important beyond their function.

