Contents

Editorial
In This Issue
Carol L. Barry

Research
Analysis of the Query Logs of a Web Site Search Engine
Michael Chau, Xiao Fang, and Olivia R. Liu Sheng

Users Want More Sophisticated Search Assistants: Results of a
Task-Based Evaluation
Udo Kruschwitz and Hala Al-Bakour

Metric for Web Accessibility Evaluation
Bambang Parmanta and Xiaoming Zeng

Who Posts DeCSS and Why?: A Content Analysis of Web Sites Posting DVD
Circumvention Software
Kristin R. Eschenfelder, Robert Glenn Howard, and Anuj C. Desai

The Reality of Media Preferences: Do Professional Groups Vary in Awareness?
Joette Steff-Mabry

Adoption and Diffusion of Encoded Archival Description
Elizabeth Yakel and JiHyun Kim

A Heuristic Method Based on a Statistical Approach for Chinese Text Segmentation
Christopher C. Yang and K.W. Li

Predicting Reading Difficulty With Statistical Language Models
Kevyn Collins-Thompson and Jamie Callan

Book Reviews

Papers published online in Wiley InterScience, 16 June 2005 through 9 September 2005
CONTENTS

EDITORIAL

In This Issue
Carol L. Barry 1361

RESEARCH

Analysis of the Query Logs of a Web Site Search Engine
Michael Chau, Xiao Fang, and Olivia R. Liu Sheng
Published online 31 August 2005 1363

Users Want More Sophisticated Search Assistants: Results of a Task-Based Evaluation
Udo Kraschwitz and Hala Al-Bakour
Published online 31 August 2005 1377

Metric for Web Accessibility Evaluation
Bambang Parmanto and Xiaoming Zeng
Published online 31 August 2005 1394

Who Posts DeCSS and Why?: A Content Analysis of Web Sites Posting DVD Circumvention Software
Kristin R. Eschenfelder, Robert Glenn Howard, and Anuj C. Desai
Published online 6 September 2005 1405

The Reality of Media Preferences: Do Professional Groups Vary in Awareness?
Joette Steft-Mabry
Published online 31 August 2005 1419

Adoption and Diffusion of Encoded Archival Description
Elizabeth Yakel and Jihyun Kim
Published online 1 September 2005 1427

A Heuristic Method Based on a Statistical Approach for Chinese Text Segmentation
Christopher C. Yang and K. W. Li
Published online 9 September 2005 1438

Predicting Reading Difficulty With Statistical Language Models
Kevyn Collins-Thompson and Jamie Callan
Published online 1 September 2005 1448

(Continued on next page)
BOOK REVIEWS

*Understanding Information Systems: What They Do and Why We Need Them*,
by Lee Ratzan

*James Kalbach*
Published online 16 June 2005 1463

*Annual Review of Information Science and Technology, Volume 38, 2004,*
*edited by Blaise Cronin*

*Candy Schwartz*
Published online 9 August 2005 1464
Who Posts DeCSS and Why?: A Content Analysis of Web Sites Posting DVD Circumvention Software

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This study explored why Web authors post the DVD decryption software known as DeCSS—specifically whether authors post DeCSS to protest changes in copyright law. Data are drawn from content analysis of Web sites posting the software. Most DeCSS posters did not include any content explaining why they posted DeCSS; however, no authors presented DeCSS as a piracy tool. Of sites containing explanatory content, many argued that DeCSS is a legitimate tool to play DVDs on free/open source computers. Other sites asserted that current copyright law is unjust, and that DVD-related corporations are engaging in undesirable behaviors. Based on the data, and theorizing from rhetoric and the collective action literatures, we assert that much DeCSS posting is protest, but it may not be copyright protest—numerous posters protest related issues such as freedom of speech. More research is needed to determine the significance of DeCSS posting to broader copyright policy debates including its relation to off-line protest, and the development of shared identities and cognitive frames. Also, the complexities of circumvention issues raise concerns about whether policy debate will be limited to elites. Finally, data point to the need to understand both international and local laws, norms, and events when studying copyright protest activity.

Introduction

In the last decade, copyright owners have increasingly produced intellectual works such as music and movies in digital forms. At the same time, computer and broadband networking technology has facilitated the creation and distribution of exact copies of digital works. Indeed, as a technical matter, the use of a digital work typically requires that a computer make a temporary copy of it (Litman, 2001).

Concerned that unauthorized copying and distribution of digital works would increase, representatives of large copyright holders such as the Motion Picture Association of America (MPAA) and the Recording Industry Association of America (RIAA) lobbied Congress to change U.S. copyright law to provide legal protection for copyright protection tools sometimes known as digital rights management systems (DRM) (Litman, 2001; Maxwell, 2004). Copyright holders use DRM to guard their works from unauthorized access or use. Critics charge that DRM, combined with license agreements, impinge on consumers’ traditional use rights for media (Lipinski, 2003).

Due to the prevalence of digital media, the legal protection of DRM has the potential to impact many consumers (Committee on the Judiciary, 2002); and many commentators claim that changes to copyright, including legal protection for DRM, will generate negative societal effects—stunting creativity and the production of new intellectual works (Lessig, 2002; Vaidhyanathan, 2001).

Some have suggested that there needs to be a social movement to roll back these changes to copyright law (Boynton, 2004; Tennant, 2001; Vaidhyanathan, 2004). Social movements have been defined as sustained contentious collective action by ordinary people against elites, authorities, and opponents (Tarrow, 1998). Theory distinguishes between short-term individualistic resistance and sustained and collective social action (Tarrow, 1998). In this article, we use
the term *protest* to refer to a general category of contentious action (short-term or sustained) in which actors express disapproval, objection, or dissent.

There is much evidence that groups have formed to protest copyright policy in recent years. Numerous existing information policy advocacy groups have added copyright issues to their menu of target policy areas (e.g., the Electronic Frontier Foundation) and new copyright advocacy groups have formed (e.g., www.digitalconsumer.org, http://www.personaltech.org/, www.publicknowledge.org, www.ipjustice.org, www.downhillbattle.org). Further, recent years have seen numerous protests against copyright holders (e.g., the Grey Tuesday Danger Mouse Grey Album protest) (Dean, 2004; Werde, 2004).

While the literature contains extensive analysis of copyright law and DRM tools, little research has empirically investigated protests related to copyright, or more specifically, to the new legal protection of DRM. We have little research about what actions, if any, people are taking to protest copyright changes. For example, we have little understanding of who joins copyright protests, the degree to which recent protests represent sustained action, the relationship among copyright protest groups, or the degree to which copyright protest activity has been successful in changing policy or public perceptions.

In this article, we begin to fill this research gap by examining a potential case of copyright protest—the Internet posting of software known as DeCSS. DeCSS is part of a larger class of tools known as “circumvention devices” that allow users to bypass the DRM that control access to, and copying of, digital works. DeCSS was created in 1999 by a group of European hackers, purportedly to allow free/open source (F/OS) computer users to play DVDs without resorting to use of a Windows-based computer (Bing, 2003; Williams, 2000). To do this, DeCSS breaks the DRM protection scheme on DVDs.

Posting of (or linking to) DeCSS opens Web authors to civil and criminal prosecution in the United States under the Digital Millennium Copyright Act (DMCA). Despite potential penalties, and despite the fact that DeCSS is now obsolete (Phillips, 2003; Stallman, 2002), Web authors continue to post DeCSS (Eschenfelder & Desai, 2004).

Some have suggested that DeCSS posting is a form of protest against changes in copyright law (Eschenfelder & Desai, 2004; Lievrouw, 2003); however, we have little empirical evidence as to whether DeCSS posters are motivated by political beliefs or by piracy interests or general thrill seeking. The goal of the research was to investigate participants in DeCSS posting, whether they post DeCSS to protest changes in copyright law, and to consider the implications (if any) of DeCSS posting for the broader field of copyright activism.

We conducted a content analysis of two samples of DeCSS posting Web sites, and drawing on theory from the collective action literature, tried to determine the degree to which DeCSS posting qualifies as protest against changes to copyright law.

We began our analysis with certain expectations. Our review of the literature suggested that circumvention devices have profound implications for use of copyrighted material. Further, the literature, including our own past research, suggested that at least some Web authors posted DeCSS because of political concerns (Eschenfelder & Desai, 2004; Lievrouw, 2003). We also recognized that DeCSS could be associated with piracy, or “cracking” (Eschenfelder, Desai, Alderman, Sin & Yi, 2005). We expected that DeCSS-posting Web authors who were not interested in piracy would include text explaining why posting DeCSS should be morally, if not legally, permissible. Further, based on past research, and the stories of the creation of DeCSS, we suspected a relationship between DeCSS posting and affiliation with the F/OS software community (Eschenfelder & Desai, 2004).

Our investigations focused on four questions:

1. To what extent do DeCSS posters explain their posting of DeCSS?
2. Where are DeCSS posters located geographically?
3. To what extent do DeCSS posters refer to copyright related law or regulation?
4. To what extent do the DeCSS posters refer to the F/OS community or F/OS software?

Surprisingly, we found that most Web sites did not contain any text or graphics related to DeCSS beyond the link to download the software. Of those posters who provided content related to DeCSS, many referred to F/OS concerns. Some posters referred to copyright law, but others referred to related concerns such as corporate behaviors and free speech. Few Web sites made specific reference to the DMCA or court cases stemming from the law. Importantly, we did not find that posters presented DeCSS as a piracy or cracking tool. We found that 21–39% of Web sites showed strong affiliation with the F/OS community.

In the next section, we provide a brief background about circumvention devices in general, and DeCSS in particular. We describe prominent arguments against prohibition of circumvention devices (like DeCSS) from the scholarly, professional, and popular literatures, and we explain the significance of DeCSS to the F/OS community. In the third section, we describe our methodology and we summarize our results in the fourth section. We conclude with a discussion of the implications of the findings, the limitations of the
research, and future directions for research on copyright protest.

**DeCSS and Digital Rights Management**

To discourage unauthorized access to and copying of digital copyrighted works such as DVDs, copyright owners began to use technological “locks” known as DRM technologies. The law distinguishes between two different types of locks: those that control access to the underlying work (“access controls”) and those that control copying of the work (“rights controls”). These locks, however, can be “picked” by software-based “keys.” The law refers to these keys as “circumvention devices” (United States Copyright Act, 2004, § 1201).

Viewing the protection of DRM as necessary to induce copyright owners to make their works available in a digital format, Congress passed the DMCA. In what are known as the anti-trafficking provisions, the DMCA prohibits the distribution of circumvention devices such as DeCSS.

The DRM protecting DVDs is a proprietary protection scheme known as CSS, which uses a combination of scrambling and encryption to protect the contents of a DVD. To play a protected DVD, one must use a licensed DVD player that contains a key to decode the protections. DVD player manufacturers obtain licenses and keys from the DVD Copy Control Association (DVD CCA; Taylor, 2001).

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1Violations of section 1201 of the Copyright Act are divided into two types. Section 1201(a) applies to “technological measure[s] that effectively control access to a work protected under [the Copyright Act].” For obvious reasons, we refer to locks protected by section 1201(a) as “those that control access to the underlying work” or “access controls.” Section 1201(b) prohibits the “manufacturing, importing, offering to the public, providing, or otherwise traffic[king]” in a “technological measure that effectively protects a right of a copyright owner under [the Copyright Act] in a work.” We refer to locks protected by section 1201(b) with the shorthand of “those that control copying of the work,” and this may require a little explanation. The principal “right[s] of a copyright owner” are found in section 106 of the Copyright Act. (Section 106A also includes certain rights, but these are not relevant for motion pictures.) They are: (a) the reproduction right (i.e., the right to make copies), (b) the adaptation right (also known as the “derivative works” right), (c) the distribution right, (d) the public performance right (limited to certain types of work, including motion pictures), and (e) the public display right (also limited to certain types of works, including motion pictures). Thus, strictly speaking, posting software that decrypts a lock protecting any of the rights included in the Copyright Act is prohibited. Though the phrase “those that control the copying of the work” is thus, in a literal sense, incomplete with respect to section 1201(b), we treat the phrase as equivalent to “rights controls” because the right most commonly thought of—and the primary one that the motion picture studios have used CSS to protect—is the right to make copies of a work.

2Circumvention itself is treated differently from the distribution of circumvention devices. While circumvention of an “access control” violates the statute, circumvention of a “rights control” does not. The portion of the law that prohibits the circumvention of an access control is known as the anti-circumvention provision. The subject of our study is posting DeCSS on a Web site, which the law views as distributing a circumvention device, not using DeCSS, which would constitute circumvention activity; and we have no data about our subjects participating in circumvention activity.

In late 1999, a group of European hackers released a program on the Internet that broke CSS without licensed keys. Known as DeCSS, the program literally “de-CSSed” DVDs (Bing, 2003). Many Web sites made mirror copies of the program or linked to other Web sites posting the program. One Web author to do so was Eric Corley, the primary operator of a well-known hacker magazine Web site (http://www.2600.com). In early 2000, a number of movie studios brought suit against Corley and other Web site operators under the DMCA’s anti-trafficking provisions. In August of that year, the court held that distributing DeCSS was a violation of the anti-trafficking provisions of the DMCA and prohibited the defendants from posting DeCSS and linking to other Web sites where DeCSS could be downloaded (Universal City Studios, Inc. v. Reimerdes, 2000). The court’s decision was upheld by an appellate court the following November (“Corley;” Universal City Studios, Inc. v. Corley, 2001).

Furthermore, under the administrative process established by Congress to create exemptions to the DMCA, the U.S. Librarian of Congress rejected requests to provide exemptions for circumvention of CSS, and he has not established any exemptions for the distribution of any circumvention tools (Library of Congress, 2003). Therefore, within the US, use and distribution of DeCSS arguably violates the DMCA.

**Critiques of Digital Rights Management Systems**

The Corley case sparked controversy about the prohibition of using and trafficking in circumvention devices, and this controversy drew on broader critiques of DRM and the DMCA present in the scholarly and popular literature. In this section, we review the most prominent criticisms. These arguments formed one basis for the content analysis codebook we used to analyze DeCSS posters’ Web sites.

**Fair Use**

The original American conception of copyright is based on the idea that copyright should “promote the Progress of Science and useful Arts” by establishing incentives, in the form of exclusive private rights, for the creation of creative...

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3Recognizing that the anti-circumvention rules contained in the DMCA might negatively affect consumers wanting to make noninfringing use of works, Congress required that the Librarian of Congress hold rulemakings every 3 years to make exemptions to the circumvention rules for classes of works when users are likely to be negatively affected by the prohibition [§ 1201(a)(1)]. It is currently unclear whether the exemptions include authorization to make (but not distribute) circumvention tools for those uses approved by the exemptions (Samuelson & Scotchmer, 2002).

4Strictly speaking, the appellate court’s decision in the Corley case constitutes binding precedent only in the three states within that court’s jurisdiction. Nonetheless, the court that issued the Corley decision is a prominent one, especially in copyright matters, and there have been no other court decisions in the United States that undermine the Corley court’s view that posting DeCSS violates the DMCA. Corley could have sought review of the appellate court’s decision in the United States Supreme Court, but the Electronic Frontier Foundation, which was representing him, decided not to do so.
works (U.S. Constitution, Article I, § 8, cl. 8). If promoting such progress is the goal, some unauthorized or "fair use" copying of copyrighted works is desirable to further creativity and innovation (Lessig, 2004; Vaidhyanathan, 2001). The law must thus be designed to balance protection for the copyright owner against the fair use rights of those who seek to use a work in ways that would further the underlying public goal of promoting creativity. Critics charge that digital rights management systems block fair use of protected material (Felten, 2003; Lipinski, 2003; Litman, 2001; Neal, 2002).  

First Sale

Digital rights management systems facilitate stronger control over access and use of works than previously possible with analog materials (Coyle, 2001; Lipinski, 2003). The physical properties of paper limit the usage restrictions that copyright owners can place on distributed copies of their works (Neal, 2002). The law recognizes what is known as the "first sale" doctrine, which permits the owner of a copy of a work to display, lend or resell that particular copy (United States Copyright Act, 2004, § 109; Calaba, 2002; Liu, 2001; Reese, 2003). Critics charge that DRM technologies, in combination with restrictive licensing practices, block a purchaser from transferring access rights along with the physical copy of a work when it is sold or loaned. Some charge that this is part of a larger copyright holder goal to move consumers to a pay-per-use distribution model where purchase of a work no longer includes unlimited use (Samuelson, 2003).

Free Speech and Innovation

Some argue that computer code (including circumvention devices) is a form of speech protected by the First Amendment and, as such, should not be regulated by the government (Tourtellzy, 2001). Opponents further charge that the circumvention device prohibitions will stifle professional and scientific communications about DRM-related tools such as encryption and watermarking (Grove, 2003; Lessig, 2002; Liu, 2003; Stallman, 2002), and that this chilling of speech will result in a decrease in innovation within the software industry (Felten, 2003; Samuelson & Scotchmer, 2002).

CSS, Unfair Licensing, and Region Coding

Critics also argue that the CSS licensing scheme gives copyright holders undue power over DVD player manufacturers, and is part of a larger business strategy to establish a regime of compulsory licensing of media players to benefit copyright interests (Samuelson, 2003; Simons, 1999).

Critics also charge that the licensing agreement supports price discrimination for DVDs. DVDs contain region codes that restrict access to the work to DVD players sold in particular regions of the world by requiring a match between the region code on the DVD and the region code embedded in a DVD player. The region codes allow copyright holders to discriminate among different parts of the world in terms of price and release date (Meurer, 2001). CSS license agreements typically require that manufacturers make their DVD players region code compliant (Taylor, 2001). Region coding is not limited to CSS protected DVDs, and it is considered a separate form of access control with its own set of circumvention questions (Library of Congress, 2003).

DeCSS and the Free/Open Source Software Community

DeCSS has been associated with the F/OSS community from its birth. Jon Johansen, one creator of DeCSS, and others have argued that DeCSS was created to facilitate viewing legally purchased DVDs on computers using the Linux operating system, because at the time no licensed DVD players for Linux existed (Bing, 2003). As a Linux Magazine author explained, "the primary motivation behind the . . . DeCSS hack was to give . . . open source software users the ability to play their lawfully purchased DVDs without resorting to a Windows-powered machine" (Williams, 2000).

The DeCSS controversy can be seen as a broader clash between values of the F/OSS community, regimes of increasing copyright protection enforced by licenses and proprietary software tools, and copyright holder-centric trends in copyright law. Below we outline several F/OSS values that formed another basis for the codes we created for content analysis.

Threats to Tinkering and Reverse Engineering

Traditionally F/OSS software places fewer restrictions on the actions of users than closed commercial software. F/OSS users can access, change, and redistribute code without penalty to improve on the works of others, and reverse engineer programs to interoperate with F/OSS platforms (Moody, 2001; Pavlincek, 2000; Raymond, 2000).

But DRM, combined with software licenses, sometimes block users’ ability to tinker or reverse engineer (Felten, 2003). Some are concerned that DRM could stymie further development of F/OSS software (Committee on the Judiciary, 2002; Samuelson, 2002, 2003; Simons, 1999). Traditionally, much reverse engineering is legal, even though reverse engineering entails making a copy of the underlying code.  

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[1]Norwegian courts were unable to firmly establish that Johansen’s primary motivation for creating and releasing DeCSS was to facilitate viewing of DVDs on Linux machines (Bing, 2003).

[2]Judicial decisions in the US deem such copying to be "fair use," as long as the purpose of the reverse engineering is to create an interoperable program and as long as the programmers of the interoperable program use "clean room" development techniques (Samuelson & Scotchmer, 2002).
The imposition of DRM on programs means that, to reverse engineer, software developers must circumvent the DRM in violation of the DMCA.

While the DMCA created an exemption from the anticircumvention rule for reverse engineering (United States Copyright Act, 2004, § 1201(1)), critics charge that the exemption is too narrow and excludes a variety of previously protected or useful activities such as locating and fixing bugs in software, adding additional features, and creating competing products (Samuelson, 2002; Samuelson & Scotchmer, 2002).

Framing DeCSS as a Piracy Tool

Since its inception, copyright interests have charged that DeCSS is a piracy tool (Motion Picture Association of America, 2000). This charge conflicts with the F/OS view of DeCSS as a legitimate means to play legally purchased DVDs on computers with F/OS operating systems.

F/OS enthusiasts draw a clear distinction between themselves and “crackers” or “pirates” (Raymond, 2000). For example, a contributor to the user forum at the online magazine Slashdot noted,

Those of us wanting to watch DVD under Linux do not, for the most part, have any interest in pirating DVDs... By alienating [F/OS] users you people in the film industry have alienated some of the most technically savvy folks in the world—the very democratic group most likely to embrace an emerging technology such as DVD, and a by and large well paid group with lots of disposable income to spend on your product. Nice shooting, Tex. (FreeUser, 1999)

The portrayal of DeCSS as a piracy tool can be seen as an attempt by copyright owners to frame the debates about circumvention devices—labeling them as “piracy tools,” and drawing attention away from their potential legitimate uses (Samuelson, 2003).

Excluding F/OS from media innovations. Further, some see DeCSS, and the broader circumvention debate, as a move by copyright interests to exclude F/OS systems from future entertainment media innovations. As Williams in Linux Magazine noted, “the current DVD impasse must be resolved in a way that prevents future industry groups from boxing out the Linux platform” (Williams, 2000). It is currently unclear whether the law permits reverse engineering of the DRM protecting a work in order to build a competing media player. The law permits reverse engineering of a DRM for the purposes of creating an interoperable program, but only if the underlying work that the DRM is protecting is a “computer program.” Thus, one would have to argue that the CSS is protecting a “computer program,” which would be a difficult argument to make. This fear of exclusion from the growing media market has been reinforced by Microsoft plans to create trusted computing systems that may refuse to interact with F/OS software (McMillan, 2003).

Methods

Study Design and Sampling

The study employed a content analysis methodology that examined three elements of DeCSS posting Web sites: the characteristics of the text on the Web sites (including the message size and meaning), available characteristics of the Web site author (country of origin and reference to the F/OS community), and the degree to which the Web sites changed over time either in terms of meaning, size, or DeCSS poster characteristics (Neendorf, 2002).

Our sampling frame of DeCSS Web sites was drawn from a query on the Alta Vista search engine. We created the samples by running queries using the terms DeCSS and DECSS during consecutive 2-day periods in January 2001 and then again in March 2003. The two sample dates were chosen to capture potential variation in DeCSS posting activity. The January 2001 period represents a potential high point in DeCSS activity—the judge in the Corley case had issued an injunction prohibiting linking to or posting DeCSS 5 months earlier, but the decision was under appeal. The March 2003 collection took place after the case was completed. By this point, the Corley decision had become a binding interpretation of the law in the US.10

We used a specialized type of query known as a URL search to better understand how our query strategy affected our results. A URL query searches the Alta Vista index for pages that contain the term DeCSS somewhere in a hypertext markup language (html) file name. We specified English-only pages to ensure we could read and analyze the text and graphics on the resulting Web sites.

Our first search result generated 132 Web pages and our second generated 200 Web pages. To ensure that each result in our sample posted DeCSS, we manually reviewed each page. We discarded pages with the following characteristics: duplicates, pages that provided a link to the code on a secondary Web site, pages that did not actually provide access to the code (e.g., news stories about DeCSS), court documents, any listserv postings, password restricted pages, and pages in which the file download function no longer worked.

Most of the Web pages in our results were parts of larger Web sites. We defined a Web site as all Web pages that appeared to be constructed by one author, and that appeared under the domain name generated by the search result (Weare & Lin, 2000).11 To ensure that we captured all parts of the Web site related to DeCSS, we explored up and down the file structure of the Web sites.

We captured 28 unique Web sites from January 2001 and 23 unique Web sites from March 2003. Seven Web sites were repeated in both samples, but the content on some of

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10 As we explain in footnote 7, the Corley decision is, strictly speaking, binding only in three states.

11 This definition excluded external sites linked to by the Web sites in our sample and content obviously not written by the primary Web site author but included on the Web site (e.g., a cease and desist order written by a law firm and posted by the Web author).
TABLE 1.  Codebook of arguments used on DeCSS Web sites.

<table>
<thead>
<tr>
<th>Argument types</th>
<th>Summary definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Viewer of choice</td>
<td>Consumers lawfully purchasing DVDs have the right to—or that corporations/copyright interests are attempting to restrict consumers' rights to—play the DVD on a machine running the operating system of their choice (e.g., a F/OS operating system such as Linux, FreeBSD, etc.).</td>
</tr>
<tr>
<td>2. Skip commercials</td>
<td>Consumers lawfully purchasing DVDs have the right to—or that corporations/copyright interests are attempting to restrict consumers' rights to—skip the commercials in a DVD.</td>
</tr>
<tr>
<td>3. Play foreign DVDs</td>
<td>Consumers lawfully purchasing DVDs have the right to—or that corporations/copyright interests are attempting to restrict consumers' rights to—bypass region codes and play DVDs from a foreign country.</td>
</tr>
<tr>
<td>4. Make back-up copy</td>
<td>DeCSS allows DVD owners to rightfully make a copy of their lawfully purchased DVD.</td>
</tr>
<tr>
<td>5. Price/release date discrimination</td>
<td>Region controls on a DVD lead to inflated prices for DVDs and long wait times for movie releases, or corporations purposefully use region controls to enforce high prices for DVDs and control what movies are released in different areas of the world.</td>
</tr>
<tr>
<td>6. Corporations are bad (other)</td>
<td>Corporations/copyright interests are bad for some reason other than those outlined in other codes, OR corporations/copyright interests are bad, but authors do not give a reason why they are bad. This includes appeals to undefined rights.</td>
</tr>
<tr>
<td>7. Fair use</td>
<td>CSS erodes traditional fair use rights. Prohibition of DeCSS erodes fair use rights. Existence of DeCSS helps retain fair use rights. May or may not use the term &quot;fair use.&quot;</td>
</tr>
<tr>
<td>8. First sale</td>
<td>CSS erodes traditional first-sale rights. Prohibition of DeCSS erodes first-sale rights. Existence of DeCSS helps retain first-sale rights. May or may not use the term, “first-sale,” OR corporations/copyright interests want to move consumers to a pay-per-view distribution model.</td>
</tr>
<tr>
<td>9. Free speech</td>
<td>Prohibition of circumvention devices challenges rights to free speech. May or may not use the term “free speech.”</td>
</tr>
<tr>
<td>10. Reverse engineering/tinkering</td>
<td>Reverse engineering is legal and therefore the hacking of CSS or region codes should not be prohibited.</td>
</tr>
<tr>
<td>11. Innovation</td>
<td>Prohibition of circumvention devices will stifle innovation and research in software development.</td>
</tr>
<tr>
<td>12. Current copyright law is bad</td>
<td>The ideals of copyright law have been warped to fit corporate goals. Current copyright law is unjust or will have negative effects.</td>
</tr>
<tr>
<td>13. Piracy occurs without DeCSS</td>
<td>DeCSS does not promote or cause piracy. Most piracy occurs without DeCSS. CSS is not a copy protection system; it is an access control system.</td>
</tr>
<tr>
<td>14. Scare tactics—Abuse of legal system</td>
<td>Corporations/copyright interests are trying to intimidate people by using or misusing the law including cease and desist orders and bringing lawsuits.</td>
</tr>
</tbody>
</table>

these changed between the two sampling dates. The study team made paper copies of all Web sites and performed all analyses on the printed versions.

Our sampling unit was Web sites, but our unit of analysis was all content (text and images) contained on the Web sites related to DeCSS, the Corley case or other DeCSS related cases, copyright law, reverse engineering, DRM, F/OS, and circumvention (Krippendorf, 2004; Weber, 1990). We refer to this as DeCSS content.

To measure the amount of DeCSS content on the sites, we used the Atlas-TI qualitative data analysis program to generate a word count. To identify the meaning of text and graphics we compared them with codes representing broad categories of arguments from a predefined codebook (described below). To generate information about the DeCSS poster, we used a "traceroute" program, in addition to content analysis of the Web site, to determine the country in which the poster's Web site was located. To determine the extent to which the poster referenced the F/OS community, we compared the Web sites to a set of criteria defining types of F/OS references (Table 2).

Codebook Development, Coder Training, and Data Collection

We developed our codebook of "arguments" for posting DeCSS in three stages. The first author undertook a review of the scholarly, professional, and popular literature related to DeCSS and DRM to identify prominent themes. Second, the first and second author reviewed a subset of the Web sites and identified additional arguments or explanations. The third author, who has expertise in copyright law, then reviewed the draft codebook to suggest clarifications to the codes. Codebook development involved several rounds of commentary, revision, and pretesting.

The first and second author pilot coded a further subset of the data with the final codebook to assess the reliability of the codes. The percent agreement measure (number of agreements divided by total number of measures) was used to assess intercoder reliability (ICR). The pilot coding produced an ICR score of 100%, suggesting that we had engaged in sufficient code definition and training to code the full data. Table 1 summarizes the codebook.12

The first and second author performed content analysis (McMillan, 2000). We measured whether a Web site contained each of the arguments by scoring the Web site a "1" to indicate the presence of the code and "0" to indicate its absence (Neuendorf, 2002). The analysis produced an overall ICR of 95.6% for the first sample and an ICR of 96%.

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12 A complete copy of the codebook is available from the first author upon request.
for the second sample. In both samples, all individual arguments had ICR scores above 85%, indicating acceptable levels of reliability (Neuendorf, 2002).

To determine the extent to which the DeCSS poster referenced the F/OS community, we examined the Web sites for indicators signaling affiliation with the F/OS community (see Table 2). We developed these indicators through informal interviews with local F/OS users.

As indicated in Table 2, Type A Web sites made no explicit reference to F/OS. Type B Web sites made some reference to F/OS software or projects. Type C Web sites contained explicit references to F/OS and fairly clear indicators that the author was a F/OS user.

### Results

**Finding 1: A Lack of Speech and Lack of Arguments**

We found that many DeCSS posters did not include any DeCSS content beyond a link to download the file. Because many sites contained little DeCSS content, data also show that most sites contained no arguments from our codebook. For example, 15 of the sites in our first sample and 13 of the sites in the second sample contained no arguments. Table 3 depicts the word count distribution. Table 4 indicates the argument use distribution.

Much of the DeCSS content and most arguments were contained on a small number of Web sites with high word counts. A few sites with high word counts, but low argument use, typically contained long lists of mirror sites, or links to articles about DeCSS.

**Finding 2: Popular Arguments**

Of the Web sites that employed arguments, Table 4 shows the most-used: “Viewer of choice,” “Scare tactics—Abuse of Legal System,” and “Piracy Occurs Without DeCSS.” The arguments “Current Copyright Law is Bad” and “Corporations are Bad” were also used frequently in the first sample, but not as frequently in the second. “Reverse Engineering” and “Free Speech” were used regularly in both samples.13 Due to the small sample size it is difficult to ascertain any trends in argument use across time.

**Finding 3: Reference to Law or Piracy**

We also sought to identify the number of Web sites making explicit reference to the DMCA, other related legisla-

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13We analyzed each argument in terms of U.S. and non-U.S. posting. Due to small sample sizes and English language bias, it is difficult to ascertain national differences between argument use, but the most popular arguments were used more or less equivalently in both sets. We did notice one interesting difference—non-U.S. posters used the “reverse engineering” argument more than U.S. posters. This could stem from the issue of reverse engineering legality raised in the Johansen case (Bing, 2003).
tion, Corley, or related case law. In each of the two samples, 13 sites made no reference.

In the 2001 sample five sites make reference to a specific law (e.g., DMCA) or a specific court case (e.g., "Corley," the "NY lawsuit," or the "DeCSS case"). The 2003 sample also contained five such sites (several were repeats from 2001).

But additional Web sites made less-specific references to law. For example, one author referred to "moronic Patent/Copyright law." Authors also made references to court cases without identifying the case by name (e.g., "recent legal actions"). The 2001 sample contained five of these sites and the 2003 sample contained two such sites.

Additionally, some sites did not make reference to law, but referred readers to other Web sites that contained significant legal content. For example, one author noted, "You can find out more about DeCSS at Lemuria.org," referring to a site that contains significant information about the legal aspects of the Corley case. Four sites contained this type of reference in 2001 and three sites did in 2003.

Another important finding is that in data from this study, DeCSS was either presented alone, or as part of a collection of links that did not appear to include cracking software (e.g., part of a large F/OSS software archive). We did not find examples of DeCSS presented as a piracy or cracking tool.

Finding 4: DeCSS Poster Characteristics

For each Web site in both samples, we attempted to ascertain the geographical location of the author. Numerous Web sites were located outside the United States. Twelve sites in the first sample were from outside the US and 11 sites in the second sample. Other nations appearing in the sample include (in rough order of number of DeCSS sites) Netherlands, Germany, United Kingdom, Czech Republic, Canada, Australia, Russia, Mexico, Sweden, and Israel.

We also analyzed each site to see if it contained references to the F/OSS community or F/OSS software. In both samples, the majority of Web sites had either a type B reference or a type C reference. The percentage of sites with a Type C reference to F/OSS grew between the first and second samples, for both U.S. and non-U.S. authors.

Discussion

In this section we draw on the data, theorizing from the collective action literature, and relevant law to answer the question of who posts DeCSS and why, and to consider the extent to which DeCSS posting qualifies as protest. First, we discuss our findings related to who posts DeCSS. Then, we draw on definitions developed in the protest literature to distinguish between malefashion and protest behavior. Following this, we consider what our results suggest about copyright protest more generally.

Who Posts DeCSS?

In general, the data support our expectation of a relationship between DeCSS posting and F/OSS. The F/OSS association data in Table 5 support our expectation that many DeCSS posters would refer to F/OSS. In addition, two popular codes were tied to the F/OSS software movement—"Viewer of Choice" and "Piracy." The "Viewer" argument argues that DeCSS is a tool to play DVDs on a F/OSS operating system. It typically emphasizes the poster's intention of using DeCSS to watch legally purchased DVDs—as opposed to using DeCSS to pirate DVDs. As one poster explained, "...I just want to be able to watch DVDs I legally purchase on my operating system of choice." This argument was sometimes featured as a graphical icon stating, "DVD video for every OS" (see Figure 1). Another site explained, "the purpose of this site is...to make perfectly legal uses of DVD technology possible."

<table>
<thead>
<tr>
<th>TABLE 5. Number of Web sites containing F/OSS indicators.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference to Free/Open Source (F/OSS) software</td>
</tr>
<tr>
<td>Total (N = 28)</td>
</tr>
<tr>
<td>Type A: No reference to F/OSS</td>
</tr>
<tr>
<td>Type B: F/OSS compression used or link to F/OSS</td>
</tr>
<tr>
<td>DVD advocacy group</td>
</tr>
<tr>
<td>Type C: Textual reference to use of F/OSS software or use of Linux penguin icon</td>
</tr>
</tbody>
</table>
Several of these sites actively condemned piracy. One author noted, “Piracy is wrong...” A slogan used on several Web sites contrasted those who used DeCSS to view DVDs with pirates, “We’re not their enemy—we’re their customers.”

Data confirm earlier findings that both U.S. and non-U.S. Web sites post DeCSS. Data also show that non-U.S. posters (predominately European) posted DeCSS despite the fact that national law prohibiting DeCSS posting did not exist in most of the non-U.S. nations in our sample at the time of the study.14

Why Do People Post DeCSS?

Another interesting question is why people post DeCSS despite its technical obsolescence and its legal status. One explanation is that people post DeCSS to protest something. Past authors have defined online protest in terms of its collective aim; its public nature; and its political, ethical, or ideological motivations (Lievrouw, 2003; Manion & Goodrum, 2000; McAughhey & Ayers, 2003; Vegh, 2003). While there is room for argument, we assert that much DeCSS posting fits the definition of protest. DeCSS posting aims for a collective goal of either changing law or opposing the enforcement of law by corporate interests. Further, because DeCSS is posted on public Web sites, and is often accompanied by the Web site author’s contact information, posting DeCSS is clearly a public act. Finally, the arguments we identified showed political, ethical, or ideological reasoning in that they stated beliefs about how laws ought to be, how actors ought to behave, and what rights, duties, and freedoms DVD and Internet users should enjoy (Blackburn, 1996).

But in considering the political, ethical, or ideological nature of these arguments, it is important to note that in many cases, substantial inference was necessary to interpret what arguments existed. For example, to understand the phrase, “Help 2600 in their struggles against the powers that be”—get the word out”—we had to infer that the ‘powers that be’ referred to the parties suing 2600. Not many examples provided good arguments in a rhetorical or logical sense (i.e., conclusions following from carefully crafted premises). And, as described earlier, most authors included no arguments; for these authors, it is impossible to determine the degree to which their motives for posting DeCSS were ethical.

Another explanation is that DeCSS posting is merely malfeasance motivated by piracy interests or thrill-seeking.

But the arguments outlined in the findings draw the malfeasance explanation for DeCSS posting into doubt—at least for Web sites containing arguments.

While many of the sites in our sample contained no arguments, and it is thus difficult to ascertain the intentions of these posters, we are hesitant to conclude that those Web sites necessarily qualify as malfeasance. First, if no-argument DeCSS posters were pirates or crackers, one might expect that they would have presented DeCSS as a piracy or cracking tool. We have observed DeCSS posting in other environments where DeCSS is clearly presented within the context of “cracking” (e.g., included in a list of links labeled “Cracks”; Eschenfelder et al., 2005). Yet we found no such evidence in this data.

Second, it may be that we defined the concept of “arguments” too narrowly to capture political intent. We observed four types of Web sites in our sample:

1. File names only. These Web sites offered file name links to download the DeCSS code. The label used in the link was the name of some form of DeCSS (e.g., “decss.exe” or “css-auth.tar.gz”). No argument is used.

2. Links with annotations. These Web sites similarly offered links to download DeCSS, but included with some short explanatory comments (e.g., “decss.exe—download the famous DeCSS code”). No argument is used.

3. Sentences of text. These Web sites included fragments or incomplete arguments frequently requiring substantial inference.

4. Fully formed arguments. These Web sites included well-formulated arguments with little required interpretation.

In this study, we took as a starting assumption that only Types 3 and 4 constituted “arguments” and Types 1 and 2 were “no argument” Web sites. Yet, theorizing from the communications and rhetoric fields suggest that Types 1 and 2 could also qualify as arguments. That is, even a file name—posted alone—could qualify as an argument when considered in the context of a larger discourse.

Rhetorical analysis argues that contemporary discourse proceeds primarily in “fragments” that rely on a shared contextual understanding in one or more “public spheres”—or domains of conversation about public issues generated by open dialogue—for their meaning (Habermas, 1974; McGee, 1990; Zulick, 1997). For example, interpretation of a short phrase on a political bumper sticker may require extensive background understanding of the policy under dispute and existing arguments protesting or supporting that policy (Bloch, 2000). From this perspective, even the act of placing an unannotated link to DeCSS on a Web site can refer to and evoke arguments against the prohibition on circumvention within a set of people with shared contextual understandings.

Further, numerous sites in our data contain cues that imply the poster envisions herself or himself engaged in a larger public deliberation, even if no argument is stated. For example, on one site, the DeCSS link is accompanied by the text, “At the moment, lots of court cases are running about...”

14Of the other nations appearing in our sample, only Australia (Australia Copyright Act, 2000, § 116A), and the Czech Republic (2000, Article 43) had anti-circumvention laws at the time of the study.
the DeCSS case... a copy of the DeCSS program can be downloaded here." The actual motives of the poster can only be speculated about from this fragment; however, the action of linking to DeCSS while pointing to specific court cases debating its legality suggests that the author was aware of the larger legal discourse of the DeCSS debate. Further, it implies that the poster is contributing to a side in the debate—that DeCSS should be legal—through the act of making it available to an audience.

Some may argue that Type 1 and 2 DeCSS posting would not qualify as discourse because Web authors may post DeCSS for purely functional reasons—having no intention of contributing to any larger debate. But DeCSS is largely obsolete as a personal DVD player (Saulman, 2002), and numerous other DVD players for commercial and F/OS operating systems are available (Phillips, 2003). Further, some argue that professional pirates would be unlikely to use DeCSS (Williams, 2000). The obsolescence, combined with lack of evidence of DeCSS posting in a piracy/cracking context within the data, makes it unlikely that most of our DeCSS posters posted DeCSS for any functional reason. The primary utility of DeCSS may be symbolic.

From this perspective, a third explanation for DeCSS posting is that DeCSS (and circumvention tools more generally) is important to the F/OS community for the reasons outlined in the Introduction; and that F/OS users have a collective identity, a shared discourse, and necessary resources to undertake protest (Tarrow, 1998). The association between DeCSS posting and F/OS comports with social action theories that emphasize the importance of shared identity among protest participants (Melucci, 1996). If F/OS users have a shared identity and discourse, and most of our posters are members of the F/OS community, then many of our Type 1 or 2 Web sites might be considered a form of protest—at least within that community.

This argument, however, assumes that a shared F/OS discourse exists, and that the poster is part of the discourse. We have little evidence of the first premise beyond the existence of shared professional journals and Web sites related to F/OS. In fact, analysis of European Union DeCSS posting shows an inconsistent relationship between DeCSS posting and F/OS (Eschenfelder et al., 2005). Further ethnographic research would be helpful in better defining the intentions of authors whose Web sites fall into Type 1 or 2.

Implications and Future Research

Having argued from the data that most of our DeCSS posting is probably not malfeasance, we are left with numerous questions about DeCSS posting as protest. In this section, we point to several questions that deserve further investigation.

While our data suggest that many DeCSS posters are likely protesting, it is not always clear that DeCSS posters are protesting copyright law. For example, many pointed to related concerns such as undesirable corporate behavior or free speech as the source of their discontent. For many sites, we have little evidence that the poster was even aware of copyright law.

Second, it is unclear what significance DeCSS posting holds for the larger copyright policy debates. We do not know what effect DeCSS posting has had on the existing citizen action groups involved in communications and information issues (Mueller, Pagé, & Kuerbis, 2004). While the Electronic Frontier Foundation (EFF) provided legal support in the Corley case, we found no evidence in our data of organized collaboration between DeCSS posters and other copyright activists. Few Web sites mentioned the EFF. While we found numerous sources of evidence of circumvention-related activism outside our data, the relationship of DeCSS posting to these efforts is unclear.

DeCSS posting may have laid important groundwork for future protest related to DRM on audio CDs or HDTV by developing initial arguments or popularizing forms of contention that future protesters can draw upon (e.g., posting the DeCSS code as a slogan, or see Touloucky, 2001). The collective action literature points to the importance of "master frames," or symbols, frames of meaning, and ideologies that can incite politicization, link groups to one another, and affect popular conceptions of protest action (Tarrow, 1998). While some frames created by DeCSS posting likely appeal only to a narrow techno-elite (e.g., "Viewer of Choice," "Piracy"), other DeCSS arguments may appeal to a broader audience. For example, "Free Speech," (which focuses on the perceived right to post code or links to code), may appeal to a broader public belief that free speech, however defined, is a good thing. Further, the vague complaints of copyright injustice or corporate bad behavior, while rudimentary, may be more accessible to a general audience traditionally hostile to charges of corporate abuses of power. It is too early to judge the significance of DeCSS in this regard. Future research should track the development of frames across copyright-related political action (Maxwell, 2004).
By drawing attention to issues, DeCSS posting may have galvanized individuals to get involved through other avenues of collective action. Some suggest the low entrance costs of Internet protests allow easier recruitment of new protest participants (Postmes & Brunsting, 2002). The Internet allows people to participate without much effort (Kruger, 2002; Weber, Loumakis, & Bergman, 2003). But it is not clear that posting necessarily translates into sustained activism. The factors effecting political participation are highly complex (Schuefle, Nisbet, Brossard, & Nisbet, 2004). Perhaps DeCSS posters would refuse to participate in other protest activities that required more effort (e.g., writing a letter to an elected official, participating in a rally).

Another area of concern raised by the data is the overall low argument use and the popularity of vague arguments like “Corporations are bad” and “Copyright law is bad.” These phenomena may stem from posters’ inability to explain the law and its relationship to the technology with more specificity. Many of the arguments inherent in the circumvention debate are extremely complex. This may make it difficult for an average person, even one who would be technically savvy enough to post DeCSS, to learn about, debate, and express an opinion on circumvention issues.

This complexity has implications for the larger copyright policy debate. On one hand, participatory theories of democracy assume that when faced with important policy decisions, citizens will review facts, and debate issues (Dewey, 1927). But the complexity and uncertainty of circumvention debates may preclude greater participation. For instance, a number of bills have been proposed in the U.S. Congress related to copyright and consumer rights. But it may be that the average citizen will not understand enough about the law or the technology to attempt to influence these bills. Future data collection could examine the degree of public comment on these bills.

On the other hand, other theories of democracy suggest that elites make most decisions as citizens have little understanding of most policy issues (Lippman, 1997), and that complexity stunts public participation (Dahl, 1989). In this sense, lack of citizen participation in the circumvention debates may be worrisome, but it is no different from many other policy areas; and, we should expect to see the copyright debate (including protest) largely driven by experts, lobbyists, and action groups. The relevance of citizens’ capacity to participate will increase as DRM are applied to an increasing number of consumer media such as digital television and audio compact disks. Further research on HDTV and protected audio CDs is needed to understand how citizens express dissent.

A fourth question raised by the results is the degree to which DeCSS posting qualifies as electronic civil disobedience. Our data show that numerous DeCSS posters were breaking the law—and data suggest that many of them had political, ethical, or ideological intentions in doing so. There are many definitions of e-civil disobedience (Manion & Goodrum, 2000; Wray, 1999); but theorizing from political philosophy sets specific criteria for when civil disobedience is justified. One requirement is that protests have exhausted all legal means of change (Rawls, 1999). Based on these criteria, it is not clear that all our posters would meet the criteria for justified civil disobedience as we have little information about their other political activities. We discuss this question further in a separate manuscript (Eschenfelder, Howard, & Desai, in press).

Finally, the prevalence of non-U.S. posters protesting U.S. law suggests the need to consider transnational aspects of the protest, as we saw citizens in one nation protesting legal actions in another nation, or protesting larger transnational institutions such as copyright harmonization, international law jurisdictional arrangements, or large transnational corporations. The complexities of national and international laws can befuddle protesters and researchers. For example, some non-U.S. DeCSS posters protesting the application of U.S. law via cease-and-desist orders in Europe believed that U.S. law had no applicability to their actions. As one European DeCSS poster put it, “One interesting fact is that [the U.S. lawyers] even sent these threats to people whose servers were outside the USA, and thus don’t fall under US legislation! When I read about that . . . . I decided to make this page.”

But DeCSS posters’ assumptions about extraterritorial reach are not necessarily correct. The extent to which a nation’s laws apply to Internet content hosted on foreign servers, but available domestically, remains one of the thorniest questions raised by the growth of the Internet (Goldsmith, 1998; Oppenheim, 2000; Post, 2002). Numerous current legal cases illustrate the potential for

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20John Rawls argues that civil disobedience is a political act done with the aim of bringing about a change in law or policy, that the action should be guided by shared principles of justice underlying existing institutions rather than personal morality, and that normal constitutional routes to try and change the law have failed (Rawls, 1999). While some of our posters are clearly politically motivated and appeal to principles of justice such as fair use, we have no evidence that they had tried to change the law through constitutional routes.

21A historical review of civil disobedience thought is beyond the scope of this article. Interested readers may turn to the compendium (Bedau, 1969) for more perspective and key papers.

22European Union DeCSS Posters may have been motivated to post DeCSS due to the prosecution of Jon Johansen, one of the creators of DeCSS, in Norway. Johansen’s home was raided in January 2000 before our first round of data collection.

23Moreover, even if U.S. law could not reach the non-U.S. posters, international efforts to harmonize copyright laws are leading to anti-circumvention and anti-trafficking laws in many nations. The EU adopted the E.U. Copyright Directive that obligates all member nations to create laws prohibiting the distribution of circumvention devices (European Council and Parliament, 2001).
extraterritorial legal reach, and extraterritorial assertions of jurisdiction are generally permitted under international law (American Law Institute, 1986, § 402).

Further, collective action theory suggests a complex interplay between the local and the global. Protesters may be "global citizens" protesting transnational institutions, while simultaneously being influenced by local differences in copyright laws, cultural differences in intellectual property norms, and local events and conditions (Edmonson, 1997; Fernandez-Molina, 2003; Jayakar, 2003; Oppenheim, 2000). For example, European posters may have been protesting the Corley decision, but they may have also been motivated by the prosecution of Jon Johansen in Norway. We explore the interplay between global institutions and local conditions in a separate manuscript (Eschenfelder et al., 2005).24

Limitations

The findings from this study are limited by the methodology used to develop the sampling frame. The Alta Vista search engine includes sites in its index based on their popularity (measured in terms of incoming links and other criteria). Our sample is therefore most representative of popular Web pages or those pages most likely to be returned in search engine query results and thus be visited by Internet users. Further, Internet search engine samples are not considered complete and their contents are subject to unknown biases built into the proprietary indexing and spidering strategies (Weare & Lin, 2000). Our results are also limited by our reliance on a traceroute program and author descriptions to determine the nationality of the Web author.

The results are also limited by our reliance on content analysis as a methodology. We relied on clues contained on the Web sites to generate findings about posters' motivations. Multimethod research combining Web site content analysis with interviews could better ascertain DeCSS posters' intentions.

Further, selecting only Web sites whose authors speak English may have biased our sample if other arguments may be more popular among non-English speakers. We have also specifically collected DeCSS posting data from non-English speaking nations (e.g., China) and have found that DeCSS appears to have different cultural significance in those countries (Eschenfelder et al., 2005).

It is likely that our sample also skewed our conclusions about DeCSS related protest in that we only analyzed DeCSS posters, who represent a technological elite with the resources to create a Web site and post the software. Less-technical citizens may protest in different ways and a broader approach would be necessary to fully document the nature of public protest related to DeCSS.

Conclusion

Past research has suggested that DeCSS posting is a form of protest against changes in copyright law (Eschenfelder et al., 2004; Lievrouw, 2003). This study sought to answer the question of who posts DeCSS and why they post it by analyzing the content of DeCSS posting Web sites. Drawing on concepts from collective action theory and rhetorical theories, we sought to determine the extent to which people posted DeCSS to protest changes in copyright law. We also considered the potential significance of DeCSS posting for the larger copyright debate.

We found that DeCSS posters included U.S. and non-U.S. authors, many of whom affiliated themselves with the Free/Open Source (F/OSS) software movement. Popular arguments drew on values from F/OSS, stressing how DeCSS is a legitimate mechanism to play legally owned DVDs on a user's viewer of choice. Other popular arguments made vague references to the unjust nature of current copyright law and to unwanted corporate behaviors. Arguments that referred to specific copyright law principles such as fair use or first sale were not used as often.

Importantly, the study also found that most DeCSS posters did not include any arguments on their Web sites to explain their posting of DeCSS. We are hesitant, however, to characterize the actions of these no-argument DeCSS posters as malfeasance because we did not find that authors presented DeCSS as a piracy or cracking tool. Further, rhetorical theory stresses that within a community with a shared discourse, a link by itself can be understood as a statement of a political position and a contribution to a debate. In sum, our analysis suggests much DeCSS posting is not malfeasance, especially if we assume many DeCSS posters are part of the F/OSS discourse community. But questions remain about sites that contain no arguments.

Our analysis of the arguments points to five implications. First, more research is needed to determine the significance.

23Examples include United States v. Elcom, Ltd. (2002), Metro Goldwyn Mayer Studios, Inc. v. Grokster, Ltd. (2003) and Yahoo! (2004). The U.S. case most directly relevant to this claim is United States v. Elcom, Ltd. (2002), in which a U.S. court asserted jurisdiction over a Russian software company and one of its programmers based on their online sale of a software program in the United States, notwithstanding the fact that the development of the program and the servers from which it was uploaded were in Russia. In another important Internet copyright case, a California court asserted jurisdiction over Shatman Networks, Ltd., a company organized under the laws of a South Pacific island-nation, Vanuatu, based on the availability of the company's Kazaa Media Desktop software on the Internet and the fact that millions of California residents had downloaded it (Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd., 2003). Moreover, many other countries besides the U.S. have asserted jurisdiction over extraterritorial Internet activity that has a domestic impact (e.g., French court rulings applying French law to the sale of Nazi paraphernalia on Yahoo!, Yahoo! 2004; Reidenberg, 2002), and an Australian court's decisions to allow a libel suit by an Australian citizen against a Barron's online site (Addis, 2004; Lipinski, Buchanan, & Britz, 2004). The issue has been the subject of multinational agreements in the European Union that extend beyond copyright concerns (European Council and Parliament, 2000a; 2000b).

24The institution of anti-circumvention and anti-tracking laws in the DMCA and their application in the Corley case were part of a larger global development in copyright law brought on by the World Intellectual Property Organization (WIPO) Internet treaties. The treaties call on signatories to pass laws restricting the circumvention of copyright protection devices such as CSS (World Intellectual Property Organization, 2004).
of DeCSS posting to other copyright activists and the circumvention policy debate. Second, the data cannot say anything about the extent to which DeCSS posters have participated in, or would be willing to participate in, further off-line protest activity. Third, the complexities of the issues inherent in the circumvention debate raise concerns about citizens’ abilities to engage in detailed debates about copyright and circumvention. Fourth, while it seems clear that much DeCSS posting is protest, it is unclear whether DeCSS posting would qualify as justified civil disobedience—especially without data about posters’ participation in other forms of protest. Finally, the appearance of both U.S. and non-U.S. posting in the data stresses the transnational aspect of copyright law and the need to understand both international copyright institutions and local norms and legal activities when studying protest activity.

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