

AMERICAN LIBRARY ASS'N V. FCC: **CHARTING THE FUTURE OF CONTENT** **PROTECTION FOR DIGITAL TELEVISION**

By Thomas S. Fletcher

In response to concerns from content producers that digital television would cause movies to fall victim to massive online piracy, the Federal Communications Commission (FCC) ordered all manufacturers of devices capable of receiving digital television (“DTV”) signals to include a technological protection measure called the “broadcast flag” in late 2003.¹ The American Library Association (ALA) challenged the rule before the D.C. Circuit.² In April 2005, the court vacated the rule for falling outside of the FCC’s rule-making jurisdiction.³ The court’s decision jeopardized the transition to digital television because it created widespread uncertainty about the future of copyright protection with respect to digital broadcasts. At present, the FCC cannot issue any regulations requiring copyright protection measures in devices receiving digital signals, manufacturers do not know whether to include copyright protection measures in their devices, and broadcasters worry that content producers will stop licensing digital content to them unless copyright protection improves. Meanwhile, consumers cannot decide whether to buy new digital televisions this year, or to keep waiting to upgrade their televisions until a standard is set.

Part I of this Note provides the background for understanding the current impasse. It examines the development of digital television, the need for and different types of copyright protection measures, and the parties affected by policy in this area. It ends by examining the D.C. Circuit’s reasoning in striking down the FCC’s order requiring all devices capable of receiving a digital television signal to recognize the broadcast flag. Part II applies a general model for standard-setting to determine whether any of the current copyright protection standards available on the market can succeed without government involvement. Part III examines pending legislation to re-implement the broadcast flag and the problems the legislation needs to overcome to reach an optimal balance of both consumer and copyright protection. Part IV concludes the Note.

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1. *In re Digital Broadcast Content Protection*, 18 F.C.C.R. 23550 (2003).

2. *Am. Library Ass’n v. FCC*, 406 F.3d 689 (D.C. Cir. 2005).

3. *Id.* at 703-05.

I. BACKGROUND

A. A Brief History of Digital Television

The broadcast spectrum is a limited resource. Signals sharing a frequency band within a local area interfere with each other, garbling audio and scrambling video signals.⁴ Congress created the FCC to regulate the use of scarce frequency bands across the radio spectrum in order to promote the public good.⁵ With this congressional mandate, the FCC has parceled out the radio spectrum and allocated these limited frequency bands to the many different users that depend on broadcasting information.⁶

Digital television broadcasts can transmit more information with higher signal quality than the traditional analog broadcasts invented in the 1940s.⁷ Digital signals also allow television stations to broadcast high definition television (HDTV).⁸ Additionally, digital signals interfere less than their analog predecessors, enabling viewers who used to receive only static to pick up more stations with crisper images and better sound. These advances in signal capacity and quality will allow the FCC to consolidate the 400 MHz of broadcast spectrum reserved for analog television signals and reallocate some of the frequencies for use by public safety officials.⁹

4. *In re Advanced Television Systems and Their Impact on Existing Television Broadcast Service*, 2 F.C.C.R. 5125, 5132 ¶¶ 60-61 (1987).

5. For the purpose of regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex, a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges . . . there is created a commission to be known as the "Federal Communications Commission."
47 U.S.C. § 151 (2000).

6. The FCC's allocation of the entire radio spectrum can be found at 47 C.F.R. § 2.106 (2002), available at http://a257.g.akamaitech.net/7/257/2422/14mar20010800/e-docket.access.gpo.gov/cfr_2002/octqtr/47cfr2.106.htm. A color-coded chart showing the allocation of frequency bands to different uses and industries can be downloaded at http://www.cybergeography.org/atlas/us_spectrum_map.pdf (last visited Mar. 8, 2006).

7. Whereas an analog broadcast signal can only transmit one video and two or three audio signals over a 6 MHz portion of the broadcast spectrum, a DTV station can simultaneously transmit as many as four such programs with CD-quality sound over the same 6 MHz. *Consumer Elecs. Ass'n v. FCC*, 347 F.3d 291, 293 (D.C. Cir. 2003).

8. HDTV allows viewers to receive "a wide-screen, ultra-high resolution picture with movie theater-quality surround sound—along with data such as program listings, sports scores, and stock prices." *Id.*

9. *In re Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, 16 F.C.C.R. 5946, 5951-52 ¶ 13 (2001).

The FCC began investigating the possibilities of digital television signals in 1987.¹⁰ After a decade of study and comment, the FCC released a standard for DTV broadcasting and set up a timeline for shifting from analog broadcasting to DTV to occur by 2006.¹¹ Congress facilitated the FCC's decision by mandating that no analog television broadcast license receive an extension past December 31, 2006.¹²

The first hiccup in DTV's implementation occurred in 2001 when the FCC discovered that consumers were not purchasing DTV-capable televisions.¹³ The FCC initially opted to let the market push the adoption of digital television equipment, but soon realized it was facing a market failure.¹⁴ Consumers did not want to spend extra money to purchase DTV equipment until broadcasters actually transmitted DTV programming.¹⁵ Broadcasters, however, did not want to switch over to a DTV signal until a substantial portion of their audience would be able to receive it.¹⁶ Meanwhile, manufacturers had no interest in supplying more expensive DTV-ready televisions if no one wanted to buy them.

The FCC quickly promulgated a regulation creating a timeline for requiring televisions sold in the United States to be able to receive DTV broadcasts.¹⁷ The regulation was immediately challenged in court, but upheld as a reasonable exercise of the FCC's authority.¹⁸ Under the regula-

10. See generally *In re Advanced Television Systems and Their Impact on the Existing Television Broadcast Service*, 2 F.C.C.R. 5125 (1987).

11. *In re Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, 12 F.C.C.R. 12809, 12850 ¶ 99 (1997).

12. 47 U.S.C. § 309(j)(14)(A) (2000). Congress also attempted to provide for a number of exceptions to a mandatory switch. § 309(j)(14)(B). However, as the deadline loomed and few consumers were ready for the switch, the Senate Commerce Committee passed legislation to extend the deadline to April 7, 2009. Press Release, S. Comm. on Commerce, Sci., & Transp., Senate Commerce Committee Approves the Digital Transition and Public Safety Act of 2005 (Oct. 20, 2005), <http://commerce.senate.gov/newsroom/printable.cfm?id=247497>.

13. *Consumer Elecs. Ass'n*, 347 F.3d at 294-95.

14. *Id.* at 295.

15. *Id.*

16. *Id.* at 294-95 (noting that broadcasters received permission from the FCC to continue broadcasting an analog signal if more than 15% of the local population could not receive a digital signal).

17. *In re Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, 17 F.C.C.R. 15978, 15996 ¶ 40 (2002).

18. The FCC relied on the All Channel Receiver Act (ACRA) to justify the DTV tuner regulation, which the D.C. Circuit upheld. *Consumer Elecs. Ass'n*, 347 F.3d at 303. During the early 1960s, the FCC first dedicated the UHF portion of the spectrum to television broadcasts. In so doing, it faced a market failure similar to that experienced now with the DTV transition. Consumers did not want to buy more expensive UHF-capable

tion, large screen televisions must all be DTV-ready by July 1, 2005; all remaining televisions must be DTV-ready by July 1, 2007.¹⁹ The transition to a digital future was back on track.

B. The Threat of Infringement Interrupts the Distribution of Digital Content

Shortly after promulgating the regulation requiring digital tuners, the FCC stumbled across another roadblock to switching to DTV: television studios' reluctance to make digital programming available due to the threat of widespread online copyright infringement.²⁰ Unlike analog programming stored on videotapes, digital television programming is vulnerable to infringement on a massive scale because an unlimited number of perfect copies can be made from one digital copy of a program. An endless stream of copies can then be rapidly distributed across the internet.²¹ Already, "it has been estimated that as much as two-thirds of Internet bandwidth in this country is consumed by peer-to-peer traffic, with much of that volume attributable to movie theft."²² Television studios, aware of the problems facing the music industry as a result of peer-to-peer net-

televisions until there were enough UHF channels. Broadcasters had no interest in transmitting in UHF until there were enough viewers to justify the costs. No television manufacturer wanted to make their goods more expensive by including a UHF tuner that no consumer was willing to pay extra for. Congress addressed the problem in 1962 by passing the ACRA, which required that all televisions "be capable of adequately receiving all frequencies allocated by the Commission to television broadcasting." *Id.* at 295.

19. See 47 C.F.R. § 15.117(i) (2005).

20. See *In re Digital Broadcast Copy Protection*, 17 F.C.C.R. at 16027 ¶ 1. See also comments filed with the FCC in response to the notice of proposed rulemaking with regard to the broadcast flag, Comments of the NBC Television Affiliates Association, *In re Digital Broadcast Copy Protection* at 3, MB No. 02-230 (Fed. Commc'ns Comm. Dec. 6, 2002) [hereinafter NBC Affiliates Comments] ("Without copy protection, the producers—including NBC Affiliates—may stop producing valuable digital content."), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513394973; Comments of Viacom, *In re Digital Broadcast Copy Protection* at 1, MB No. 02-230 (Fed. Commc'ns Comm. Dec. 6, 2002) [hereinafter Viacom Comments] ("[I]f a broadcast flag is not implemented and enforced by Summer 2003, Viacom's CBS Television Network will not provide any programming in high definition for the 2003-2004 television season."), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513394608.

21. See *In re Digital Broadcast Copy Protection*, 17 F.C.C.R. 16027 ¶ 1 (2002).

22. *Content Protection in the Digital Age: the Broadcast Flag, High-Definition Radio, and the Analog Hole: Hearing Before the Subcomm. on Courts, the Internet, and Intellectual Prop. of the H. Comm. on the Judiciary*, 109th Cong. (2005) (statement of Dan Glickman, Chairman and CEO, Motion Picture Ass'n of America) [hereinafter *Glickman Statement*], available at <http://judiciary.house.gov/OversightTestimony.aspx?ID=505>.

works, refused to make programming available until they could be certain that it would be safe in a digital environment.²³

C. The Broadcast Flag and its Alternatives

The FCC responded to content providers' concerns about infringement by exploring various alternatives for protecting digital broadcasts.²⁴ In the end, the FCC proposed that television broadcasts include a "broadcast flag," a signal sent with the broadcast that tells the receiver whether the broadcast may be copied or redistributed.²⁵ Understanding how the FCC convinced the content providers to progress with the DTV transition requires understanding the functioning and costs of the various copyright protection technologies available when the FCC chose the broadcast flag.

1. The Broadcast Flag

The broadcast flag is a digital signal attached to the beginning of a transmission that contains information about how the attached broadcast may be used.²⁶ The flag has a value which can be set to allow the viewer to make unlimited copies, a finite number of copies, or none at all.²⁷ Devices equipped with demodulators that recognize the flag implement the command by encrypting the broadcast to protect it from unauthorized copying.²⁸

For the broadcast flag to function, the device receiving the DTV signal must recognize and implement the flag.²⁹ Because the transmission is unencrypted, legacy DTV-ready televisions that do not recognize the broadcast flag can receive programming, but without the copy protection imposed by the flag. While these legacy televisions are good for consumers who would not immediately have to buy new sets, legacy devices represent a serious gap in the broadcast flag's protection regime.

If the government mandated that all new devices capable of receiving DTV implemented the broadcast flag, the risk of infringement posed by older generations of DTV-capable devices would decline as they became obsolete. However, the broadcast flag cannot reduce the threat posed by

23. See *supra* note 21.

24. *In re* Digital Broadcast Content Protection, 18 F.C.C.R. 23550, 23560-62 ¶¶ 22-26 (2003).

25. *Id.* at 23556-60 ¶¶ 12-21.

26. See Susan P. Crawford, *The Biology of the Broadcast Flag*, 25 HASTINGS COMM. & ENT. L.J. 603, 611-12 (2003) (describing the broadcast flag in great detail from development to effectiveness).

27. *In re* Digital Broadcast Content Protection, 18 F.C.C.R. at 23556 ¶ 13.

28. *Id.*

29. *Id.* ¶¶ 13-14.

the “analog hole.” The analog hole refers to the fact that in order for video and audio to be discernible to an audience, the content must be converted from a flagged digital format to an analog format that our eyes and ears can process.³⁰ Users seeking to copy programming can watch broadcast flag-protected television, record the audio and video through an external device, and then distribute the material online. Unless other measures are taken,³¹ such an easy method of circumvention limits the efficacy of the broadcast flag.

The broadcast flag imposes minimal costs on consumers.³² Current owners of digital televisions would not need to buy new equipment because the flag is backward compatible, meaning that it does not alter the ability of older televisions to receive digital broadcasts. Requiring a demodulator to recognize and implement the flag will add to the cost of all DTV-capable devices, but all of the proposed anti-piracy technologies require some form of demodulator to implement the copy protection technology. The broadcast flag demodulator promises to be the cheapest because it is relatively simple to implement³³ and because its developers have agreed to license it to manufacturers on a royalty-free basis.³⁴ The

30. An even more critical and systemic problem is the ‘analog hole.’ Video content, even when delivered digitally in a protected manner, must be converted to an unprotected analog format to be viewed on the millions of analog television sets in consumer homes. Once content is ‘in the clear’ in analog form, it can be converted back into a digital format which can then be subject to widespread unauthorized copying and redistribution, including over the Internet. This problem applies to all delivery means for audiovisual content, from DVDs to pay per view, to over the air broadcasts.

Competition, Innovation, and Public Policy in the Digital Age: Is the Marketplace Working to Protect Digital Creative Works?: Hearing Before the S. Comm. on the Judiciary, 107th Cong. 41-48 (statement of Richard Parsons, CEO, AOL Time Warner).

31. The House Subcommittee on Courts, the Internet, and Intellectual Property held hearings on the Analog Content Protection Act of 2005 on November 3, 2005, which calls for incredibly complex regulation of devices to close the analog hole. *See* HOUSE SUBCOMM. ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY, ANALOG HOLE LEGISLATION DISCUSSION DRAFT 11/03/05, available at <http://judiciary.house.gov/media/pdfs/analoghole110305.pdf>.

32. *In re* Digital Broadcast Content Protection, 18 F.C.C.R. 23550, 23559 ¶121 (2003).

33. *See* Crawford, *supra* note 26, at 611.

34. The technology was developed by a consortium of five technology companies: Intel, Hitachi, Matsushita, Sony, and Toshiba. *See* Comments of Digital Transmission Licensing Administrator, LLC, *In re* Digital Broadcast Copy Protection at 1, MB No. 02-230 (Fed. Commc’ns Comm. Dec. 6, 2002) [hereinafter DTLA Comments], available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513395250. The developers license the broadcast flag technology through the Digital Transmis-

broadcast flag also imposes no new costs on broadcasters because it only requires the addition of a short signal prior to a program's transmission.

2. Encryption

One alternative considered by the FCC calls for encrypting all DTV signals at the source.³⁵ Such a regime would require television stations to encrypt their broadcasts prior to transmission. Devices possessing a demodulator would then be able to decrypt the broadcasts and play them. As long as the decryption protocol is licensed only to manufacturers who promise to prevent their devices from copying or redistributing programming, content owners can rest assured. Unlike the broadcast flag, encrypting DTV signals would prevent legacy devices from receiving any programming, closing one gap in security but rendering a generation of DTV-capable televisions worthless without the purchase of an add-on demodulator. However, an encryption regime does share the broadcast flag's vulnerability to the analog hole once the content is displayed.

In total, an encryption regime imposes costs on multiple parties. Broadcasters would be required to license the encryption technology before transmitting their programming. Manufacturers would have to include demodulators in televisions capable of decrypting the signal. All consumers with old televisions would be required to purchase converters or new televisions to be able to watch the encrypted programming. At all stages in the process, users would have to license the encryption technology.³⁶ At present, no encryption provider has created an open license to lower transaction costs similar to the license offered by the owners of the broadcast flag.³⁷ Any adoption of an encryption regime would require an agreement with the encryption developer to license it to all parties on reasonable terms.³⁸

sion Licensing Administrator ("DTLA"), which holds harmless all infringers of the flag who follow guidelines governing the security of the broadcast flag protocol and limitations on its use. DTLA IP Statement, <http://www.dtcp.com/data/IPStatement07102001.pdf> (last visited Mar. 18, 2006).

35. *In re Digital Broadcast Content Protection*, 18 F.C.C.R. at 23560-61 ¶¶ 22-24.

36. *See, e.g.*, U.S. Patent No. 5,933,498 (issued Nov. 5, 1997) (underlying the VeriFIDES encryption technology discussed *infra*).

37. The open license proved to be an important factor in the FCC's decision to adopt the broadcast flag. *See In re Digital Broadcast Content Protection*, 18 F.C.C.R. at 23559, ¶ 21.

38. *See generally* Comments of Motorola, *In re Digital Broadcast Copy Protection*, MB No. 02-230 (Fed. Commc'ns Comm. Dec. 6, 2002) [hereinafter Motorola Comments], available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513397321; Comments of Veridian Corporation, *In re Digital Broadcast Copy Protection*, MB No. 02-230 (Fed. Commc'ns Comm. Oct. 30, 2002) [hereinafter

3. Watermarking

Watermarking, or fingerprinting, technology is a copy protection scheme that closes the analog hole.³⁹ Watermarking begins by using a signal identical to the broadcast flag. However, instead of attaching the flag to the beginning of the transmission, it embeds the signal throughout the video and audio content of the program.⁴⁰ While an intentional copyright infringer can evade the broadcast flag by exploiting the analog hole, developers of watermarking claimed that the watermark remains recognizable in every digital copy and dozens of generations of analog copies because it is part of the video or audio track.⁴¹ When a device with a demodulator that recognizes the watermark receives a watermarked broadcast, it can impose restrictions on copying and redistribution, just like the broadcast flag.

Like the broadcast flag, watermarking imposes no significant costs on broadcasters because the signal already exists within the programming. Watermarking also imposes no costs on owners of legacy devices because the transmission remains unencrypted. However, successfully licensing the technology could prove more difficult than licensing an encryption protocol. While any company could develop a new method of encrypting data, the watermarking process of embedding a code in a signal is covered by 65 patents and 300 pending patents owned by Digimarc and Macrovision.⁴² Implementing a watermarking regime will require negotiating a license from these parties for everyone that embeds a watermark or uses a demodulator to recognize one. Additionally, detecting and implementing a watermark signal is technologically more difficult than the broadcast flag, which would increase the cost of the demodulating equipment in every DTV-capable device.

Veridian Comments], available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513299133.

39. See Comments of Digimarc Corp. & Macrovision Corp. at 7, *In re Digital Broadcast Copy Protection*, MB No. 02-230 (Fed. Comm'n Comm. Dec. 5, 2002) [hereinafter Digimarc & Macrovision Comments], available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513394411.

40. This was discussed by the FCC in *In re Digital Broadcast Content Protection*, 18 F.C.C.R. at 23561-62 ¶¶ 25-26.

41. See Digimarc & Macrovision Comments, *supra* note 39, at 8.

42. DIGIMARC, CAPABILITIES BRIEF: PROTECTING VIDEO IN THE DIGITAL AGE 11 (2002), available at <http://www.digimarc.com/docs/analogHole/Protecting%20Video%20Brief%20FINAL.pdf>.

D. Interest Group Politics and the Broadcast Flag

Given the thorny issues involved in requiring all DTV signal receivers to include hardware that would give effect to the broadcast flag, the FCC requested comments from concerned groups on how to proceed.⁴³ Among its concerns, the FCC asked for guidance on which technological measure would best prevent infringement while still serving consumers' needs.⁴⁴ The FCC's call for comments generated thousands of responses.⁴⁵ Understanding the stakes involved in the DTV transition for the different interest groups is crucial to evaluating possible solutions to the current impasse.

1. Content Providers

Content providers rely on copyright to protect the value of the programming they create. Without the compensation provided by movie tickets, DVD sales, syndication rights, and other avenues for licensing their programming, content providers cannot recoup the massive costs of creating movies and shows. Accordingly, the Motion Picture Association of America (MPAA)⁴⁶ lobbied vigorously for the immediate implementation of the broadcast flag,⁴⁷ arguing that the threat of digital piracy would force them to keep digital programming off the airwaves.⁴⁸ Withholding programming would destroy syndication and resale markets and force the creation of a "two-tiered" media market of premium content on cable and satellite systems, and inferior content on traditional broadcast television.⁴⁹ Such arguments indicate that the content providers do not seek to com-

43. See *In re Digital Broadcast Copy Protection*, 17 F.C.C.R. at 16028-29 ¶¶ 4-9.

44. See *id.* at 16028 ¶ 6.

45. Thousands of comments were filed in response to the agency's [notice of proposed rulemaking]. Owners of digital content and television broadcasters urged the Commission to require DTV reception equipment to be manufactured with the capability to prevent unauthorized redistributions of digital content. Numerous other commenters voiced strong objections to any such regulations, contending that the FCC had no authority to control how broadcast content is used after it has been received.

Am. Library Ass'n v. FCC, 406 F.3d 689, 691 (D.C. Cir. 2005).

46. The MPAA wrote on behalf of numerous Hollywood groups, including ABC, CBS, Fox, ASCAP, Hollywood trade unions, the Screen Actors Guild, and the Writers' Guilds. See Joint Comments of the MPAA et al., *In re Digital Broadcast Copy Protection* at 1, MB No. 02-230 (Fed. Commc'ns Comm. Dec. 6, 2002) [hereinafter MPAA Comments], available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513395156.

47. *Id.* at 12.

48. See *id.*

49. *Id.* at 10.

pletely eradicate infringement, because even cable and satellite systems are vulnerable to the analog hole. Instead, content providers rationally seek to raise the cost of infringement by making it more difficult for the ordinary consumer, while tolerating a background, or efficient, level of infringement.⁵⁰

Not all media groups are purely interested in regulating DTV to protect their copyrights. While the National Football League (NFL) and its supporters⁵¹ expressed similar concerns about online piracy, they also worried about the effectiveness of local blackouts to drive stadium ticket sales if viewers outside the blackout area could share the game with those within.⁵² Whereas the MPAA hopes that strong anti-piracy provisions will protect its copyrights, the NFL is concerned about losing its ability to fill stadium seats by leveraging its copyright on the televised version of the game.⁵³ Commentators have criticized the NFL for this position, arguing that the NFL is illegitimately using copyright law to enhance profits in other business sectors.⁵⁴

The content providers have generally threatened to hold out and confine their digital programming to cable and satellite markets, absent some form of copy protection. Viacom articulated this absolutist policy when it first appeared before the FCC: "if a broadcast flag is not implemented and enforced by Summer 2003, Viacom's CBS Television Network will not provide *any* programming in high definition for the 2003-2004 television season."⁵⁵ This segregation of programming would work to the detriment of the tens of millions of mainly low-income consumers who rely on

50. "I do not mean to imply that we seek absolute protection against unauthorized use of our movies. We understand that committed pirates will break any security measures we can devise and these pirates will have to be dealt with by way of criminal and civil legal remedies." *Glickman Statement, supra* note 22, at 54. As explained by a critic of the broadcast flag, "modern [digital rights management] technology is mostly successful in keeping honest people honest." *Piracy Prevention and the Broadcast Flag: Hearing Before the Subcomm. on Courts, the Internet, and Intellectual Property of the H. Comm. on the Judiciary*, 108th Cong. 49-56 (2003) (statement of Edward J. Black, President and CEO, Computer and Commc'ns Indust. Ass'n).

51. The NFL wrote on behalf of the NBA, MLB, NHL, WNBA, PGA, LPGA, and NCAA. Comments of National Football League et al., *In re Digital Broadcast Copy Protection* at 1, MB No. 02-230 (Fed. Commc'ns Comm. Dec. 6, 2002), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513394221

52. *Id.* at 7-8.

53. *Id.*

54. See Rob Pegoraro, *TiVo vs. the Broadcast Flag Wavers*, WASH. POST, Aug. 1, 2004, at F6.

55. Viacom Comments, *supra* note 23, at 1.

broadcast television by denying them the breadth of programming available to consumers who pay for satellite or cable.⁵⁶

2. Broadcasters

Broadcasters derive their revenue from advertising, which depends on the number of viewers who watch the programming they air. Broadcasters directly compete with cable and satellite service providers for viewers.⁵⁷ Because content providers threatened to withhold content and provide it only to these competitors, broadcast groups adamantly supported the implementation of a broadcast flag regime.⁵⁸ The North American Broadcasters Association (NABA), Corporation for Public Broadcasting (CPB), and NBC all argued that absent some form of copyright protection, they would not be able to broadcast high-quality digital content to their viewers.⁵⁹

While the broadcasters are not directly harmed by online infringement, their interests remain firmly aligned with the content providers. Because their needs only demanded the minimum protection necessary to keep content available to them, the broadcasters supported the broadcast flag, the technology with the lowest costs for broadcasters.⁶⁰ Broadcasters apparently did not support an encryption regime because it would impose higher transmission costs and alienate viewers with legacy televisions who could no longer tune in to a broadcaster's station without buying a new television or demodulator.

3. Technology Companies

Technology companies spanned the spectrum of opinion about the broadcast flag, based on the flag's potential impact on their particular financial interests. They tended to distinguish themselves based on whether

56. "Tens of millions of American households depend upon free-over-the-air broadcast for their television reception and a central purpose of this decision is to ensure that they do not become second-class consumers of second-class content." *In re Digital Broadcast Content Protection*, 18 F.C.C.R. 23550, 23615-16 (2003) (Copp, Comm'r, dissenting in part).

57. NBC Affiliates Comments, *supra* note 23, at 2.

58. Comments of the North American Broadcasters Association (NABA), *In re Digital Broadcast Copy Protection* at 1, MB No. 02-230 (Fed. Commc'ns Comm. Dec. 6, 2002) [hereinafter NABA Comments], available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513395146

59. *Id.*; NBC Affiliates Comments, *supra* note 23, at 3; Reply Comment of Corporation for Public Broadcasting, *In re Digital Broadcast Copy Protection* at 4, MB No. 02-230 (Fed. Commc'ns Comm. Feb. 19, 2003), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513482839

60. NABA Comments, *supra* note 58, at 1.

they provided copy-protection technology or manufactured devices that will need to comply with the chosen regulatory regime. Intel, Hitachi, Matsushita, Sony, and Toshiba all voiced their support for the broadcast flag regime, which they collectively developed.⁶¹ On the other hand, Philips Electronics blasted the broadcast flag proposal as wholly insufficient to prevent infringement because of the analog hole, and claimed that requiring the flag “makes little public policy sense.”⁶² Philips instead advocated watermarking technology,⁶³ pushing the same watermarking protocols that Phillips semiconductors are capable of implementing.⁶⁴

Motorola, left out of the flag development consortium, similarly argued that the broadcast flag regime would never succeed in preventing widespread infringement, pointing to the recent failure of CSS to protect DVDs from copying.⁶⁵ It instead recommended a regime of source encryption.⁶⁶ Motorola hypothesized that opposition to encryption likely arose from parties who did not want to bear the cost of upgrading their equipment to handle encryption.⁶⁷ Motorola also noted that the FCC would need to mandate licensing terms for whatever encryption technology was chosen. Veridian showed no such subtlety in attempting to collect industry-wide royalties from the FCC’s chosen copyright protection scheme. Veridian assailed the many failures of the broadcast flag, and offered up an alternative technology—VeriFIDES, its proprietary encryption protocol.⁶⁸

61. DTLA Comments, *supra* note 34, at 1-2.

62. Comments of Philips Electronics North America Corporation, *In re Digital Broadcast Copy Protection* at 13, MB No. 02-230 (Fed. Commc’ns Comm. Dec. 6, 2002) [hereinafter Philips Comments], available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513394869.

63. *Id.* at 3.

64. Philips’ adoption of Macrovision’s latest content protection specification reflects our concern to deliver technology fully adapted to current market trends, particularly in the move from analog to digital. . . . [t]he combination of our world-beating video decoding technology and Macrovision copy protection detection system enables manufacturers to develop advanced set-top boxes, hard disk drives and DVD-recordable based personal TV entertainment systems which comply with key legislation such as the USA’s Digital Millennium Copyright Act.

Philips Semiconductors, 6 BRIEFING: TECHNOLOGY FOR CONSUMER APPLICATIONS, May 2001, at 1-9, available at http://www.semiconductors.philips.com/acrobat_download/literature/9397/75008116.pdf.

65. Motorola Comments, *supra* note 38, at 4.

66. *Id.* at 4-5.

67. *Id.* at 6.

68. Veridian Comments, *supra* note 38, at 3.

Device manufacturers, as opposed to copy protection developers, are driven to provide televisions and other devices at the lowest possible cost. They are indifferent to whether the content arrives by broadcast, cable, or satellite. Accordingly, the Information Technology Association of America (ITAA) argued that the broadcast flag standard was not ready for adoption.⁶⁹ Instead, the ITAA urged the FCC to wait and allow voluntary standard-setting bodies to compete to create a better standard.⁷⁰ The Consumer Electronics Association (CEA) took an extreme view, arguing that the FCC should disallow even voluntary use of the broadcast flag and should also prevent any signal encryption technologies from being adopted, because such regulations would impede product innovation.⁷¹

4. *The Public Interest*

A number of non-profit groups representing the public interest also weighed in with comments on the broadcast flag. The Center for Democracy and Technology endorsed the goals of a copyright protection scheme, but encouraged the FCC to remember the public's fair use rights⁷² and the cost of upgrading to new technologies.⁷³ The American Library Association (ALA) also opposed a far-reaching broadcast flag regime because of concerns about the effect the regime might have on fair use.⁷⁴ The Electronic Frontier Foundation (EFF) took a much more extreme viewpoint, urging a wholesale rejection of the broadcast flag regime because it per-

69. Comments of the Information Technology Association of America, *In re Digital Broadcast Copy Protection* at 18, MB No. 02-230 (Fed. Commc'ns Comm. Dec. 6, 2002), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513394917.

70. *Id.* at 9-10, 13.

71. Comments of the Consumer Electronics Association, *In re Digital Broadcast Copy Protection*, at 3, MB No. 02-230 (Fed. Commc'ns Comm. Dec. 6, 2002), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513397277.

72. The fair use exception allows consumers to make copies of copyrighted material in some circumstances. *See* 17 U.S.C. § 107 (2000). However, technology that prevents all copying also prevents the public from making limited fair use of copyrighted material. Fair use concerns are discussed in more depth in Section III.B *infra*.

73. Comments of the Center for Democracy and Technology, *In re Digital Broadcast Copy Protection* at 2-4, MB No. 02-230 (Fed. Commc'ns Comm. Dec. 6, 2002), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513394761.

74. *See generally* Comments of the Library Associations, *In re Digital Broadcast Copy Protection*, MB No. 02-230 (Fed. Commc'ns Comm. Dec. 6, 2002), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513394836.

ceived no additional threat of piracy from DTV.⁷⁵ The EFF also argued that the broadcast flag was an ineffective protection method⁷⁶ and that it would frustrate inter-operability between devices.⁷⁷

E. Legal Challenge to the Broadcast Flag Order

After parsing the thousands of comments received from groups like the private companies, industry groups, public interest organizations, and concerned citizens, the FCC issued a regulation requiring all devices capable of receiving DTV signals to include a demodulator that would give effect to the broadcast flag starting on July 1, 2005.⁷⁸ The order did not include any mandate that the flags attached to programming allow consumers to exercise their normal fair use rights, so the ALA immediately filed for review of the FCC's order before the D.C. Circuit Court of Appeals.⁷⁹ The ALA alleged that the broadcast flag order should be vacated because the FCC overstepped its jurisdiction in requiring that all devices recognize the flag.⁸⁰

The D.C. Circuit agreed that the FCC had overstepped its jurisdiction and vacated the FCC's order.⁸¹ The court first noted that Title I of the Communications Act of 1934 endows the FCC with authority only to regulate "interstate and foreign commerce in communication by wire and radio."⁸² While this jurisdiction is "expansive," it does not permit the FCC to regulate beyond activities that engage in "communication by wire or radio."⁸³ Accordingly, the three-judge panel turned to the question of whether requiring a demodulator to give effect to the broadcast flag was an activity engaged in "communication by wire or radio."⁸⁴

75. "Unauthorized Internet redistribution is a problem that simply has no nexus with DTV today, and is not likely to have any appreciable nexus with it in the foreseeable future." Comments of Electronic Frontier Foundation, *In re Digital Broadcast Copy Protection* at 3, MB No. 02-230 (Fed. Comm'ns Comm. Dec. 6, 2002), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513395409.

76. *Id.* at 8-11.

77. *Id.* at 15-17.

78. *In re Digital Broadcast Content Protection*, 18 F.C.C.R. 23550, 23570 ¶ 40 (2003) (requiring demodulators capable of recognizing broadcast flags); *id.* at 23576 ¶ 57 (setting compliance deadline of July 1, 2005).

79. *See Am. Library Ass'n v. FCC*, 406 F.3d 689, 695 (D.C. Cir. 2005).

80. *Id.*

81. *Id.* at 703-05.

82. 47 U.S.C. § 151 (2000).

83. *Accuracy in Media, Inc. v. FCC*, 521 F.2d 288, 293 (D.C. Cir. 1975).

84. *Am. Library Ass'n*, 406 F.3d at 703.

The Communications Act defines both “radio” and “wire communication” as including all transmission by radio, wire, cable or other like connection “of writing, signs, signals, pictures, and sounds of all kinds” as well as “all instrumentalities, facilities, apparatus, and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission.”⁸⁵ Using this definition, the court rejected the FCC’s contention that it could regulate any apparatus associated with television broadcasts, because the statute only confers authority on the FCC to regulate an apparatus “incidental to such transmission.”⁸⁶ Since the demodulator required by the Broadcast Flag Order would only implement the broadcast flag once the transmission was complete, the court determined that the demodulator was not incidental to the transmission of the signal.⁸⁷ Essentially, the court held that the FCC cannot assert jurisdiction over a device that is not actively engaged in sending or receiving a transmission.⁸⁸ Because the broadcast flag regulations all governed the operation of the demodulator after the reception of the transmission, the court vacated the broadcast flag regulations.⁸⁹

II. ESTABLISHING STANDARDS FOR COPYRIGHT PROTECTION

Enabling the switch to DTV requires setting a single copyright-protection standard.⁹⁰ A single copyright-protection technology standard is necessary to ensure that all devices can receive all broadcasts while keeping content secure. Since the D.C. Circuit vacated the FCC’s order establishing the broadcast flag as the standard, there is no single copyright-protection standard for devices that receive DTV.

This Part introduces a number of general models for setting technology standards. It then applies those models to the available copyright-protection technologies discussed above. These results demonstrate how

85. 47 U.S.C. §§ 153(33), (52) (2000).

86. *Am. Library Ass’n*, 406 F.3d at 703.

87. *Id.*

88. *Id.* at 705 (“We think that, for the reasons discussed above, the FCC *never* has possessed ancillary jurisdiction under the Communications Act of 1934 to regulate consumer electronic devices that can be used for receipt of wire or radio communication when those devices are not engaged.”).

89. *Id.* at 708.

90. The following formulation is based heavily on that found in Mark A. Lemley, *Intellectual Property Rights and Standard-Setting Organizations*, 90 CALIF. L. REV. 1889 (2002).

each copyright-protection regime can be implemented, and which scheme would best serve the consumer interest the FCC is tasked to advance.

A. A General Model for Standard Setting

Industry standards can arise from three different sources: private standard-setting organizations, market forces, or government authority.⁹¹ Under the first model, private standard-setting organizations (SSOs) work together to choose a standard to enable the development of an industry.⁹² The initial proposal for the broadcast flag came out of such a working group.⁹³ There are two distinct types of SSOs.⁹⁴ One imposes standards that control interoperability or access to a network.⁹⁵ These standards vary from the technical, like TCP/IP, to the abstract, like a uniform written language that allows the reader to understand the writer. These standards are exclusive; those who do not adopt them are locked out of the market. The other type of SSO creates guidelines for quality within an industry.⁹⁶ Examples include professional organizations like state bar associations, or quality guidelines for materials like concrete. Unlike network standards, these standards are not inherently exclusive.⁹⁷ The existence of a set of rules for a minimum quality of lawyering or concrete strength does not inherently prevent the existence of subpar lawyers or weak concrete. Quality-driven standards therefore rely on some outside authority, like the government, to compel adoption of the standard.

When an industry cannot agree on a single network standard, one can arise from the operation of the market.⁹⁸ As consumers flock to one standard or another, the industry "tips" and one standard becomes the default while the other becomes obsolete.⁹⁹ This type of standard-setting only occurs where consumers feel a network effect, meaning either a benefit from being part of a larger network or a loss from being outside the network. Without such a benefit or cost, there is no incentive to switch over. The

91. *Id.* at 1898-99.

92. *Id.* at 1898.

93. The Broadcast Protection Discussion Group worked by consensus to develop the broadcast flag. Not every party was pleased with the results (particularly Philips). See generally MPAA Comments, *supra* note 46; Philips Comments, *supra* note 62; and DTLA Comments, *supra* note 34.

94. Lemley, *supra* note 90, at 1898-99.

95. Lemley, *supra* note 90, at 1898.

96. Lemley, *supra* note 90, at 1898.

97. Lemley, *supra* note 90, at 1898.

98. *Id.* at 1897-98. For more discussion of the market dynamics of tipping, see CARL SHAPIRO & HAL R. VARIAN, INFORMATION RULES 173-190 (1999).

99. SHAPIRO & VARIAN, *supra* note 98, at 175-77.

widespread adoption of the Windows operating system is a common example of such *de facto* standard-setting in high-tech industries.¹⁰⁰ At a more abstract level, near-global use of the metric system is another example of this “tipping” phenomenon—a party who chooses to exist outside the system must pay massive transaction costs to interact with everyone inside the network.¹⁰¹ However, tipping cannot occur without the network effect to lure in consumers. For example, car brands proliferate because there is nothing one company can do to make it more beneficial for you and your neighbor to drive the same type of car. Many businesses therefore try to design network effects to create this tipping phenomenon, from “in” calling plans to ATM surcharges for non-bank members.

When industry bargaining and market forces fail to impose a standard, a properly authorized administrative body can impose one through regulations.¹⁰² For example, the FCC’s regulations promulgated under the All Channel Receiver Act that require all televisions to receive both VHF and UHF television signals are an example of mandated standard-setting when market forces and industry bargaining failed to settle on a standard.¹⁰³

Under all three models, the intellectual property rights inherent in the standard can prove a major obstacle to adoption. A patented standard can give the patent holder monopoly control over who can and cannot use the standard. Development of improvements on the patent by third parties can also block further development. Mandatory-licensing schemes can ensure equal access to the network, but there is no guarantee the license terms will be reasonable, nor that such a scheme can be agreed upon in the first place.

B. Setting Standards for the Broadcast Flag and Watermarking

The broadcast flag and watermark both require adding a small amount of data to the normal broadcast signal. They also both rely on a demodulator that can recognize the flag or watermark and appropriately protect the received programming. Beyond the details of how the signal is embedded in the programming, the technologies are similar enough to analyze under the same framework.

100. Lemley, *supra* note 90, at 1899.

101. “Industry in the United States is often at a competitive disadvantage when dealing in international markets because of its nonstandard measurement system, and is sometimes excluded when it is unable to deliver goods which are measured in metric terms.” 15 U.S.C. § 205(a)(4) (2000).

102. Lemley, *supra* note 90, at 1899. For a discussion of how the FCC helped develop the HDTV standard, see SHAPIRO & VARIAN, *supra* note 98, at 220-23.

103. See *supra* note 18.

1. *SSO Action and Market Tipping*

An SSO gave birth to the broadcast flag, so what would prevent an SSO from getting the marketplace to adopt the broadcast flag? The answer lies with how the technology functions. Both the broadcast flag and watermark attach or embed a digital signal that instructs the receiving device to take an action and restrict the use of the data, but neither the flag nor the watermark can prevent a device that does not recognize them from accessing the copyrighted data.¹⁰⁴ This aspect of the two technologies is responsible for their backward compatibility with pre-existing digital tuners. However, backward compatibility also prevents an SSO from forcing adoption of the standard because there is no mechanism to force manufacturers to include a demodulator to recognize the signal.

Even if a device manufacturer agreed with the content providers and wanted to add a demodulator to recognize the flag, doing so would raise its costs in comparison with a manufacturer that did not. This price differential, in a competitive market, would force the more expensive device out of the marketplace. Given the option between purchasing devices that recognize the flag and devices that do not, a rational consumer would also prefer the device that imposed no restrictions on his use of the content received by the device. This inability to “lock out” parties that do not adopt the standard makes an SSO that imposes the broadcast flag on its members more like a quality group than a network group. Such groups cannot successfully impose restrictions across a marketplace without the force of law.

Similarly, because there is no benefit to consumers from being inside the network of flag-recognizing devices, nor any cost to being outside of it, there will never be an incentive for them to adopt the technology. Without such an incentive, the market cannot tip toward a *de facto* standard.

2. *Government Action*

Because the broadcast flag and watermarking technologies lack this lock-out characteristic, they cannot force consumers or device manufacturers to adopt them without the force of a governing authority. However, the D.C. Circuit held that the FCC lacks such authority when it struck down the broadcast flag order as beyond the FCC’s jurisdiction.¹⁰⁵ The only way then to force society to adopt a broadcast flag or watermarking regime is for Congress to pass a law either choosing a standard or delegat-

104. *In re Digital Broadcast Content Protection*, 18 F.C.C.R. 23550, 23561 ¶ 25 (2003).

105. *Am. Library Ass’n v. FCC*, 406 F.3d 689, 703-05 (D.C. Cir. 2005).

ing authority to the FCC to adopt standards for copyright protection of digital television.¹⁰⁶

C. Setting Standards for Encryption

Encryption technology behaves differently from both the broadcast flag and the watermark because consumers who lack the proper demodulator cannot decrypt the television signal. This lock-out effect leads to different results under the standard-setting models described above.

1. SSO Action and Market Tipping

Unlike the broadcast flag or watermarking, encryption of the signal at its source would prevent devices without demodulators from accessing the data in the signal. In this situation, a consumer derives a benefit (being able to watch TV) from being inside the network and thus has an incentive to adopt the encryption standard. Accordingly, content providers could form an SSO to settle on an encryption standard and refuse to license their programming unless broadcasters used the encryption standard. Device manufacturers would also be forced to license the technology to decrypt the signals if they wanted their buyers to be able to watch anything on their devices. In exchange for licensing the key to the encryption algorithm, content providers could force the device manufacturers to prevent any unauthorized redistribution or copying of digital content.

If the parties were unable to settle on a proper royalty for use of an encryption technology, the market could still pick a winner. Broadcasters would have to select an encryption protocol for their transmissions. Content providers would only license their programming to broadcasters who used a strong enough encryption protocol to keep their content safe from piracy. Owners of encryption protocols would then have to compete with each other to license their technology to individual stations.

Manufacturers would also have to license these encryption protocols for their devices to decrypt the broadcasts. One of two scenarios would then result, based on whether device manufacturers or encryption providers possessed more bargaining power. In the first scenario, each encryption provider could force its licensee device manufacturers and licensee broadcasters to use only its encryption technology. Consumers would then be forced to purchase a device based on the channels they enjoy watching.

106. The House Subcommittee on Courts, the Internet, and Intellectual Property has begun such a process by discussing the Broadcast Flag Authorization Act of 2005. STAFF OF SUBCOMM. ON COURTS, THE INTERNET, & INTELLECTUAL PROP. OF THE H. COMM. ON THE JUDICIARY, BROADCAST FLAG LEGISLATION DISCUSSION DRAFT 11/3/2005, (2005), available at <http://judiciary.house.gov/media/pdfs/broadflag110305.pdf>.

As consumers chose one device over another, broadcasters would flock to the encryption protocol used by the devices owned by the most consumers and the market would tip to a standard.

In the second scenario, manufacturers and broadcasters would be able to license multiple encryption protocols. As long as devices could decrypt multiple standards and still be affordable, consumers would be able to enjoy all of the channels. This ideal situation would allow for complete copyright protection and for the peaceful coexistence of multiple encryption protocols because consumers' devices would not lock out the other protocols. In both scenarios, the market eventually would settle on a scheme ensuring copyright protection through one or more encryption protocols.

While encryption at the source would go against the United States' prior preference for freely accessible broadcasting¹⁰⁷ and would impose high costs on consumers (who would have to buy new devices that hopefully would match the network standard chosen by society), a market solution is feasible. However, the transaction costs involved in bargaining between content providers, broadcasters, device manufacturers, and encryption providers to settle on a standard would be prohibitive. Additionally, consumer dissatisfaction from switching costs as they are forced to purchase multiple devices to decrypt different protocols makes this purely private solution impractical.

2. *Government Action*

While the FCC could not force electronics manufacturers to recognize the broadcast flag, the FCC could potentially use its authority to intervene in the choice of encryption standards. Requiring all digital signals to be encrypted would likely be a regulation "incidental to transmission," and therefore within the FCC's authority under the D.C. Circuit's decision. However, the FCC would still lack the authority to force device manufacturers to include mechanisms to prevent redistribution or copying of the program once it was decrypted. Manufacturers could only be forced to include measures if such a requirement was bundled with a license to use the encryption standard. While strictly feasible, leveraging a license for an encryption protocol to regulate in areas already deemed outside the FCC's jurisdiction would likely run aground in the courts.

107. Drew Clark & Bara Vaida, *Digital Divide: Hollywood Versus Silicon Valley*, NAT'L J., Sept. 7, 2002, at 2532-41 ("The United States has a strong tradition of transmitting television unscrambled and available to everyone.").

III. RE-IMPLEMENTING THE BROADCAST FLAG

Based on the above analysis of standard-setting models and the costs of each technology, the broadcast flag regime appears easiest to implement. The perceived unpopularity of forcing consumers to buy new devices has prevented an encryption regime from gaining any traction in Washington, despite being technologically feasible. Watermarking has not been able to overcome perceptions that the technology is not mature enough for widespread use.¹⁰⁸ Unlike watermarking or encryption, the broadcast flag regime, with the support of the MPAA, has managed to gain significant support in Congress. On September 29, 2005, a bipartisan group of twenty Congressmen announced that they favored granting the FCC the authority it needs to impose the broadcast flag regime.¹⁰⁹ This Part evaluates Congress's plans for re-implementing the broadcast flag and offers suggestions for how the legislation could be improved to protect consumer interests.

A. The Broadcast Flag Authorization Act of 2005

Acting on demonstrated support for the broadcast flag, the House Judiciary Subcommittee on the Courts, the Internet, and Intellectual Property held hearings on the broadcast flag on November 3, 2005.¹¹⁰ The center of debate was a draft of the Broadcast Flag Authorization Act of 2005.¹¹¹ The bill would lay the legal foundation for implementing a broadcast flag regime. First, it would ratify the FCC's vacated broadcast flag order and

108. At this time, however, the record reflects that these [watermarking] technologies are insufficiently mature for implementation. . . . We encourage the further development of alternative mechanisms and technologies that could be used to protect digital broadcast content in the future. As discussed above, however, we conclude that a narrowly-tailored flag system in the near term will provide a sufficient level of redistribution control protection for DTV broadcasts at minimal cost to consumers and manufacturers.

In re Digital Broadcast Content Protection, 18 F.C.C.R. 23550, 23562 ¶ 26 (2003).

109. Declan McCullagh, *Politicians Want to Raise Broadcast Flag*, CNET NEWS.COM, Sept. 30, 2005, http://news.com.com/Politicians+want+to+raise+broadcast+flag/2100-1028_3-5886722.html.

110. *Content Protection in the Digital Age: The Broadcast Flag, High-Definition Radio, and the Analog Hole: Hearing Before the Subcomm. on Courts, the Internet, & Intellectual Prop. of the H. Comm. on the Judiciary*, 109th Cong. (2005).

111. STAFF OF SUBCOMM. ON COURTS, THE INTERNET, & INTELLECTUAL PROP. OF THE H. COMM. ON THE JUDICIARY, BROADCAST FLAG LEGISLATION DISCUSSION DRAFT 11/3/2005 (2005), available at <http://judiciary.house.gov/media/pdfs/broadflag110305.pdf>.

cause it to take effect on the date of the DTV transition.¹¹² Second, it would grant the FCC authority to make “such additional regulations and certifications as are necessary” to implement the broadcast flag order.¹¹³ Lastly, the FCC would also have the authority to “reconsider, amend, repeal, supplement, and otherwise modify” any such regulations and certifications.¹¹⁴ The draft bill provides no other guidance to the FCC. It does not require the FCC to force the broadcast flag to make exceptions for fair use. It does not lay down any guidelines for the certification of technologies as compliant with the broadcast flag. In short, the bill hands the FCC the power to regulate anything that transmits or receives a DTV signal.

Congress should not grant such broad and unguided authority to the FCC. Instead, Congress should direct the FCC’s development of the rules governing DTV in two areas. First, Congress should require the FCC to add fair use protections to the broadcast flag regime. Second, Congress should establish guidelines for the process of certifying devices as complying with the broadcast flag regulations, to prevent hostile interest groups from inappropriately interfering with certification, a result known as agency capture.

B. Fair Use Concerns

Because the broadcast flag can prevent a device from allowing a user to make any copies of a program, it can prevent the public from exercising its statutorily granted fair use rights.¹¹⁵ One example of fair use is taking limited portions of a copyrighted work for “criticism, comment, news re-

112. *Id.* § 101(i).

113. *Id.* § 101(x).

114. *Id.* § 101(ii). For a convincing argument that the FCC is the institution best-suited to implement the broadcast flag regime, see Molly Shaffer Van Houweling, *Communications’ Copyright Policy*, 4 J. ON TELECOMM. & HIGH TECH. L. (forthcoming 2006).

115. 17 U.S.C. § 107 (2000). The Supreme Court in *Campbell v. Acuff-Rose Music*, 510 U.S. 569, 577 (1994) noted:

Congress meant § 107 to restate the present judicial doctrine of fair use, not to change, narrow, or enlarge it in any way and intended that courts continue the common-law tradition of fair use adjudication. The fair use doctrine thus permits and requires courts to avoid rigid application of the copyright statute when, on occasion, it would stifle the very creativity which that law is designed to foster.

Id. (internal citations and quotations omitted). There are no bright-line rules for when a use is fair use and when it is copyright infringement; courts properly make decisions on a case-by-case basis. *Id.* However, to make fair use of a work, a consumer must have access to the work, and not have it completely locked away by a protection measure like the broadcast flag.

porting, teaching (including multiple copies for classroom use), scholarship, or research.”¹¹⁶ However, the FCC’s broadcast flag order did not require devices in compliance with the regulation to allow consumers to circumvent the flag for these limited purposes. Instead, the FCC expected that “technologies will come forward that will preserve consumers’ reasonable expectations, including the secure distribution of broadcast television excerpts or files over the Internet in a manner consistent with copyright law.”¹¹⁷

The FCC assumed that a sufficient number of users would demand the ability to make fair use of a program to make it profitable for a manufacturer to modify its devices to allow limited fair use copying. As with all devices implementing the broadcast flag, such a device would need FCC certification before going on the market.¹¹⁸ This certification process would impose a cost on the manufacturer by increasing time to market and imposing legal fees to navigate the process. If these costs reduced profitability of devices modified to allow for fair use, then manufacturers would not bother to allow for fair use rights. Ideally, this certification process would be quick and cheap,¹¹⁹ but if Congress does not provide a statutory process to meet these goals, the process could be corrupted and abused.

C. Protecting Certification from Agency Capture

Evidence suggests that the FCC’s self-created process for approving devices has already imposed costs too high for manufacturers to market devices with fair use capabilities. Prior to the D.C. Circuit striking the broadcast flag order, thirteen requests for certification were filed with the FCC.¹²⁰ Of these, four requests featured technology that would allow viewers to transmit programming from one device to another for limited personal use. The MPAA, joined by the NFL and Major League Baseball, immediately filed oppositions to the four proposals.¹²¹

116. 17 U.S.C. § 107 (2000).

117. *In re Digital Broadcast Content Protection*, 18 F.C.C.R. 23550, 23619 (Adelstein, Comm’r, dissenting in part).

118. *Id.* at 23575-76 ¶¶ 53-57.

119. Professor Van Houweling points out that the certification process confers an additional benefit by legitimating a feature as fair use and preventing content providers from chilling development through the threat or actual filing of copyright infringement lawsuits against manufacturers that include fair use features. Van Houweling, *supra* note 114, at 124-25.

120. CENTER FOR DEMOCRACY & TECHNOLOGY, LESSONS OF THE FCC BROADCAST FLAG PROCESS 4 (2005), available at <http://www.cdt.org/copyright/20050919flaglessons.pdf>.

121. *Id.* at 6-8.

Faced with the potential for an expensive and drawn-out legal battle before the FCC, three of the four manufacturers chose to eliminate the fair use features from their products to appease the objectors and get their devices to market.¹²² Only one manufacturer, TiVo, chose to keep its features in place and continue its fight before the FCC. From application¹²³ to the FCC's eventual certification of TiVo's limited fair use features,¹²⁴ the device idled almost six months before being allowed to go to market. Had TiVo caved like the other three manufacturers, consumers would not have been able to purchase a device that allowed them to make fair use of programming within their homes, despite demand for such a feature.

Arguably, the fact that TiVo prevailed in its proceeding indicates that the certification process does function. However, there is no guarantee that the certification process will continue to function under the Broadcast Flag Authorization Act of 2005. While the Act approves the process as it is, it also allows the FCC to make any changes it sees fit. Leaving this power in the FCC's hands makes the FCC a very appealing target for capture by content providers who wish to cut back on the public's fair use rights.

Capture occurs where a regulated industry curries favor with the regulating body, to the detriment of the public that the agency is supposed to protect.¹²⁵ Capture generally requires two conditions.¹²⁶ First, the regulated industry must bear concentrated costs, or reap concentrated benefits, from rulemaking. Second, the public that benefits from regulating the industry's behavior must enjoy only small benefits, or suffer only small costs, from changes to the agency's rules. When such conditions exist, the bearer of concentrated costs has an enormous incentive to buy influence while the public that enjoys very diffuse benefits is not paying attention. In the current situation, the public enjoys the diffuse benefits of being able to make fair use of copyrighted works on the next generation of digital devices. On the other hand, media companies endure a concentrated loss

122. Once the limited transmission features were removed from the three products, the MPAA immediately dropped its opposition. *Id.* at 9.

123. Application for Broadcast Flag Certification of TiVo Inc., Proceeding 04-63 (Feb. 27, 2004), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516082665.

124. *In re* Digital Output Protection Technology and Recording Method Certifications, 19 F.C.C.R. 15876, 15879 ¶ 4 (2004).

125. See generally Sam Peltzman, *Toward a More General Theory of Regulation*, 19 J.L. & ECON. 211, 212-13 (1976); Richard B. Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1667, 1684-86 (1975).

126. The following discussion of the conditions necessary for capture generally derives from the taxonomy for legislative demand presented in WILLIAM N. ESKRIDGE ET AL., *CASES AND MATERIALS ON LEGISLATION* 54-60 (2001).

of revenue whenever a consumer substitutes fair use for another sale of programming.

A captured FCC would not need to change the rules for approving devices; it could just allow for longer opposition periods or lengthen the review process. Given that three of four manufacturers dropped out at the prospect of only a six-month review period, a longer review period could force device manufacturers to accede to content providers and drop any fair use features just to remain competitive in the marketplace. Accordingly, Congress should think twice about delegating the design of the certification process to the FCC. Instead, Congress should enshrine in the statute a fair and efficient certification procedure. This would both decrease the profitability of agency capture for interest groups and increase the cost of changing the procedure from the cost of getting the FCC to issue a new regulation to that of passing a new statute through Congress.

IV. CONCLUSION

The future of digital television remains uncertain. As the deadline for the transition is pushed back again,¹²⁷ Congress has the opportunity to protect television programming from the rampant infringement that has bedeviled the music industry. Market forces alone cannot implement solutions to this danger because the technologies involved do not produce incentives for voluntary adoption. As Congress proceeds with implementing a system for copyright protection, it should remain involved in the process and not delegate too much authority to the FCC. Instead, Congress should protect consumers' fair use expectations by designing a certification process that quickly moves technology to the market. The process should also prevent content providers from abusing the system to impose costs on manufacturers that would prevent consumers from being able to purchase technology that allows for fair use. With these protections in place, the FCC should be able to get the DTV transition back on track.

127. See *supra* note 12.

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