Television is entering the digital transition: viewers can now receive visually spectacular, crystal-clear pictures that are of far higher quality than television of the past.¹ In fact, this new digital television platform does not just exist in expensive cable or satellite television packages.² By 2006, free broadcast television will be digital too³—provided, of course, that Congress and the Federal Communications Commission (FCC) can meet their goal to complete the digital transition.⁴ As with any change in the status quo, the digital transition has far-reaching implications.

One particularly attractive consequence is that digital television (DTV) will free a significant amount of the radio spectrum for new uses.⁵ There is a finite amount of spectrum suitable for carrying information over the airwaves,⁶ and some technologies use that spectrum more efficiently than others.⁷ DTV signals are a particularly efficient use, requiring much less of the spectrum than analog television signals.⁸ Realizing the possibilities that newly available spectrum offers, then FCC Chairman Michael Powell has said, “All consumers . . . deserve a new spectrum policy paradigm that is rooted in modern-day technologies and markets. We are living in a
world where demand for spectrum is driven by an explosion of wireless technology and the ever-increasing popularity of wireless services.”

Broadcasters, however, who are the content providers of free television, have been reluctant to provide programming for digital television, for fear that consumer piracy will disrupt economically vital secondary, international, and webcast markets. More specifically, they are concerned about protecting their intellectual property rights—a content provider’s predominant source of revenue in existing economic structures—in DTV programming. Digital television amplifies vulnerabilities in broadcasters’ copyrighted, open-air transmissions because, technologically speaking, it is easier to make high-quality copies of digital broadcasts than of analog broadcasts, and many consumers do not buy what they can copy for free, even if copying is illegal. The concerns of these content providers have a profound impact on the viability of the digital transition because broadcasters are reluctant to produce and distribute programs if it is not profitable to do so. As the sole regulator of broadcast communications and the entity responsible for the digital transition, the FCC intervened to assist broadcasters and implemented a broadcast flag regulation that will limit the extent to which a viewer can copy a television program. The FCC be-


10. The Motion Picture Association of America states, for example: [F]our out of ten movies never recoup the original investment. In 2000, the average major studio film cost $55 million to produce with an extra $27 million to advertise and market, a total cost of over $80 million per film. . . .

To recoup such enormous investments, the industry relies upon a carefully planned sequential release of movies, first releasing feature films in cinemas, then to home video, and then to other media. This release sequence not only provides the best financial return for studios, but also provides consumers with choices as to how they wish to view movies, and when. This carefully planned release sequence, which includes intervals for each specific media known as “distribution windows”, are vital to the health of the industry. When piracy of a film occurs at any point in the release sequence, all subsequent markets are negatively affected.


lieves that this is a necessary step to eliminate barriers facing the digital transition.

Unfortunately, the FCC promulgated its broadcast flag regulation in a climate where tensions are high between entertainment media consumers and content providers. As a result, there is strong opposition to FCC regulation. The Electronic Frontier Foundation (EFF) dubs the FCC’s mandate an “ineffective solution to a non-existent problem.” The EFF further claims that the broadcast flag stifles the “public’s rights to receive and manipulate DTV broadcasts with technologies they choose.” Many critics, consumer groups, and at least one legal commentator claim that the broadcast flag will stifle innovation by foreclosing experimentation and adaptation. Further, beyond these substantive concerns is the question of whether the FCC even has jurisdiction to implement this broadcast flag regulation.

This Note asserts that the FCC has jurisdiction to implement the broadcast flag regulation. Part I describes broadcast flag technology and the rationale behind its implementation. Part II explains the general concept of ancillary jurisdiction, as well as how the United States Supreme Court has articulated the FCC’s ancillary jurisdiction in particular. In order to support the FCC’s jurisdiction to impose the broadcast flag regulation, Part III discusses the scope of the FCC’s traditional rulemaking authority and its relationship to ancillary jurisdiction. Parts III.A and III.B address how FCC ancillary jurisdiction over the broadcast flag regulation is consistent with both the FCC’s prior valid assertions of jurisdiction and the purposes for which the FCC exists. Part III.C discusses the practical effects of the broadcast flag in addition to the policies and wisdom behind it. The Part further explains that the broadcast flag regulation causes no need for concern because it does not limit the rights of consumers beyond current copyright law in its practical application. Finally, Part IV con-

---


cludes that the FCC is in the best position to determine that broadcast flags are in the public interest.

I. DETAILS OF THE DIGITAL TELEVISION TRANSITION AND THE BASICS OF THE BROADCAST FLAG

In 2003, the FCC adopted anti-piracy protection for digital television. This anti-piracy mechanism, known as a “broadcast flag” because it will signal that compliant recording devices should limit the digital output of certain over-the-air broadcasts, prevents mass distribution of digital media over the Internet through data encryption. The broadcast flag, at the discretion of a content owner, enables any device that receives digital television content to, upon reception, encrypt that content and protect it against unauthorized distribution. The FCC rule requires manufacturers to furnish all equipment capable of receiving DTV signals with broadcast flags.


16. The flag, which was developed to prevent unauthorized redistribution of digital programming, has two values, true and false; if the flag in a signal is set to true, a compliant recording device will prevent digital output. . . . The encoding would only be included in broadcast signals; neither cable nor satellite transmissions would be directly affected, although those services could be legally obligated to protect rebroadcasts of digital transmissions.


18. The broadcast flag scheme is entirely discretionary in the sense that a copyright owner can choose not to use it; it can be turned on and off. See supra note 16.

19. This encryption takes place at the demodulation phase; the data remains unencrypted during transmission.


cast flag technology by July 1, 2005.\textsuperscript{22} The FCC believes that the broadcast flag mechanism will "foster the transition to digital TV and forestall potential harm to the viability of free, over-the-air broadcasting in the digital age."\textsuperscript{23}

According to the FCC, the need for a universal anti-piracy mechanism stems from the transition from analog television broadcasting to digital television broadcasting.\textsuperscript{24} In 1997, the FCC "adopted a standard for DTV transmissions [and] committed itself to the goal of abandoning analog broadcasts and switching all television broadcasts to DTV by the end of 2006."\textsuperscript{25} This transition is exceedingly beneficial because it will allow more efficient utilization of the electromagnetic spectrum.\textsuperscript{26} More efficient use of the electromagnetic spectrum in turn makes bandwidth available to new and emerging technologies such as digital cellular phones.\textsuperscript{27} Additionally, by sending digital signals, broadcasters will be able to transmit information more concisely than they could with analog signals. For example, an analog broadcaster can fit only one video and two or three audio signals into a 6 MHz broadcast channel; a DTV station can transmit up to four times the information while increasing signal quality.\textsuperscript{28} However, the FCC concluded that content owners would not make high value digital content available absent some protection from mass indiscriminate redistribution.\textsuperscript{29} In other words, the problem arises due to the nature of the


\textsuperscript{22. 47 C.F.R. §§ 73.9002 to .9004.}

\textsuperscript{23. Press Release, supra note 15, at 1.}

\textsuperscript{24. This is particularly true in light of new developments such as the Internet2. Recently, Internet2 "researchers successfully sent data from Switzerland to Tokyo at speeds of 7.21 gigabits per second. That was enough speed to transfer a full-length DVD anywhere in the world in less than five seconds." John Borland, Hollywood Seeks Internet2 Tests, P2P Oversight, CNET NEWS.COM, Nov. 18, 2004, at http://news.com.com/2100-1026_35458537.html.}

\textsuperscript{25. Consumer Elecs. Ass’n v. FCC, 347 F.3d 291, 294 (D.C. Cir. 2003).}

\textsuperscript{26. Id.}

\textsuperscript{27. Id. ("The FCC can then reallocate the spectrum no longer needed by broadcasters for other uses, such as emergency and wireless communications.").}

\textsuperscript{28. Id. at 293. Increased quality means CD-quality audio, for example. Id. Additional benefits of terminating analog broadcasting in favor of digital broadcasting include the ability to broadcast in high definition format, a more limited dependence on signal strength, and a higher resistance to interference. In re Review of the Commission’s Rules and Policies Affecting the Conversion to Digital Television, 15 F.C.C.R. 5257, 5266 para. 28 (2000).}

technology; the old protection systems, which prevented disruption of secondary markets due to piracy, no longer work.\(^\text{30}\)

Users can more easily pirate high quality copies of digital broadcasts than of analog broadcasts.\(^\text{31}\) The problem is one of degree, rather than kind. A consumer can copy an analog broadcast, for example by making a VCR recording, just as easily as she can copy a digital broadcast; the key difference is that in order to mass distribute a copy of an analog broadcast, a consumer must first convert the file into digital format, whereas with digital broadcasts, such a conversion is not required.\(^\text{32}\) This is important because data is lost in each analog-to-digital conversion, and the quality of the resulting copy will be lower than a file originating in digital format that does not need to be converted. Therefore, eliminating even a single analog-to-digital conversion significantly improves program quality.\(^\text{33}\)

However, once a movie or television program is digitized as a computer file, a user can distribute the program just as she would any other data.\(^\text{34}\) With this file, making a perfect copy is a click away. She can make copies on CD-R, Zip\(^\text{®}\) drives, USB drives, or any other storage media,

\(^{30}\) This Note accepts the FCC's determination that the broadcast flag protects content providers and therefore promotes creation of copyrightable works. The extent to which intellectual property protection promotes innovation is not addressed here. See, e.g., Paul D. Marquardt & Mark Leddy, The Essential Facilities Doctrine and Intellectual Property Rights, 70 ANTITRUST L.J. 847, 868 (2003) (discussing the relationship between copyright's statutory monopoly and antitrust law). See generally Peter S. Menell, Envisioning Copyright Law's Digital Future, 46 N.Y.L. SCH. L. REV. 63 (2002-2003) (discussing copyright and digital media).

\(^{31}\) Digital Diversity, Digital Diversity: Selecting the Right Video Solution, at http://www.digitaldiversity.com.au/whichvideo.htm (last visited Feb. 5, 2005) ("[D]igital video recordings are always 100% correct and offer around twice the quality of VHS (Analogue).... Another major benefit of digital video is that you may copy it to another digital device (like a PC or Digital Camera) with absolutely no quality loss.").

\(^{32}\) A user accomplishes this through an analog-to-digital conversion: [T]he process of changing continuously varying data, such as voltage, current, or shaft rotation, into discrete digital quantities that represent the magnitude of the data compared to a standard or reference at the moment the conversion is made. ... The most common use is to change analog signals into a form that can be manipulated by a digital computer.


\(^{33}\) See E-MELD, E-Meld School of Best Practice: Conversion Homepage, at http://www.emeld.org/school/classroom/conversion (last visited Jan. 15, 2005).

then send them in the mail or distribute the data file over a network, such as the Internet.\textsuperscript{35} When the user then plays the digitized file with a media player,\textsuperscript{36} the signal is converted from the digitized data—zeros and ones—back to an analog form.\textsuperscript{37}

As a result of this technological reality, content providers' concerns over the advent of VCRs, which first allowed consumers to record and copy analog television broadcasts, are reemerging, but with greater force and with much more at stake.\textsuperscript{38} When the FCC required all broadcasts to be digital broadcasts, it essentially mandated a high quality format that was Internet-ready. Thus, the FCC inadvertently threatened content providers economically at dramatically heightened levels. The FCC's broadcast flag regulation directly addresses the threat of mass distribution of high quality programming by consumers.\textsuperscript{39} This threat is very real and is restricted by technology limitations to a lessening degree. BitTorrent and eDonkey, for example, are technologies designed specifically to facilitate a user's fast download of very large files. Each service has grown rapidly over the past two years and has been used widely to distribute full-length movies, computer games, and software.\textsuperscript{40}

The FCC designed the broadcast flag to prevent consumer mass distribution because that type of unlimited copying jeopardizes the economic viability of broadcast television. More specifically, consumer mass distribution significantly limits television broadcast's secondary, international,

\begin{enumerate}
\item[] 35. Id.
\item[] 36. For example, Windows Media Player.
\item[] 37. "The final step is accessing and then converting the bits—the digital instructions—back to analog form so the movie can be viewed." Microsoft Corporation, supra note 34.
\item[] 39. Content providers are not off-base here. The MPAA "intends to file as many as 230 lawsuits in coming weeks against individuals who have illegally shared copyrighted movie files over the Internet." Laura M. Holson, Film Group Said to Plan Suits Aimed at Illegal File Sharing, N.Y. TIMES, Nov. 4, 2004 (reporting the MPAA's intent to file as many as 230 lawsuits against individuals who had illegally shared copyrighted movie files over the Internet), available at http://www.nytimes.com/2004/11/04/technology/04 pirate.html.
\end{enumerate}
and webcast markets. These markets provide essential opportunities for content providers to recoup their costs.

II. THE TEST FOR ANCILLARY JURISDICTION

As an administrative agency, the FCC can typically act only pursuant to a congressional grant of authority. The Communications Act of 1934 (the Act) governs regulation of telecommunications in the United States; this Act established the Federal Communications Commission as an administrative body now responsible for regulating all aspects of the telecommunications industry. Notably, unlike its predecessors, the Act extended jurisdiction over telecommunications to a single expert agency, the FCC. Titles II through IV of the Act give the FCC specific jurisdiction over individual types of communication technologies. Title II of the Act governs common carriers and contains the principal set of provisions pertaining to telephony. Title III of the Act establishes the regulatory regime for broadcast services. Finally, Title IV governs the regulation of cable television.

In addition to these explicit congressional grants of jurisdiction, in certain circumstances, the FCC has "ancillary jurisdiction" under Title I of

41. FCC Digital Broadcast Order, supra note 29, at 4.
42. Id.
46. Id.
47. Id. ("The 1934 Act was not the first communications statute passed in the United States. It was, however, the first statute to bring different areas of the telecommunications industry under one statutory title and one administrative agency. Before 1934, telegraph, telephone, and radio were governed by separate laws and separate governmental bodies.").
50. BENJAMIN ET AL., supra note 45, at 6.
52. BENJAMIN ET AL., supra note 45, at 6.
54. Id.
the Act. Title I grants the FCC power to regulate "communication by wire and radio" and charges it with the duty to "execute and enforce the provisions of this Act." Moreover, Title I confers upon the FCC ancillary jurisdiction over matters that are not expressly within the scope of a specific statutory mandate but are nevertheless reasonably necessary to the FCC's execution of its statutorily prescribed functions.

This articulation of the FCC's ancillary jurisdiction is analogous to the well-known ancillary jurisdiction of Article III courts, as well as the ancillary jurisdiction of other federal agencies. Ancillary jurisdiction dictates that it would be unwise to force two independent proceedings when they are related to and dependent upon one another. In Reconstruction Finance Corp. v. Bankers Trust Co., the Supreme Court allowed a federal agency jurisdiction to adjudicate a state law claim, over which it would ordinarily lack jurisdiction to hear, when that claim was sufficiently related to a federal law dispute that the agency had statutory jurisdiction to adjudicate. Similarly, in Katchen v. Landy, the Court upheld a bankruptcy referee's power to hear and decide state law counterclaims when those counterclaims arose out of the same transaction as the bankruptcy proceeding. The Court reasoned that, "as a practical matter, requiring the trustee to commence a plenary action to recover on its counterclaim would be a 'meaningless gesture.'" Ancillary jurisdiction may also apply in Article I tribunals, agencies, and adjunct courts. The broadcast flag regulation is one of these instances: the FCC is leading the digital transition, so jurisdiction over the broadcast flag regulation follows, because the two are inextricably intertwined.

The Court has based the concept of ancillary jurisdiction on the idea that it is efficient to allow one expert decisionmaker to have jurisdiction over all substantially related matters, especially where it would be counterproductive to do otherwise. The FCC is no exception. In United States

55. Id. §§ 151-161.
58. 318 U.S. 163.
60. Id. at 334; see Schor, 478 U.S. at 852.
61. Schor, 478 U.S. at 851-53 (upholding the ancillary jurisdiction of the CFTC).
62. In practice, federal bankruptcy jurisdiction provides good examples of this idea.
v. Southwestern Cable Co., the Court upheld FCC cable television regulations before the FCC received any express congressional grant of regulatory authority over cable television. It did so under the theory of ancillary jurisdiction. Then, in United States v. Midwest Video Corp., the Supreme Court explained ancillary jurisdiction in the context of broadcast television as a test of whether the rule in question will "further the achievement of long-established regulatory goals in the field of television broadcasting by increasing the number of outlets for community self-expression and augmenting the public's choice of programs and types of services."

Although the courts have traditionally defined the FCC's Title I ancillary jurisdiction as less expansive than the FCC's regulatory authority arising under the other titles within the Act, precedent recognizes the necessity of the doctrine's application when appropriately implemented. In Southwestern Cable, the Court articulated the test for when the FCC may assert ancillary jurisdiction. Under Southwestern Cable's two-part test, the FCC may employ ancillary jurisdiction where: (1) "[T]he Commission's general jurisdiction grant in Title I of the Communications Act covers the subject of the regulation," and (2) the assertion of jurisdiction is "reasonably ancillary to the effective performance of [its] various responsibilities."

III. A PARADIGMATIC USE OF ANCILLARY JURISDICTION: THE FCC'S JURISDICTION OVER BROADCAST FLAG REGULATION

With the advent of new technologies, the reach of the FCC's ancillary jurisdiction is dynamic and subject to controversy. Much of this controversy is a variation of familiar "slippery-slope" arguments. For example, one scholar argues, "[I]f the FCC has the power to act on anything that has

63. 392 U.S. 157, 177-78 (1968).
65. Southwestern Cable, 392 U.S. at 178.
67. Id. at 667-68.
68. Sinel, supra note 48, at 348.
69. See Southwestern Cable, 392 U.S. at 172-75; FCC Digital Broadcast Order, supra note 29, at 14.
70. Southwestern Cable, 392 U.S. at 178.
something to do with communication, we have only the FCC’s self-restraint to rely on when it comes to all [I]nternet communications.\textsuperscript{71} In that vein, the American Library Association and other consumer groups are currently challenging the FCC’s authority to issue the broadcast flag regulation.\textsuperscript{72} A panel of judges on the United States Court of Appeals for the District of Columbia heard oral arguments on February 22, 2005.\textsuperscript{73}


\footnotesize{73. \textit{Id.} at Cover Page; \textit{see also} Public Knowledge, \textit{Broadcast Flag Court Challenge}, at http://www.publicknowledge.org/issues/bfcase (last visited Mar. 16, 2005). The three-judge panel consisted of Judge Harry T. Edwards, Judge David B. Sentelle, and Judge Judith W. Rogers. \textit{See} Kevin J. Heller, \textit{Induce Act Blog (Copyright Blawg)}, Feb. 19, 2005, at http://techlawadvisor.com/induce/2005/02/broadcast-flag.html. During oral argument, Judge Edwards questioned whether the FCC had “crossed the line” by requiring manufacturers to incorporate the broadcast flag technology in television devices. SiliconValley.com, \textit{U.S. Appeals Court Debates Anti-Piracy TV Technology}, Feb. 22, 2005, at http://www.siliconvalley.com/mld/siliconvalley/news/editorial/10963551.htm. The FCC’s attorney, Jacob M. Lewis, argued that the FCC had not crossed the line because lawmakers have not specifically outlawed the FCC’s actions. \textit{Id.} This Note, however, takes quite a different perspective. It suggests that the FCC’s actions have not crossed the line because the broadcast flag regulation falls within the FCC’s sufficiently limited ancillary jurisdiction. Judge Edwards expressed some concern regarding a more expansive view of the FCC’s ancillary jurisdiction by comparing the broadcast flag regulation to the FCC attempting to regulate washing machines. Declan McCullagh, \textit{Court Questions FCC’s Broadcast Flag Rules}, CNET NEWS.COM, Feb. 22, 2005, at http://news.com.com/2100-1030_3-5585533.html. However, the requirements that a regulation must fall within the FCC’s Title I jurisdictional grant and align with historically prescribed functions, in order to fit within the FCC’s ancillary jurisdiction, to some extent, serves to ameliorate this concern. \textit{See infra} notes 85-88 and accompanying text. As this Note considers, the FCC cannot regulate washing machines for the same reason it cannot regulate the Sears Tower. \textit{Id.}

On a slightly different note, during oral argument, Judge Sentelle suggested that the library and consumer groups might lack standing to challenge the broadcast flag regulation because those groups may not suffer an injury in fact. \textit{See} McCullagh, \textit{supra}. Indeed, on March 15, 2005, the panel issued an opinion requesting supplemental submissions to clarify the petitioners’ standing. Am. Library Ass’n v. FCC, No. 04-1037, slip op. at 3 (D.C. Cir. Mar. 15, 2005) ("[W]e have concluded that more is required in order for the court to determine conclusively whether petitioners have Article III standing."). The court found that “in order to establish injury in fact, petitioners must show there is a substantial probability that the FCC’s order will harm the concrete and particularized interests of at least one of their members.” \textit{Id.} at 7. More specifically, the court requested that the “petitioners . . . explain whether there is a substantial probability that the [FCC’s] broadcast flag regime will hinder the ability of any of petitioners’ members to engage in
However, such concerns regarding the FCC's alleged ballooning jurisdiction are misplaced. The FCC's ancillary jurisdiction is bounded by the strict guidelines of ancillary jurisdiction generally, and more specifically by Southwestern Cable's two-part test. This Part applies the Southwestern Cable test to the FCC's broadcast flag regulation and concludes that FCC jurisdiction is appropriate. Section A addresses the first step of the Southwestern Cable test; and Section B addresses the second step. Section C addresses the policies, realities, and implications of the broadcast flag regulation in the relevant industries. This Part ultimately concludes that the FCC has jurisdiction over the broadcast flag.

A. The FCC's General Jurisdictional Grant in Title I of the Communications Act Covers the Subject of the Broadcast Flag Regulation

Due to the nature of the subject matter the FCC regulates, the FCC must constantly respond to new technology. Congress entrusted the FCC with the dual purpose of protecting free broadcast communications and furthering the digital television transition. In pursuit of that duty, the FCC has responded to threats of various origins, most notably new technologies that jeopardize the viability of broadcast television. Whatever the nature of the threat, the FCC defends its territory in the interest of the public good. The FCC's broadcast flag regulation is the FCC's most recent defense of broadcast television, crafted to ensure the viability of broadcast television in the digital transition.

In order for ancillary jurisdiction to apply, the subject of the regulation at issue must fall within the FCC's general jurisdictional grant in Title I of the Communications Act of 1934. Broadcast television and broadcast television otherwise permissible copying and distribution of television broadcasts to distant locations and, if so, in precisely what way such hindrance is likely to occur.” Id. at 12. While the court did point out that “the administrative record provide[d] examples of legitimate uses of information technologies made by libraries that could be adversely affected by the flag rule,” it appears such references were not sufficiently persuasive to allow Article III standing. Id. at 5. In fact, Judge Sentelle stated in his dissent, “[T]he majority’s opinion appears to me not to ask the petitioner to clarify its standing, but to offer us a further record to create standing where none is present on the record before us.” Id. at 1 (Sentelle, J., dissenting). Indeed, this Note argues that, as of yet, there is no indication that the broadcast flag will substantially hinder legitimate copying and distribution of television broadcasts. Apparently, this fact has not escaped the court, or, at least, the panel is questioning how much harm the broadcast flag will actually do.

For an enlightening discussion of federal court standing doctrine, see William A. Fletcher, The Structure of Standing, 98 YALE L.J. 221 (1988).
vision receivers, the subjects of the broadcast flag regulation, fall within the statutory grant. The FCC has general jurisdiction over “all interstate and foreign communication by wire or radio,” including all instrumentalities, facilities, apparatus, and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission. Many opponents of FCC jurisdiction contend that since a broadcast flag receiver is not necessary to receiving a digital television broadcast, FCC jurisdiction is inappropriate.

Contrary to this assertion, the statutory language of Title I contemplates conferring the FCC province over apparatus “incidental” to transmissions. The plain, ordinary meaning of incidental is “[o]ccurring... in fortuitous or subordinate conjunction with something else of which it forms no essential part.” Broadcast flag receivers are related and, at a minimum, incidental to the receipt of television broadcast. While it is by no means definitive that the broadcast flag regulation falls within the FCC’s authority, Title I is certainly open to that interpretation; it is a meaning the words will bear. Moreover, under Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc., “if [a] statute is silent or ambiguous with respect to [a] specific issue, the question for the court is whether the agency’s answer is based on a permissible construction of the statute.” Title I does not explicitly say anything about a broadcast flag, and it is apparent that the FCC interprets Title I under a plain, ordinary meaning. Thus, a textual analysis implies that the broadcast flag regulation falls within the FCC’s general jurisdictional grant.

However, this is not the end of the inquiry; the scope of the FCC’s general jurisdictional grant is bounded by the FCC’s historical functions. Although the FCC has never regulated the recording or copying of broadcasts before, it has regulated television hardware involved in the reception of television signals, as the broadcast flag regulation requires. The FCC

74. FCC Digital Broadcast Order, supra note 29, at 14-15 (“[W]e find that television receivers... come within the scope of the Commission’s general authority.”).
76. Id. § 153(33) (emphasis added).
77. Opening Brief of Petitioners, supra note 72, at 26-8 (“[A] DTV set does not need to include a flag to improve reception or avoid electrical interference from other devices.
80. Id. at 843.
sets standards for all kinds of devices in order to prevent interference or misuse of communications systems falling within its Title III jurisdiction. The FCC has regulated devices that receive black-and-white television signals, color television signals,\textsuperscript{82} ultra high frequency (UHF) signals,\textsuperscript{83} and digital television signals.\textsuperscript{84} Because the broadcast flag regulation is not particularly unique compared to other FCC regulations, the FCC’s historical functions dictate that the presumption should be in favor of allowing the FCC jurisdiction.

Furthermore, the broadcast flag requirements are not unusual in terms of the television components that they regulate. The broadcast flag regulation would require that a television receiver have a “software demodulation product.”\textsuperscript{85} Per prior, undisputed FCC regulations, this same receiver component, when used in a television set, must already comply with certain construction requirements\textsuperscript{86} and include a closed-captioning decoder.\textsuperscript{87} Thus, it is no extension of authority to allow the FCC to regulate a television component that it already regulates. This is in sharp contrast to situations where courts have declined to extend the FCC’s jurisdiction, which often occurs when the FCC’s attempted assertion of jurisdiction strays from its historically prescribed functions. For example, in \textit{Illinois Citizens Committee for Broadcasting v. FCC}, the United States Court of Appeals for the Seventh Circuit held that the FCC lacked jurisdiction over the construction of the Sears Tower.\textsuperscript{88} Unlike its dominion over television receivers, the FCC does not regulate building construction, despite the fact that tall buildings can block television signals.

In addition, Title I confers authority on the FCC to address broadcast misuse, for example, the inefficient use of broadcast spectrum. Like regulations of the past, the broadcast flag regulation addresses a broadcast


\textsuperscript{83} 47 U.S.C. § 303(s) (2000) (granting the FCC authority to require that apparatus designed to receive television signals be capable of adequately receiving all frequencies).


\textsuperscript{87} \textit{Id.} § 15.122.

\textsuperscript{88} 467 F.2d 1397 (7th Cir. 1972).
misuse, namely unauthorized copying,\textsuperscript{89} and it is well established that preventative measures designed to curb broadcast misuse sit squarely in the FCC's Title I domain. As early as 1962, Congress adopted legislation to allow the FCC to require that all television receivers "for sale or resale to the public be capable of receiving both UHF and VHF [very high frequency] frequencies."\textsuperscript{90} Congress passed legislation "[t]o amend the Communications Act of 1934 in order to give the Federal Communications Commission certain regulatory authority over television receiving apparatus."\textsuperscript{91} Prior to this receiver requirement, most television sets could receive only VHF signals, thus stunting the growth of UHF broadcasting.\textsuperscript{92} But because the availability of UHF broadcasting increased the available spectrum, the FCC found it was in the public interest to promote UHF television.\textsuperscript{93} The broadcast flag regulation over television receiving apparatus prevents the misuse of DTV and protects the public interest in the same way that the FCC's regulation over television receivers protected UHF broadcasting in the twentieth century.

Today, both Congress and the FCC have determined that digital television is in the public interest because it too increases the available spectrum. Congress and the courts have recognized the FCC's authority to further the DTV transition. In 2003, the D.C. Circuit affirmed the FCC's authority to require manufacturers to equip televisions with digital receiv-

\textsuperscript{89} See Broadcast Services; Radio Stations, Television Stations, 66 Fed. Reg. 9973-02, 9983 (Feb. 13, 2001) (related provisions codified at 47 C.F.R. pt. 73) ("[U]nlike in the analog context, digital technology enables users to make an unlimited number of virtually perfect copies of digital content. However, digital technology also can enable copyright holders of digital content to prevent misuse of copy protected material through methods not previously available."); Bentley J. Olive, Anti-Circumvention and Copyright Management Information: Analysis of New Chapter 12 of the Copyright Act, 1 N.C. J.L & TECH. 2, para. 6 (2000) (discussing the anti-circumvention provision of the Digital Millennium Copyright Act) ("C)opyrighted works made available in digital form are extremely vulnerable to unauthorized copying and distribution and . . . authors will increasingly use means, such as encryption, scrambling and passwords, in an effort to prevent misuse of their works.").

\textsuperscript{90} United States v. Southwestern Cable, 392 U.S. 157, 175 n.42 (1968).


\textsuperscript{92} Although Congress gave the FCC explicit authority here, this argument should be read in conjunction with Part III.B infra. The UHF regulations are significant precedent towards establishing the traditional scope of the FCC's authority.

\textsuperscript{93} Southwestern Cable, 392 U.S. at 174 n.40 ("[A]n adequate national television system can be achieved only if more of the available UHF channels are utilized.") (internal citation omitted).
ers. Despite the benefits of DTV, there was reluctance among the public to buy televisions with DTV receivers. This was due to a logjam [that] was blocking the development of DTV: broadcasters [were] unwilling to provide more DTV programming because most viewers [did] not own DTV equipment, and the lack of attractive DTV programming [made] consumers reluctant to invest more in DTV equipment, which, in turn, reinforces the broadcasters' decision not to invest more in DTV programming.

In its Digital Tuner Order, the FCC pointed out that this "logjam" was similar in nature to the market failure surrounding the adoption of UHF broadcasting. In other words, the lack of DTV receivers threatened the viability of digital television broadcasting, something both Congress and the FCC recognized as important to the efficient utilization of the electromagnetic spectrum. Thus, the court held that "the Commission reasonably determined to take action to bring digital tuners to the market in quantity and at reasonable prices, so that the DTV transition may move at the pace required by Congress."

As with UHF broadcasts, the FCC is legitimately regulating to ensure that free broadcast DTV does not fail in its infancy. The reasoning behind the UHF receiver regulation stemmed from the FCC's desire to anticipate and prevent "characteristically serious financial difficulties of UHF and educational television broadcasters." It was acceptable for the FCC to "plan in advance of foreseeable events, instead of waiting to react to them," and act before the UHF stations failed in their infancy. Similarly, regarding the broadcast flag regulation, the FCC stated: "We con-

95. Id. at 300.
96. Id.
97. FCC Digital Tuner Order, supra note 84, at 15,990 para. 27.
100. Consumer Elecs. Ass'n, 347 F.3d. at 301 (internal citations omitted).
101. It is true that the television and movie industries are attempting to protect their intellectual property rights through individual lawsuits. But the viability of this type of judicial protection alone is uncertain, as the music industry cases suggest. See, e.g., Metro-Goldwyn-Mayer Studios, Inc. v. Grokster Ltd., 380 F.3d 1154 (9th Cir.), cert. granted, 124 S. Ct. 686 (2004). This is especially true considering feasibility issues and consumer "backlash" reactions to lawsuits. Holson, supra note 39.
102. Southwestern Cable, 392 U.S. at 176.
103. Id. at 177.
clude that by taking preventative action today, we can forestall the development of a problem in the future similar to that currently being experienced by the music industry. . . . [This] will ensure the continued availability of high value DTV content to consumers through broadcast outlets." 104 Contrary to critics' claims, 105 timing may be crucial with respect to the fate of digital television. 106

Just as the FCC's DTV and UHF receiver regulations were administrative responses by an expert agency designed to protect broadcast television, so is broadcast flag regulation. Therefore, given the historical trend, the FCC's general grant in Title I covers the subject of the regulation, broadcast flag receivers. This does not imply, however, that the FCC has jurisdiction to regulate every aspect of television receivers. The FCC has jurisdiction to regulate broadcast flag receivers only if the assertion of jurisdiction is "reasonably ancillary to the effective performance of the [FCC's] responsibilities." 107

B. The FCC's Assertion of Jurisdiction over Broadcast Flag Receivers Is Reasonably Ancillary to the Effective Performance of Its Responsibilities

Congress has determined that the digital transition is necessary to ensure efficient and nationwide communication service to all. 108 The FCC has authority to implement the transition under 47 U.S.C. § 3090(j)(14). 109 Such a role is conducive to the FCC's longtime protective function to act "consistent[ly] with the public interest . . . [in] the establishment and healthy maintenance of television broadcast service." 10 However, despite the numerous benefits the digital transition will bring, 111 the 2006 dead-

104. FCC Digital Broadcast Order, supra note 29, at 5-6.
106. FCC Commissioner Michael Copps noted that "[e]ach time a consumer goes out and purchases an analog set, we move farther and farther away from the congressional objective." Id. The FCC believes that inaction itself could contribute to the failure of broadcast DTV: broadcasters would go out of business and manufacturers would stop selling DTV receivers for lack of demand.
111. See supra notes 5-9 and accompanying text.
does not seem realistic at present. Under the Act, the transition will be delayed unless a minimum of 85% of households in the market have televisions capable of receiving digital signals.\textsuperscript{113} The broadcast flag is a proactive move on the part of the FCC to avoid this delay. This initiative promotes the core communications function of the FCC as well as its specific role in the DTV transition.\textsuperscript{114}

From the agency’s early roots,\textsuperscript{115} Congress molded the FCC to ensure that communications over the airwaves served “public interest, convenience, or necessity.”\textsuperscript{116} Furthermore, the Act’s “terms purposes and history”\textsuperscript{117} all indicate that Congress envisioned a “comprehensive regulatory system for the [broadcasting] industry.”\textsuperscript{118} Thus, the FCC is charged not only with regulating broadcast communications over the airwaves, but also with ensuring viability of the industry. The FCC is required to make available “to all the people of the United States . . . a rapid, efficient, Nationwide, and world-wide wire and radio communication service.”\textsuperscript{119}

Because the broadcast flag regulation directly affects the viability of digital broadcast television, the regulation falls within the FCC’s ancillary jurisdiction. In \textit{Southwestern Cable}, the Supreme Court addressed whether the FCC had authority to regulate cable television (CATV) before Congress explicitly passed legislation to that effect. The court reasoned that CATV created “substantial competition” for local broadcasting.\textsuperscript{120} The possibility that CATV could have a “substantial negative effect upon station audience[s] and revenues” was enough to allow the FCC to regulate the area under Title I.\textsuperscript{121} This was because the CATV restrictions were “reasonably ancillary to the effective performance of the Commission’s various responsibilities for the regulation of television broadcasting.”\textsuperscript{122} Furthermore, the Court made clear that “[n]othing in the language of [42 U.S.C.] §152(a) . . . limits the Commission’s authority to those activities and forms of communication that are specifically described by the Act’s

\begin{itemize}
  \item \textsuperscript{112} 47 U.S.C. § 309(j)(14).
  \item \textsuperscript{113}  Id. § 309(j)(14)(B)(iii)(II).
  \item \textsuperscript{114} See generally Consumer Elecs. Ass’n, 347 F.3d at 291 (discussing why the FCC has authority over the DTV transition).
  \item \textsuperscript{115} See Radio Act of 1927, 47 U.S.C. §§ 81-119 (repealed 1934). The Radio Act of 1927 was a predecessor to the Communications Act.
  \item \textsuperscript{116} BENJAMIN ET AL., supra note 45, at 4 (citations omitted).
  \item \textsuperscript{117} United States v. Southwestern Cable Co., 392 U.S. 157, 168 (1968).
  \item \textsuperscript{118} FCC v. Pottsville Broad. Co., 309 U.S. 134, 137 (1940).
  \item \textsuperscript{119} 47 U.S.C. § 151 (2000).
  \item \textsuperscript{120} Southwestern Cable, 392 U.S. at 165.
  \item \textsuperscript{121} Id.
  \item \textsuperscript{122} Id. at 178.
\end{itemize}
The explosive growth of the Internet and file sharing threatens broadcast television today, just as CATV threatened broadcast television in the 1960s.

Opponents of the broadcast flag argue that the FCC is acting too early, implying that the FCC does not have jurisdiction unless DTV has already been harmed in some way. However, Southwestern Cable demonstrates that possible harm is enough to confer ancillary jurisdiction. Opponents of the broadcast flag further claim that the regulation is not necessary to the digital transition or sufficiently related to it, or they characterize the FCC’s actions as an illicit attempt to regulate copyright. However, content providers’ expected response to consumer piracy, the root cause of the broadcast flag regulation, directly threatens broadcast television in the same manner that CATV threatened broadcast television in the 1960s. This threat is particularly problematic because “there is a substantial governmental interest in promoting the continued availability of such free television programming.” In fact, this substantial governmental interest was compelling enough to prompt Justice Kennedy, one of the Court’s stronger advocates of First Amendment rights, to write for the Court upholding a rule compelling cable operators to carry broadcast station signals, despite the resulting restriction on free speech.

As a practical matter, content providers are not distinct from broadcasters, and the FCC has jurisdiction over television broadcasters. With the broadcast flag, the FCC is regulating broadcast affiliates of networks like ABC, NBC, CBS, or Fox, who today either create their own programming or buy the copyrights to the programming they broadcast. Like CATV, consumer piracy directly threatens broadcast television because broadcasters, as the content providers and copyright holders, are unwilling to broadcast in light of the threat of consumer piracy. Even opponents of the broadcast flag admit, “[I]t is beyond question that the digital world poses special threats to businesses that live or die on their ability to control

---

123. Id. at 172.
124. FCC Digital Broadcast Order, supra note 29, at 2 (“As the digital television ... transition progresses, the issue of content protection has become increasingly important and contentious.”).
129. See FCC Digital Broadcast Order, supra note 29, at 3 para. 4.
Furthermore, unlike cable and satellite television content providers, these public broadcasters are in need of the broadcast flag regulation because: (1) they are unable to encrypt their broadcast signals at the modulation phase; (2) they cannot raise their prices, as broadcast television is free; and (3) they are dependent on advertisers who will withdraw their support should mass consumer redistribution without advertising become commonplace.

Like UHF receivers and DTV receivers, a broadcast flag receiver requirement is an appropriate solution, especially given the expertise and experience of the FCC. Ordinarily the FCC has no jurisdiction over copyright, and it is not trying to regulate copyright per se. Instead the FCC is trying to accomplish its institutional goals. In fact, in the Consumer Broadband and Digital Television Promotion Act (Hollings Bill), the Senate attempted to delegate responsibility over broadcast flag regulation to the FCC, illustrating Congress's insecurity over regulating such technologically dense subject matter and relative willingness to defer such matters to FCC regulation. Appropriate deference should be given to pre-

130. Crawford, supra note 5, at 605.
131. Open broadcasts, or Free-To-Air broadcasts, by definition are not encrypted.

A company produces a good or service and sells it to customers. If all goes well, the revenues from sales exceed the cost of operation and the company realizes a profit. Other models can be more intricately woven. Broadcasting is a good example. Radio, and later television, programming has been broadcast over the airwaves free to anyone with a receiver for much of the past century. The broadcaster is part of a complex network of distributors, content creators, advertisers (and their agencies), and listeners or viewers.

Id.; see also Don Peppers & Martha Rogers, The Resurrection of Broadcast Advertising, DARWIN MAG., May 2002 (“[C]hanges will require broadcasters, other carriers and programming owners to adjust their business strategies in a major way.... Broadcasters will prefer live events not just for the size of the audience, but also because live-event viewers will not find it nearly so convenient to zap the accompanying advertising.”), at http://www.darwinmag.com/read/0502/headfirst_advertising_content.html?action=print.

133. See Consumer Elecs. Ass’n v. FCC, 347 F.3d 291, 301 (D.C. Cir. 2003) (“[A] shifting of the benefits and burdens of a regulation is well within the authority of the responsible agency.”).
134. S. 2048, 107th Cong. (Mar. 21, 2002).
135. The Senate did not vote on the Hollings Bill because it was returned to committee. However, due to the nature of the legislative process, the Supreme Court has been unwilling to put much weight on Congress' failure to act with regard to FCC jurisdiction. In Southwestern Cable, the court recognized the FCC's jurisdiction over CATV despite
dictive judgments resulting from the FCC’s “reasoned decisionmaking.” Here, the FCC determined that in the absence of protection mechanisms content providers would only air programming on more secure platforms like cable or satellite television. Thus, although with broadcast flags consumers are to some extent losing out to media companies who are gaining increasing control over what users can do with content, the broadcast flag regulation is one way to ensure that content providers/broadcasters transmit the programming to begin with, particularly after analog broadcasts are no longer an option. It is true that broadcast flag regulation is not the only way to approach the problem, in fact there are many alternatives. However, the FCC, in its judgment, chose the broadcast flag as the best method, and such a decision is the FCC’s to make.

Any jurisdictional extension that the FCC’s broadcast flag regulation represents is within acceptable limits due to the inherent nature of the FCC’s technological expertise. The FCC’s broadcast flag regulation may represent an extension of the FCC’s authority, raising slippery slope concerns. Specifically, consumer advocate groups deeply criticize the FCC’s actions as attempting to assert authority over manufacturers of equipment ranging from personal computers to PDAs—anything capable of receiving a digital broadcast signal. However, the FCC is only regulating communication broadcasts the same way it always has done, and any extension of the FCC’s authority is consistent with the boundaries of ancillary jurisdiction. Such an extension naturally occurs with the evolution of technology, especially with respect to an agency whose expertise necessarily deals with the forefront of technology. Thus, the broadcast flag regulation is reasonably ancillary to the digital transition, satisfying the second step of the Southwestern Cable test.


136. See Consumer Elecs. Ass’n, 347 F.3d at 299-300. Under the Administrative Procedure Act, a court may vacate an order only if it is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A) (2000). This Note argues that the broadcast flag regulation is within the law and the FCC’s jurisdiction, as well as in accordance with law.

137. FCC Digital Broadcast Order, supra note 29, at 4.


140. See infra Part III.C.

141. FCC Digital Broadcast Order, supra note 29, at 11-13 (noting alternatives such as encryption at the source, watermarking and fingerprinting).
C. The Practical Effects of a Broadcast Flag: What Will It Really Do?

The FCC's broadcast flag regulation has met a great deal of hostility from various consumer groups. The EFF incites its readers, "Join the Digital Television Liberation Front!" and the Consumer Federation of America asserts that "[t]he Commission has no business attempting to define a personal-digital-network-environment (PDNE) in which to confine the interoperability of electronic devices." The EFF explains its concerns:

Want to burn that recording digitally to a DVD to save hard drive space? Sorry, the [digital rights management (DRM)] lock-box won't allow it. How about sending it over your home network to another TV? Not unless you rip out your existing network and replace it with DRMd routers. Kind of defeats the purpose of getting a high definition digital signal, doesn't it?

While there is truth in the EFF's response to the broadcast flag regulation, the response is something of an overreaction. The broadcast flag will not preclude burning DVDs; manufacturers will just have to equip DVD recorders with special software that can read the flag's signals. Unfortunately, this requirement likely leads to an interoperability problem. A content recorder, equipped with the broadcast flag software, will be able to read the flag's signals while recording TV programs. That recorded copy will then play an infinite number of times on that new content recorder/player, but it will not play on an older DVD player purchased before the advent of the flag. Old DVD players will only play original store-bought or rented DVDs. Plus, consumers will also need to replace existing routers. While this is certainly a valid issue, it is not a new problem in the world of electronics. For example, recall the Betamax video tape play-


147. Id.
ers or record players. The average consumer is not particularly distraught that she cannot play records on DVD players or that Betamax videos will not play on VHS tape players.\footnote{148} Even if that were not the case, the decision to sacrifice interoperability for content protection is a decision well within the FCC's authority to make. It is important to recognize that the FCC is the best decisionmaking body to balance these concerns. In the FCC's expert opinion, the net benefits of the broadcast flag, namely preserving free broadcast television, exceed this cost—especially given the pace at which technology evolves to render old equipment obsolete.

Consumers will benefit from the broadcast flag because content providers will continue to create programming. In practice the FCC's broadcast flag regulation addresses only the threat of mass distribution of high-quality programming by consumers. Mass distribution is currently illegal under the Copyright Act, which grants the exclusive right to reproduce a copyrighted work to the copyright owner, subject to various fair uses,\footnote{149} including time and space shifting.\footnote{150} The flags make enforcement of the Copyright Act possible when it would otherwise be unfeasible or exceedingly difficult. Painstaking alternatives include bringing suit against individuals operating servers that index illegal copies of movies and TV programs used on computer networks\footnote{152} or suing individual file sharers.

\footnote{148}{It was not until the late 1970s, when European and Japanese companies developed more technically advanced machines with more accurate electronic timers and greater tape duration, that the VCR started to become a mass market consumer product. By 1980 there were three competing technical standards, with different, physically incompatible tape cassettes. . . . The two major standards were Sony's Betamax (also known as Betacord or just Beta), and JVC's VHS. Betamax was generally reckoned to make and play slightly better quality recordings, but VHS rapidly overtook it in sales. As more VHS recorders came into use, and more VHS films became available . . . eventually Betamax was squeezed out of the consumer market; though a related system called Betacam still remains in use for high quality professional recording equipment. Filmbug, Video and VHS, at http://www.filmbug.co.uk/dictionary/vhs.php (last visited Jan. 15, 2005).


\footnote{151}{At the time of the broadcast flag regulations in 2003, the FCC did not see watermarking or fingerprinting as a viable option. FCC Digital Broadcast Order, supra note 29, at 13.

However, the latter approach may no longer even be an option due to procedural difficulties. These enforcement methods are time consuming, expensive, and often ineffective, and the broadcast flag provides a practical alternative. Broadcast flags ensure the continued viability of broadcast television in the face of revenue losses due to the disappearance of traditionally cost-recouping markets. While protecting those markets, the broadcast flag will not stop a consumer from doing anything she cannot already legally do.

The broadcast flag will not remove any "fair use" of a copyrighted material. The fair use doctrine is a privilege that allows someone other than the owner of a copyright to use the copyrighted material in a reasonable manner without the copyright owner's consent. A television content recorder that permitted copying for personal use (such as a program obtained by recording a show on a home television) but prevented mass copying would be perfectly viable under a broadcast flag regime. For instance, a consumer could record programs on a TiVo system to view at a later time even if the TiVo system has a broadcast flag receiver. In fact, the FCC recently approved a TiVo system that, within a broadcast flag regime, would allow consumers to view recorded programs from nine different devices.

153. See, e.g., Order, Twentieth Century Fox Film v. Does 1-12 (N.D. Cal. 2004) (No. C 04-04862 WHA) (ruling that Fox Film could not join multiple defendants into one action and implying that Fox would have to bring actions against one person at a time), available at http://www.eff.org/IP/P2P/MPAA_v_ThePeople/20041123_2004whv12_order_severing_cases.pdf; see also John Borland, Judge Slows MPAA File-Trading Suits, CNET NEWS.COM, Nov. 24, 2004 ("[T]he MPAA had not shown good reason to bundle together 12 separate cases. [The judge] allowed the first of the suits to go ahead to a discovery process, in which the identity of the alleged file swapper will be requested from Internet service provider Pacific Bell, but he put the other 11 cases on hold."); at http://news.com.com/Judge+slows+MPAA+file-trading+suits/2100-1025_3-5466215.html?tag=nefd.top.


The reasonableness of a use is determined on a case-by-case basis applying an equitable rule of reason analysis. There are four factors in determining whether the use was a "fair use": 1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; 2) the nature of the copyrighted work; 3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and 4) the effect of the use upon the potential market for or value of the copyrighted work.

Id. (citing 17 U.S.C. § 107 (2000)).

Manufacturers can be very specific about the type of copying they limit and the type of copying they allow through the use of advanced technology. Copyright law's fair use, competition among electronics manufacturers, and the discretion of copyright owners will minimize the ability of the broadcast flag to limit functionality. The fact that the FCC approves technologies like TiVo reinforces the agency's promise that its broadcast flag regulation "in no way limits or prevents consumers from making copies of digital broadcast television content" for personal use.\(^\text{156}\) The FCC decision does not "alter the defenses and penalties applicable in cases of copyright infringement, circumvention, or other applicable laws."\(^\text{157}\) Its goal is simply to foster the digital transition, a task assigned to the FCC by Congress.

While special interests were present in the FCC's considerations, that does not detract from the integrity of the FCC's determination. Hollywood and consumer electronics makers' interests have never been aligned. In the 1920s, vaudeville players sued Marconi, claiming the radio undermined the live performance business.\(^\text{158}\) In the first half of the twentieth century, movie studios feared that television would undercut cinema ticket sales. In the 1980s, Hollywood tried to stop Sony from selling VCRs.\(^\text{159}\) The same is true of the broadcast flag; it is a much-needed compromise in a battle of this ongoing war. Part of its elegance is that it is a solution that does not stifle new technology\(^\text{160}\) or extend copyright law beyond its current reach. In fact, the FCC encourages manufacturers to continue to develop new technologies and better methods of copyright protection, such as watermarking\(^\text{161}\) and fingerprinting.\(^\text{162}\) And although Professor Lawrence Lessig

\(^{156}\) FCC Digital Broadcast Order, \textit{supra} note 29, at 6.

\(^{157}\) \textit{Id.}

\(^{158}\) Black, \textit{supra} note 146.


\(^{160}\) \textit{Contra} Crawford, \textit{supra} note 5, at 605 (claiming that the broadcast flag will keep new machines from appearing).

\(^{161}\) For example, Teletrax is the world's first global video broadcast monitoring and video asset management service. "Teletrax's technology embeds an imperceptible and indelible digital watermark into video whenever it is edited, transmitted, broadcast or duplicated. A global network of decoders or 'detectors,' then captures all occurrences of the embedded video being transmitted via satellite, cable or terrestrially and generates tracking reports for the content owners." Press Release, Medialink Worldwide, Inc., Medialink Secures $5 Million Investment for Teletrax Growth (Nov. 9, 2004), \textit{available at} http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=MDLK&script=410&layout=0&item_id=642112. This is potentially a superior copyright protection technology to the broadcast flag because it eliminates the "analog hole" without causing interoperability problems.

suggests that by “imposing a requirement (effectively) in the middle of the network, the broadcast flag will break all sorts of innovative new applications,”\textsuperscript{163} this is slightly misleading. The broadcast flag does not require a content provider or software developer to actually mark its content with the flag. The broadcast flag only impedes unwanted mass copying. It will not affect computer programmers and engineering innovators who want to share their ideas, software and programs, nor will the broadcast flag act as a barrier to communications over the Internet.

\section*{IV. CONCLUSION}

The broadcast flag regulation is a valid, even desirable, exercise of the FCC’s ancillary jurisdiction, as the flag is closely related to the digital transition. The FCC implemented the broadcast flag regulation as a means to protect broadcast television, and this goal comports with the FCC’s Title I statutory grant and its historical function. The FCC’s rule strikes a balance between the protection of the property rights of the content providers and the development of new technologies. This framework, in the expert opinion of the FCC, allows for the development of new technologies that respect the existing rights of digital providers in order to preserve current economic models. As a general matter, new technologies create a greater possibility for the theft of intellectual property. Content providers will only create new programming if their property is properly protected. In the area of broadcast television, the FCC must balance the property rights of all parties—content providers, the government, and consumers—against one another.

The broadcast flag reaches such a balance. The flag will not keep purchasers from copying, modifying, or inventing; they will just have to do so subject to existing rules. The FCC has demonstrated the willingness and competency to fashion rules that all can live by. Thus, not only does the case law support the conclusion that the FCC has jurisdiction over broadcast flag regulation, but it is also in the public interest for the FCC to implement the broadcast flag regulation.