

# Broadcast Flags and the War Against Digital Television Piracy: A Solution or Dilemma for the Digital Era?

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## I. INTRODUCTION

On November 4, 2003 the Federal Communications Commission (“FCC”) formally adopted the “broadcast flag” as the primary anti-piracy tool for digital television transmissions.<sup>1</sup> This regulatory measure is intended to facilitate a consumer transition from analog to digital-signal television transmissions by ensuring high quality content, thereby encouraging consumer investment in digital technologies.<sup>2</sup> The FCC’s goal is to complete the transition to digital broadcasts by 2007.<sup>3</sup> The flag is a technological measure designed “to prevent mass distribution [of digital television broadcasts] over the Internet.”<sup>4</sup> Presumably driven by fears of a repeat performance of Internet music piracy in the television industry, the FCC seeks to protect content owners before sharing becomes too widespread.

The ruling, however, has been far from uncontroversial. Critics of the regulation claim that the FCC’s response to the risk of digital television piracy is disproportionate to the actual threat posed,<sup>5</sup> and that the ruling places unnecessarily broad restrictions on the public’s ability to redistribute digital content, especially given that the regulation does not prohibit using the flag on public works.<sup>6</sup>

Nonetheless, proponents claim it is a necessary step to ensuring high-quality content on television by curbing the high costs incurred by the widespread piracy of Digital Television (“DTV”). Without this measure, proponents claim, wary content owners will move their high-quality fare to more secure cable and satellite networks, resulting in higher costs to the consumer.<sup>7</sup> In the FCC’s report, several FCC commissioners recognize the

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1. Digital Broadcast Content Protection, *Report and Order and Further Notice of Proposed Rulemaking*, 18 F.C.C.R. 23,550, para. 4, (adopted 2003) [hereinafter *Digital Broadcast Report and Order*].

2. *Piracy Prevention and the Broadcast Flag: Hearing Before the Subcommittee on Courts, the Internet, and Intellectual Property*, 108th Cong. 21-22 (2003) (statement of W. Kenneth Ferree, Bureau Chief, Media Bureau, FCC), available at [http://commdocs.house.gov/committees/judiciary/hju85490.000/hju85490\\_0.htm](http://commdocs.house.gov/committees/judiciary/hju85490.000/hju85490_0.htm) [hereinafter *Hearing*].

3. Press Release, FCC, FCC Introduces Phase-In Plan for DTV Tuners (Aug. 8, 2002), at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-225221A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-225221A1.pdf).

4. Press Release, FCC, FCC Adopts Anti-Piracy Protection for Digital TV (Nov. 4, 2003), at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-240759A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-240759A1.pdf) [hereinafter *Anti-Piracy Press Release*]. See also Center for Democracy and Technology, *Implications of the Broadcast Flag: A Public Interest Primer* 6 (Dec. 2003), at <http://www.cdt.org/copyright/broadcastflag.pdf> [hereinafter *CDT Primer*].

5. See *Digital Broadcast Report and Order* *supra* note 1, at para. 7.

6. See *id.* at paras. 37-38.

7. See *id.* at para. 6.

tension between these two interests. The commissioners approved the order adopting the flag, but dissented in part to the decision, citing the dangers of a regime which regulates such a broad range of content.<sup>8</sup>

This Note argues that the FCC's adoption of the broadcast flag as a regulatory measure is both a warranted and a proper method of protection for content owners, given the problems of piracy in other areas of mass media and the strong likelihood that such problems will continue to arise in the digital television context. Piracy of content is an inevitable consequence of the release of new media technologies. It has emerged as a significant problem across various media, from digital video disc ("DVD") movies to file sharing in music, and soon may be as significant of an issue in file sharing of digital broadcasts. Sharing of such DTV broadcasts is already possible over the Internet with current technology, though at slower speed in digital form.<sup>9</sup> However, the regulation has important flaws that should be readdressed. For example, the FCC failed to exclude news and public programming from the flag.<sup>10</sup> Also, no specific measures were taken to ensure that new digital technologies are able to emerge alongside this restriction. In order to ensure that this happens, all relevant groups should be considered in the decision-making process. Consumer groups should be allowed to respond to the industry players that have been strong supporters of the flag. Finally, the fair use doctrine must be a main consideration, and there must be enough breathing space given to the public so that it can engage in fair use of digital broadcasts. If these factors are taken into account in the drafting of further rules, the temptation to over-regulate can be sufficiently tempered and the ultimate transition to DTV can progress more smoothly.

Part II describes the workings of the flag technology and its various strengths and weaknesses as a solution to digital piracy. Part III examines whether the FCC had actual authority in passing such a measure, as well as how the different commissioners voted on the measure. Part IV considers the implications of this solution on both existing copyright principles and public policy concerns, including the possible blocking of innovation and information in the marketplace and how these concerns might be tempered by future FCC decisions. Part V evaluates other possible alternative solutions, addresses the current challenge to the validity of the FCC's

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8. See *id.* at 23,615-17 (statement of Comm'r Jonathan S. Adelstein Approving in Part, Dissenting in Part); *id.* at 23,618-21 (statement of Comm'r Michael J. Copps Approving in Part, Dissenting in Part).

9. See Public Knowledge, *The Broadcast Flag and the DTV Transition* (on file with the *Federal Communications Law Journal*).

10. *Digital Broadcast Report and Order*, *supra* note 1, at para. 38.

order, and addresses whether such a challenge may have merit in the courts. The Author concludes that the flag regulation is the most viable option for those affected in the industry and the public.

## II. THE MECHANICS OF THE SOLUTION

### A. *The ATSC Flag*

Most digital broadcasts are transmitted “in the clear,” meaning they are unencrypted and thus readily capable of unauthorized distribution.<sup>11</sup> The Advanced Television Systems Committee (“ATSC”),<sup>12</sup> or “broadcast flag,” created by the ATSC, sends a signal to digital television reception equipment that tells it “to limit the indiscriminate redistribution of the digital broadcast content.”<sup>13</sup> The FCC order requires that DTV receptors manufactured after July 1, 2005 must be able to recognize the flag, and the FCC has issued a *Further Notice of Proposed Rule Making* to establish a process of approval for new flag-compatible technologies.<sup>14</sup>

The flag consists of a series of bits which contain a “descriptor tag” and space reserved for “optional additional redistribution control information that may be defined in the future.”<sup>15</sup> The flag is embedded within a TV program itself, and the flag sends a signal to a receptor, which in turn blocks unauthorized distribution of the program.<sup>16</sup> The DTV receptors are designed to recognize the flag and signal the TV to only output the broadcast to approved technologies, such as personal recorders, and to other approved content protection technologies, a category which has yet to be formally determined.<sup>17</sup> Hence, unapproved transmissions would not be physically feasible with the signal system in place. Larger-scale distribution of broadcasts will become much more difficult for those who want to engage in such distributions over the Internet.

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11. Robert Perry et al., *Final Report of the Co-Chairs of the Broadcast Protection Discussion Subgroup to the Copy Protection Technical Working Group*, para. 1.1 (June 3, 2002), at <http://www.cptwg.org/Assets/TEXT%20FILES/BPDG/BPDG%20Report.DOC>.

12. *Digital Broadcast Report and Order*, *supra* note 1, paras. 12-13. The Advanced Television Systems Committee is a non-profit body representing a variety of industry groups which create technical standards for digital television. Advanced Television Systems Committee, *About ATSC*, at <http://www.atsc.org/aboutatsc.html> (last visited Sept. 10, 2004).

13. *Digital Broadcast Report and Order*, *supra* note 1, para. 12.

14. *Anti-Piracy Press Release*, *supra* note 4.

15. *Digital Broadcast Report and Order*, *supra* note 1, para. 13 (quoting ATSC A/65B, Program and System Information Protocol for Terrestrial Broadcasting and Cable (ATSC 2003)).

16. *Broadcast Flag FAQ*, at [http://www.mpa.org/Press/Broadcast\\_Flag\\_QA.htm](http://www.mpa.org/Press/Broadcast_Flag_QA.htm) (last visited Feb. 4, 2005).

17. *Id.*

The Consumer Electronics Association (“CEA”), multi-channel video programming distributors (“MVPDs”), and the cable industry all approve of the ATSC flag as long as the flag is limited in scope when implemented so that it still allows consumers to be able to copy content.<sup>18</sup> In a press release shortly after the flag was adopted, the CEA’s President and CEO, Gary Shapiro, stated, “We continue to urge the Commission and broadcasters to implement the flag in a manner that respects and protects consumers’ fair use rights, and we believe some special status should have been given to news and public affairs programming.”<sup>19</sup> Shapiro’s comments signal that the real test for the broadcast flag measure will come as the FCC begins to draft the specifics of the flag’s implementation.

According to the Motion Picture Association of America (“MPAA”), the vast majority of groups that participated in the Broadcast Protection Discussion Group (“BPDG”)<sup>20</sup> approved of the broadcast flag concept, with fourteen of the seventy participating groups dissenting to the flag’s adoption.<sup>21</sup> Opponents’ key concerns include making sure that consumers will not have to invest large amounts of money to be able to take advantage of the digital broadcast technology, and that they will be able to participate in reasonable forms of content sharing.<sup>22</sup>

The National Cable and Telecommunications Association (“NCTA”) has also filed a petition for clarification of the broadcast flag rules with the FCC. The NCTA claims that the order puts an “inadvertent freeze on network innovation” for two reasons.<sup>23</sup> It requires broadcasters to either use a single modulated signal, or if broadcasters want to use a more effective or sophisticated signal, the current rules require them to seek a waiver from the FCC.<sup>24</sup> The NCTA has also filed a petition claiming that the new rules

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18. *Id.* at para. 15.

19. Consumer Electronics Association, CEA Responds to FCC Broadcast Flag Ruling (Nov. 5, 2003), at [http://www.ce.org/press\\_room/press\\_release\\_detail.asp?id=10346](http://www.ce.org/press_room/press_release_detail.asp?id=10346).

20. The BPDG was formed as “an informal, open forum created for the purpose of finding a solution to the broadcast redistribution problem.” *Hearing, supra* note 2, at 47 (statement of Fritz E. Attaway, Executive Vice President Government Relations and Washington General Counsel, Motion Picture Association of America). It is a collection of representatives from the consumer electronics, movie, cable/satellite, and information technology industries that specifically evaluated the ATSC technology.

21. Press Release, Motion Picture Association of America, MPAA Cites Broad Consensus on Broadcast Flag; Applauds Setting of July 15 Deadline for Resolving Remaining Issues (June 11, 2002), at [http://www.mpa.org/Press/Broadcast\\_Flag\\_Tauzin\\_Roundtable.htm](http://www.mpa.org/Press/Broadcast_Flag_Tauzin_Roundtable.htm).

22. *Digital Broadcast Report and Order, supra* note 1, para. 16.

23. Brigitte Greenberg, *Cable Industry Seeking FCC Reconsideration of Broadcast Flag*, COMM. DAILY, Jan. 5, 2004, available at 2004 WL 60704690.

24. *Id.*

put a greater burden on cable providers than on satellite providers.<sup>25</sup> The FCC must address these additional technical inefficiencies as it attempts to solve the many general implementation issues initially presented by adoption of the flag. By adopting the broadcast flag, the FCC has made a general statement about the need for digital content protection. Many of the technical issues have yet to be resolved, as is evident by the disagreement over such issues as robustness requirements within the industries affected.<sup>26</sup> Adoption of the broadcast flag shows the FCC's perceived need for digital content protection, but technical issues remain to be resolved.

### *B. The Flag's Technical Strengths and Vulnerabilities*

#### 1. Strengths of the Flag

The broadcast flag is a relatively straightforward technical solution because it "regulates a minimum number of products."<sup>27</sup> It would only affect modulators or demodulators—the stage at which content is transferred into a useable form.<sup>28</sup> Because the technology "would not be required to be embedded in content" itself, a content provider can, at its discretion, decide whether it "wishes to make its broadcast content available for wide redistribution."<sup>29</sup> In other words, the flag is only designed to prevent "redistribution over wide-area networks like the Internet" and consumers would still be able to copy content in their homes.<sup>30</sup>

The flag merely places a "speed bump" on the road to copying and redistribution by the regular consumer, and is not a technology that will provide perfect protection.<sup>31</sup> The broadcast flag will, at the very least, provide an important deterrent to piracy by the average consumer, though the experienced hacker will likely still continue to find ways around the technology.

The flag will still allow consumers to make physical copies of DTV programs in their homes,<sup>32</sup> thus minimizing the risk for invasions of consumers' privacy by the government. Furthermore, the flag will not require consumers to purchase any new equipment, so cost is minimized on

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25. *Id.*

26. *Digital Broadcast Report and Order*, *supra* note 1, para. 45.

27. *Hearing*, *supra* note 2, at 47 (statement of Fritz E. Attaway).

28. *Id.*

29. *Id.*

30. *Id.* at 46. (statement of Fritz E. Attaway).

31. *CDT Primer*, *supra* note 4, at 7.

32. *Hearing*, *supra* note 2, at 48 (statement of Fritz E. Attaway).

the user end and current systems will remain relevant in the digital transition.<sup>33</sup> The broadcast flag would only apply to devices such as “DTV receivers, DTV modulators, and a very limited number of related DTV consumer products.”<sup>34</sup> Thus, the cost is shifted onto those content providers who want the protection, rather than onto the consumer. However, it remains to be seen what the costs the consumer will ultimately bear as a downstream recipient.

## 2. Weaknesses of the Flag

The MPAA argues that the current broadcast flag regulations, while highly desirable, are not stringent enough to combat hacking attempts by “experienced users.”<sup>35</sup> The MPAA demands that the FCC adopt a higher level of “robustness” in its regulatory measures, not only to protect security breaches by “ordinary users,” but also to protect against experienced users and “expert hackers.”<sup>36</sup> The FCC is requiring a level of robustness that is able to protect against the tools of the ordinary user rather than an experienced hacker,<sup>37</sup> making the flag an imperfect method of content protection. However, it is hard to imagine a method that is simultaneously both hack-proof and mindful of consumer rights of access.

Another of the flag’s weaknesses is the so-called “analog hole.”<sup>38</sup> In other words, the ATSC technology does nothing to prevent a consumer from digitizing an analog recording and sending it over the Internet. Analog reconversion will need to be addressed to satisfy the security concerns of content owners, though it is not clear what the fix would be, or even if it is feasible.<sup>39</sup> Thus, the main technical weakness of the flag is a degree of vulnerability to circumvention. It is a fair statement that in any content protection scheme, there will invariably be hackers attempting to free ride on content. The challenge for the flag regime will be to ensure security and keep up with the hackers’ techniques. The FCC maintains that in practice, the analog hole problem will not “undermine the value or

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33. See *Digital Broadcast Report and Order*, *supra* note 1, at 23,614 (statement of Comm’r Kathleen Q. Abernathy).

34. *Id.* at para. 42.

35. Brigitte Greenberg, *MPAA Wants ‘Expert’ Level of Protection from Hackers in Flag*, *COMM. DAILY*, Jan. 6, 2004, at 2004 WL 60704704.

36. *Id.*

37. *Id.*

38. See *Digital Broadcast Copy Protection, Comments of Public Knowledge and Consumers Union*, MB Dkt. 02-230, 16 (2002) (hosting website no longer available) (on file with the *Federal Communications Law Journal*) [hereinafter *Consumer Comments*].

39. The Copy Protection Technical Working Group is working to develop a way to remedy analog redistribution of digital works. See *CDT Primer*, *supra* note 4, at 7 n.3.

integrity” of the flag regime as a whole, because the number of individuals who would hack is limited, as compared to the entire consumer population.<sup>40</sup> Furthermore, hackers risk criminal penalties for circumvention under the Digital Millennium Copyright Act (“DMCA”).<sup>41</sup>

The FCC’s order does not require any particular technology to carry out the content protection, but rather calls for an approval process by the Commission.<sup>42</sup> In the August 4, 2004 order, the FCC approved thirteen technologies that will give effect to the flag. Included among the technologies are digital transmission content protection (“DTCP”), high-bandwidth digital content protection (“HDPC”), as well as the more controversial TiVo system,<sup>43</sup> a “content-protection technology that allows subscribers to share recorded TV content with a limited circle of friends and family across the Internet.”<sup>44</sup> The recent order also requires that “approval of these technologies will be made on a transport-by-transport or media-by-media basis,” meaning that the approval of a particular technology may not serve as a blanket approval if the technology has other media applications.<sup>45</sup> The American Antitrust Institute has expressed concerns that this interim approval process is “without sufficient pro-competitive regulatory safeguards,” and that the FCC should take steps to “[e]nsure the interoperability” of the various content technologies with consumer products in order to maximize consumer choice.<sup>46</sup>

### III. COMMISSION AUTHORITY

#### A. *Jurisdictional Issues*

The FCC’s authority to adopt the flag technology under its regulatory powers has been questioned. The FCC claims that the basis for its authority is found in the Communications Act,<sup>47</sup> which states in part that the Commission’s purpose is to regulate interstate communication to foster an

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40. *Digital Broadcast Report and Order*, *supra* note 1, para. 20.

41. 17 U.S.C. §§ 1201(a), 1204 (2000).

42. *Anti-Piracy Press Release*, *supra* note 4.

43. Digital Output Protection Technology and Recording Method Certifications, *Order*, 19 F.C.C.R. 15,876 (2004). *See also* Press Release, FCC, FCC Approves Digital Output Protection Technologies and Recording Method Certifications (Aug. 4, 2004), at [http://www.fcc.gov/Daily\\_Releases/Daily\\_Business/2004/db0804/DOC-250532A1.pdf](http://www.fcc.gov/Daily_Releases/Daily_Business/2004/db0804/DOC-250532A1.pdf) [hereinafter *Digital Output Protection Press Release*].

44. Tania Panczyk-Collins & Paul Gluckman, *FCC Gives Green Light to Content Protection Technologies*, COMM. DAILY, Aug. 4, 2004.

45. *Digital Output Protection Press Release*, *supra* note 43.

46. *Mass Media Notes*, COMM. DAILY, June 4, 2004.

47. *Digital Broadcast Report and Order*, *supra* note 1, para. 29.



efficient communication service for the people of the United States.<sup>48</sup> This power includes the ability to regulate the transmission of communication as well as “all instrumentalities, facilities, apparatus, and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission.”<sup>49</sup>

Section 336 of the Communications Act, which addresses broadcast spectrum flexibility, authorizes the FCC to issue additional licenses for advanced television services,<sup>50</sup> including digital technologies.<sup>51</sup> Additionally, Section 336(b)(4) allows the Commission to employ “technical and other requirements as may be necessary or appropriate to assure the quality of the signal used to provide advanced television services.”<sup>52</sup> The requirements are tied into licensing or the licensee’s ability to provide supplemental services,<sup>53</sup> which are services that require a subscription fee or for which the licensee receives third-party compensation.<sup>54</sup> Those regulations include a catch-all provision which states that the FCC may “prescribe such other regulations as may be necessary for the protection of the public interest, convenience, and necessity,” which must similarly be tied into licensing or supplemental services.<sup>55</sup> From the FCC’s perspective, the broadcast flag is a measure adopted for the public interest to secure high-quality content from content providers that demand security in their investments in the digital transition. This may, however, be a rather generous reading of the Commission’s ancillary powers. It is not clear that the flag mandate is tied into the licensing process, nor would it seem to fit under supplemental services because the digital signal does not require an additional subscription charge. To shore up its authority, the FCC may need to tie in the flag to the issuing of licenses and license renewals for a clearer exercise of jurisdiction under Section 336.

Critics claim that the FCC’s authority is not nearly so clear, and that an explicit grant of power from Congress is necessary to regulate the

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48. 47 U.S.C. § 151 (2002) (stating that the general purpose of the FCC is to provide a “rapid, efficient, nationwide, and world-wide wire and radio communication service with adequate facilities at reasonable charges.”)

49. 47 U.S.C. § 153 (33) (2002). *See also Digital Broadcast Report and Order, supra* note 1, at para. 29.

50. *See* 47 U.S.C. § 336(a) (2002).

51. *See* § 336(i)(1).

52. § 336(b)(4).

53. *See* § 336(a)(2).

54. § 336(e).

55. § 336(b)(5).

generally unregulated consumer equipment manufacturers.<sup>56</sup> The FCC has regulated consumer devices in the past such as the digital TV tuner, but in that case, the FCC “relied heavily on a specific source of statutory authority.”<sup>57</sup> When the action was challenged in *Consumer Electronic Association v. Federal Communications Commission*,<sup>58</sup> the FCC action was upheld as a reasonable exercise of authority and the court noted that the “[DTV] transition is not a market-driven migration to a new technology, but rather the unambiguous command of an Act of Congress.”<sup>59</sup> While the FCC does not have a specific source of explicit authority to mandate the flag, the dicta in this opinion would indicate that Congress is driving the DTV transition through the FCC rather than through the general marketplace. Thus, the Commission would have those powers necessary to facilitate that transition and make it a full marketplace reality.

The FCC has asserted its “ancillary jurisdiction” in this case to regulate the DTV equipment because the flags are “necessary” in carrying out the mandates of efficiency and passing regulations that are in the public interest as prescribed by the Communications Act.<sup>60</sup> Under Title I of the Communications Act, the FCC can enact regulations reasonably necessary to administer an explicit statutory power. The FCC admits that although it has never exercised ancillary jurisdiction over equipment manufacturers in this fashion, “the nation now stands at a juncture where such exercise of authority is necessary.”<sup>61</sup> Such a statement is likely to raise eyebrows within the legal community because it appears that the FCC is justifying its legal authority based solely on a policy of prevention, rather than an actual and legitimate grant of power. The FCC’s add-on justification that the flag is necessary as a policy concept outside its authority is likely an ill-advised statement meant to convince others that they in fact retain the proper authority to require the flag technology. The Commission would do best to separate legal authority arguments from policy arguments underlying the decision in order to escape at least some of the criticism of the jurisdictional foundation of their actions. Nevertheless, the FCC has found that this new technology is in the public interest after its prescribed inquiry, and the burden will be on the opposing parties to show that this proposal is actually “inconsistent with the public interest,”<sup>62</sup> assuming that the FCC’s

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56. See *CDT Primer*, *supra* note 4, at 26.

57. *Id.* at 26 n.54.

58. See *Consumer Electronics Ass’n v. FCC*, 347 F.3d 291 (D.C. Cir. 2003).

59. *Id.* at 301.

60. See *Digital Broadcast Report and Order*, *supra* note 1, para. 33.

61. *Id.*

62. 47 U.S.C. § 157(a) (2002).

jurisdiction was properly exercised as ancillary jurisdiction under the Communications Act.

*B. The Vote Breakdown*

Of the FCC Commissioners, Chairman Michael Powell is one of the flag's staunchest supporters. He characterizes the flag adoption measure as "another important step in the digital television transition"<sup>63</sup> that promotes consumers' interests by ensuring that broadcasts remain on the regular network channels instead of moving to a more secure cable or satellite platform that already uses signal scrambling technologies adopted by the FCC. Commissioner Kathleen Abernathy also fully supports the measure, stating that the flag represents a rather ideal solution because it "embraces protection and deters piracy without sacrificing innovation or frustrating consumer expectations."<sup>64</sup> Consumers benefit in that they will not have to buy new televisions for the flags to work and will still be able to copy broadcasts onto video or DVD recorders.<sup>65</sup>

Commissioners Copps and Adelstein also approve of the flag, but dissent in part to the new mandate. Copps warns that "[a] broadcast flag mandate that lacked adequate protections and limits would be reprehensible public policy."<sup>66</sup> Copps objects to the fact that the FCC's Order does exclude public domain content, meaning such events as town meetings would not be able to be more widely distributed for informational and educational purposes.<sup>67</sup> In the case of information in the public domain, Commissioners Copps and Adelstein argue it is in the public's best interest to allow for wide dissemination of the content, as opposed to private broadcasts that can be more heavily limited because they are attached to individual content owners.<sup>68</sup>

Commissioner Copps is also concerned about the impact of the flag technology on personal privacy and hopes it is seriously considered as the

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63. Press Statement, Chairman Michael K. Powell, *Re: Digital Broadcast Content Protection, Report and Order and Further Notice of Proposed Rulemaking*, at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-240759A2.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-240759A2.pdf) (last visited Nov. 3, 2004).

64. *Digital Broadcast Report and Order*, *supra* note 1, at 23,614 (statement of Comm'r Kathleen Q. Abernathy).

65. *Id.*

66. *Id.* at 23,615 (statement of Comm'r Michael J. Copps Approving in Part, Dissenting in Part).

67. *Id.* at 23,616.

68. *Id.* at 23,616 (statement of Comm'r Michael J. Copps Approving in Part, Dissenting in Part), 23,621 (statement of Comm'r Jonathan S. Adelstein Approving in Part, Dissenting in Part).

process of implementation progresses.<sup>69</sup> It is presently unknown to what extent this technology will be used to track consumers' home-viewing habits and other personal information, a practice which could lead to harassment by unwanted solicitors and the like.<sup>70</sup>

### C. *Questions of Implementation*

Exactly how the flag regime will be implemented still remains somewhat of an open question. According to the FCC's report, content owners would not be required to adopt the flag, though electronics manufacturers would be required to ensure that their equipment is capable of utilizing flag technology.<sup>71</sup> The content owner has discretion to adopt the flag; however, industry players have indicated support for the flag regime, given the perceived risk of piracy and its associated costs.<sup>72</sup> Furthermore, the content technology approval process is to be determined in later FCC proceedings.<sup>73</sup> Until the adoption of a final approval process, the FCC has created an interim process that allows for applications, challenges, responses, and determinations.<sup>74</sup>

Regarding robustness requirements that define how easily hackers may be able to circumvent the technology, the FCC has adopted a robustness rule to ensure that the flag "cannot be defeated or circumvented merely by an ordinary user using generally-available tools or equipment."<sup>75</sup> This decision is a compromise generally more favorable to consumers because it will keep the overall cost of the flag down, however, it will not keep costs down as effectively as with a higher robustness requirement, or via encryption technologies. Further, "downstream devices" that handle the content such as computers, digital video recorders, and DVD recorders will be indirectly regulated because they will need to be compliant with the receivers that give effect to the broadcast flag.<sup>76</sup> In sum, the final details relating to the approved technologies that can give effect to the ATSC flag remain largely unanswered as the FCC considers the possibilities in its proposed rulemaking. The FCC is confident that such a solution is indeed needed, given that as networking and bandwidth capabilities increase, the

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69. *Id.* at 23,617 (statement of Comm'r Michael J. Copps Approving in Part, Dissenting in Part).

70. *Id.*

71. *Id.* at 23,592 (App. B §73.9008).

72. *Id.* at para. 37.

73. *Id.* at para. 62.

74. *CDT Primer, supra* note 4, at 13. See *Digital Broadcast Report and Order, supra* note 1, at 23,592-94 (App. B §73.9008).

75. *Digital Broadcast Report and Order, supra* note 1, at 23,592 (App. B §73.9007).

76. *CDT Primer, supra* note 4, at 12.

ability to more quickly download digitized broadcasts increases, creating a greater threat of widespread piracy—a threat that was fully realized within the music industry.

#### IV. IMPLICATIONS OF THE TECHNICAL SOLUTION

##### A. *Copyright Law*

The FCC states in its report that copyright laws are not at issue under the ATSC flag regime and that its resolution will have no effect on those laws.<sup>77</sup> However, it is nearly impossible that the FCC's decision was not at least in part guided by the principals of copyright law and fair use exceptions. As a result, the debate over this new regulation cannot be properly addressed without reference to the existing laws, such as the DMCA, which makes it a criminal offense in certain cases to circumvent or try to circumvent protective technologies like encryption and scrambling.<sup>78</sup> Similarly, an attempt to circumvent the ATSC flag may fall within the DMCA. The commissioners' language indicates a need to balance protective measures against the competing interests of fair consumer use.<sup>79</sup> The MPAA also states that "[t]he purpose of the broadcast flag is to signal to devices that redistribution of programs marked with the flag are not authorized by the copyright holder."<sup>80</sup> Marybeth Peters, Register of Copyrights for the U.S. Copyright Office, also acknowledged in her comments to Congress that "[w]hile the subject of the broadcast flag is technological, many of the comments arguing both for and against its adoption are rooted in copyright law."<sup>81</sup>

The FCC's main concern in this area of regulation is to maintain high-quality content on broadcast television. This goal is achieved in part by recognizing that content owners have a proprietary right in the content and the right to control how it is used by the public. The FCC seeks to prevent future copyright litigation by implementing a policy of limited consumer use of broadcast content that is confined to "fair uses" such as non-commercial and non-profit uses as upheld in *Sony Corporation of America v. Universal City Studios*.<sup>82</sup>

Peters warns that *Sony*, however, should not end the analysis of what

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77. See *Digital Broadcast Report and Order*, *supra* note 1, at para. 18.

78. 17 U.S.C. §1201 (1998 & Supp. 2004).

79. *Digital Broadcast Report and Order*, *supra* note 1, at para. 1.

80. *Broadcast Flag: Frequently Asked Questions*, at [http://www.mpaa.org/Press/Broadcast\\_Flag\\_QA.htm](http://www.mpaa.org/Press/Broadcast_Flag_QA.htm) (last visited Nov. 8, 2004).

81. *Hearing*, *supra* note 2, at 8-9 (statement of Hon. Marybeth Peters).

82. *Sony Corp. of America v. Universal City Studios*, 464 U.S. 417 (1984).

constitutes fair use in the digital context.<sup>83</sup> Certain “consumer expectation” interpretations of *Sony* may too widely cast the net of fair use by sidestepping the traditional individual case analysis in Section 107 of the Copyright Act.<sup>84</sup> Section 107 leaves expectations to the marketplace rather than including within a fair use analysis expectations, such as continued functionality of devices.<sup>85</sup> The Copyright Act lists the following factors as required in a fair use analysis: the purpose and character of the use; the nature of the copyrighted work; the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and the effect on the potential market for or value of the copyrighted work.<sup>86</sup> Thus, digital redistribution should be analyzed under this framework, rather than relying on a mere extension of *Sony*, which Peters argues relates to a much older technology and is limited to “time-shifting” use by the individual consumer.<sup>87</sup> *Sony* did not explicitly address whether further compilations or distributions by the consumer would also be fair use, and in fact, Peters maintains that such interpretations are overbroad.<sup>88</sup>

Copyrights may be weakened if the flag regulation allows too many kinds of consumer use. The Copyright Office, of course, wants any FCC policy to be in line with existing copyright policy that seeks to balance public benefit with the encouragement of the creation and distribution of new copyrightable works. In Peters’ view, this implicates perhaps a more narrow reading of *Sony* and a more conservative approach in limiting the scope of fair use in emerging technologies, both via the traditional fair use analysis and in a rejection of a “first sale” doctrine argument for expanded distribution rights for consumers.<sup>89</sup> Thus, it is virtually impossible to discuss the validity of the FCC’s action without considering its impact upon the fair use doctrine. Presumably, if the FCC does too much or too little to expand fair use, the result will be future litigation, with the courts deciding whether the broadcast flag is appropriately implemented in conforming with basic copyright standards and ultimately, whether to uphold the flag regime. It is likely the Copyright Office and consumer

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83. *Hearing, supra* note 2, at 9-10 (statement of Hon. Marybeth Peters).

84. 17 U.S.C. § 107 (2002).

85. *Hearing, supra* note 2, at 9-10 (statement of Hon. Marybeth Peters).

86. § 107.

87. *Hearing, supra* note 2, at 9 (statement of Hon. Marybeth Peters).

88. *Id.* at 9-10.

89. *Id.* at 14-15. In her statement to Congress, Peters argues that the first sale doctrine of copyright, which states that the legitimate owners have a right to do with a copy as they see fit, is not a loophole around exclusive reproduction rights. A transmission of an electronic copy of a work would be both a distribution *and* a reproduction, thus implicating the copyright owner’s exclusive right to reproduction. *Id.*

groups opposing the flag would both agree that limiting “those uses that Hollywood approves in advance, rather than those that would have been enabled by innovation in a competitive marketplace” undermines fair use.<sup>90</sup>

### *B. Public Policy Concerns*

At the heart of the public policy debate in content protection is the role the federal government should be playing in regulating a consumer industry. A significant source of criticism against the FCC’s order has been the lack of an exception for public domain content such as public television and news programs. For example, broadcasts of government meetings could potentially be flagged.<sup>91</sup> Commissioner Copps stated in his partial dissent to the order:

Broadcasters are given the right to use the public’s airwaves in return for serving their communities. The widest possible dissemination of news and information serves the best interests of the community. We should, therefore, be promoting the widest possible dissemination of news and information consistent, of course, with the copyright laws.<sup>92</sup>

Other critics that point to the public domain issue include the American Library Association and the American Foundation for the Blind.<sup>93</sup> The library associations note that media technologies, including the Internet are becoming more common teaching tools in both libraries and classrooms.<sup>94</sup> They argue that the flag threatens to significantly diminish the use of digital content. They also fear content owners will abuse their options under a flag regime and block redistribution despite the existence of a legitimate public interest in the content.<sup>95</sup> The libraries’ fear that the FCC is rewriting intellectual property law is overstated. The FCC certainly does not have the power to redefine copyright law, though it can exempt public domain information such as government meetings, campaign footage, and the like from the flag mandate altogether. While not a specific exception, the FCC maintains that use by non-profit organizations would be exempt under existing copyright law fair use principles. The nature of the use would be fair use because the content is non-profit and for the public’s

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90. ELECTRONIC FRONTIER FOUNDATION, *EFF Comments on the Final Report of the Broadcast Protection Discussion Subgroup*, 8 (May 29, 2002), at [http://www.eff.org/IP/Video/HDTV/bpdg-report/pdf/Tab\\_N-2.pdf](http://www.eff.org/IP/Video/HDTV/bpdg-report/pdf/Tab_N-2.pdf).

91. *Digital Broadcast Report and Order*, *supra* note 1, at 23,616 (statement of Comm’r Michael J. Copps Approving in Part, Dissenting in Part).

92. *Id.* at 23,616-17.

93. *Id.* at para. 18.

94. See Digital Broadcast Copy Protection, *Comments on the Promulgation of a Broadcast Flag Rule*, MB No. 02-230, 4-5 (Dec. 6, 2002), available at <http://www.ll.georgetown.edu/aallwash/BFComment.pdf>.

95. *Id.* at 10.

education.<sup>96</sup> By including an explicit exemption, the FCC may be able to avoid the additional step of litigation on the matter if and when content owners of public domain information decide to give effect to the broadcast flag.

Another major public policy concern which the flag regime raises is that innovation may be stifled due to overregulation. In his statement, Commissioner Adelstein alludes to the risk of stifling new technologies that is inherent in engaging in such a “preemptive” strike against DTV piracy.<sup>97</sup> But these preemptive measures may not even be necessary. Proponents argue that the writing is on the wall given the explosion of online music piracy and the years of legal battles between the recording industry and online file-sharing organizations like Napster. The recording industry estimates that over 2.5 billion music files are downloaded for free every month,<sup>98</sup> and the MPAA reports that it loses \$3 billion worldwide in revenue due to piracy, not including Internet movie piracy, which it estimates also causes widespread losses to the industry.<sup>99</sup> The MPAA contends that one of its greatest challenges is combating “the widespread trafficking of movies and television shows on the Internet” via illegal “peer-to-peer ‘file sharing.’”<sup>100</sup> Whether or not DTV piracy will constitute a real problem remains to be seen as the transition to digital television remains ongoing. Critics of regulating these “clear air” broadcasts point to the infeasibility of online file sharing of such broadcasts, claiming the current technologies are simply too slow to make online piracy of digital broadcasts even attractive to consumers. Thus, such a regulatory move is premature.<sup>101</sup> Furthermore, consumer groups stress that a final and informed decision on the matter is premature because there is not enough data concerning the extent of unauthorized broadcasts.<sup>102</sup> Also, they claim that digital content is not any more susceptible to piracy than analog content and might not be deserving of a higher threshold of protection.<sup>103</sup> However, this argument does not state that digital content is less

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96. See *Digital Broadcast Report and Order*, *supra* note 1, at para. 18.

97. *Digital Broadcast Report and Order*, *supra* note 1, at 23,618 (statement of Comm’r Jonathan S. Adelstein Approving in Part, Dissenting in Part).

98. Roy Mark, *College File Swapping: Making the Illegal, Legal?* (Sept. 2, 2003), at <http://dc.internet.com/news/article.php/3071331>.

99. MOTION PICTURE ASSOCIATION OF AMERICA, ANTI-PIRACY, at <http://www.mpa.org/anti-piracy> (last visited Nov. 8, 2004).

100. *Hearing*, *supra* note 2, at 46 (statement of Fritz E. Attaway).

101. See PUBLIC KNOWLEDGE, THE BROADCAST FLAG AND THE DTV TRANSITION (article is no longer available on originating website) (on file with the *Federal Communications Law Journal*).

102. See *Consumer Comments*, *supra* note 38, at 8-9

103. See *id.* at 6-8.



susceptible than other technologies to piracy either, so neither side can speak authoritatively until there are hard numbers. Given the experience with piracy in both the analog form and with digital music files, however, this anticipatory measure seems warranted.

In comments submitted to the FCC, Public Knowledge<sup>104</sup> and Consumers Union<sup>105</sup> urged the Commission to narrow the scope of the regulation, including its impact on the development of new technologies, including software-defined radio.<sup>106</sup> Generally, overregulation of computer software has the potential to slow the development of those very technologies which serve to drive the progress of DTV.<sup>107</sup> However, the concerns about innovation can be addressed in an effective way by the FCC. For example, the FCC should use specific and reasonable criteria in approving technologies, and it should approve adequate technologies to promote “interoperability.”<sup>108</sup>

## V. ALTERNATIVE SOLUTIONS

The BPDG considered the possibility of encrypting the HDTV signal at the source, rather than at the point of demodulation in order to effectuate a stronger means of protection.<sup>109</sup> However, in the BPDG’s final report, it noted that “[g]iven the current political and economic environment, this approach was rejected by motion picture studios and broadcasters, as well as by representatives of consumer electronics manufacturers.”<sup>110</sup> This suggests that requiring encryption is a very costly prospect for both industry and consumers and such a proposal would not be able to garner enough support to pass through the FCC, which has mandated that broadcasts be transmitted “in the clear”. It may be politically infeasible because the United States has a tradition of free broadcasts, and encryption

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104. Public Knowledge is a public interest group that advocates on behalf of interested public and private sector parties for maximum free exchange of information, as consistent with “democratic principles and cultural values” in the digital era. PUBLIC KNOWLEDGE, MISSION STATEMENT, at <http://www.publicknowledge.org/about/what/mission> (last visited Nov. 8, 2004).

105. Consumers Union is a non-profit group whose mission is “to test products, inform the public, and protect consumers.” The Consumers Union is perhaps best known as the publisher of the magazine, *Consumer Reports*. CONSUMERS UNION, ABOUT CONSUMERS UNION, at <http://www.consumersunion.org/aboutcu/about.html> (last visited Nov. 8, 2004).

106. See Press Release, Public Knowledge, Broadcast Flag Rules Should Be Narrow, Consumer Groups Tell FCC (Feb. 13, 2004) (on file with the *Federal Communications Law Journal*).

107. See *Consumer Comments*, *supra* note 38, at 4-5, n.7.

108. *CDT Primer*, *supra* note 4, at 29.

109. Perry, *supra* note 11, at 3 n.3.

110. *Id.*

at the source would likely mean consumers would need to buy pricey converters.<sup>111</sup>

Groups opposing the adoption of the broadcast flag have considered additional steps that may be taken to curb piracy. Public Knowledge suggests that the FCC could instead require technical mechanisms to make illegal file transfer even more cumbersome than it currently is.<sup>112</sup> However, such an effort might eventually be overtaken by advances in broadband technology and the flag would still be required as a preventative measure. Further, Public Knowledge admits, “for infringers . . . waiting hours for downloads to complete has not historically been considered a serious problem, even on the current Internet.”<sup>113</sup> Other suggestions include better law enforcement, education of consumers, and on-demand pay services for content distributed online.<sup>114</sup> All are valid approaches, but by actually blocking such distribution via the ATSC flag, the FCC has adopted a clear measure that provides more security in curbing illegal downloading as compared to other voluntary consumer measures.

Mike Goodwin, Senior Technology Counsel for Public Knowledge, suggests an alternative approach that would place a “netcast” condition on license holders.<sup>115</sup> It would require the major networks to “netcast” their night programming over the Internet via a secure media player like RealPlayer, QuickTime, or Windows Media Player.<sup>116</sup> These media, like the broadcast flag, would prevent viewers from making unauthorized copies, though neither method is “hack-proof.”<sup>117</sup> However, this netcast requirement may be “less costly to implement” given the applications are free to Internet consumers.<sup>118</sup> An advantage of such an approach, Goodwin argues, is that such a market-based solution will be able to “evolve more rapidly and respond more quickly” to new security-hacking techniques than a more bureaucratic, federally-mandated technology.<sup>119</sup> Other advantages of such a plan may include increased exposure for consumers to HDTV which would encourage increased consumer investment in the digital transition. If consumers are given the opportunity to watch their favorite

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111. *CDT Primer*, *supra* note 4, at 20.

112. *Id.*

113. *Consumer Comments*, *supra* note 38, App. B at 13. Appendix B features Michael Goodwin’s Public Knowledge White Paper, *Harry Potter and the Prisoners of the DTV Transition*.

114. *CDT Primer*, *supra* note 4, at 32-33.

115. *Consumer Comments*, *supra* note 38, App. B at 11.

116. *Id.*

117. *Id.*

118. *Id.* at 11-12

119. *Id.* at 12.

shows in DTV at their convenience on the Internet, they may very well decide to upgrade their television sets or their monitors for higher-quality viewing.<sup>120</sup>

Goodwin claims that with this solution, consumers would have “no need to junk old [analog-signal] TVs.”<sup>121</sup> For the consumer to benefit from the quality of HDTV broadcasts, they will have to invest in either new televisions or monitors. Thus it is not clear how consumers will be able to get a taste of the benefits of digital broadcasts under the netcasting strategy without spending some amount of money.

Another possibility is to allow the private sector to voluntarily set its own standards, in other words, a non-legislative regime that may allow for each industry to determine its own approach. However, this alternative is unlikely to succeed given the need to ensure that consumers have consistent functionality in their devices. If different industries adopt different standards, it is quite possible that devices will not be compatible with one another. Also, in a public regulatory process, the consumer groups are more likely to have a stronger voice than in private industry. It is important that consumers have a strong voice in the process as they are the ones affected most widely as a group by any regulation. Consumers’ comments will be key in designing an implementation process that keeps the public benefit at the forefront the regulatory considerations.

## VI. FUTURE LITIGATION: NAPSTER PART TWO?

In February, a coalition of consumer groups filed a lawsuit challenging the FCC’s decision to adopt the broadcast flag, claiming that the order is “contrary to law, arbitrary and capricious, an abuse of discretion and not supported by substantial evidence.”<sup>122</sup> The petitioners range from such groups as Electronic Frontier Foundation to the American Association of Law Libraries.<sup>123</sup> The main concern of these groups is that the regulatory regime goes too far in limiting distribution of content that should be permitted to flow freely among members of the public.

The groups may attack the decision on several grounds. First, there is the question of whether or not the administrative decision was an abuse of discretion. Opponents of the flag may claim that the FCC did not base its decision to adopt the flag on substantial evidence. Without hard piracy numbers on this particular kind of digital piracy, it is difficult to say

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120. *See id.* at 12-15.

121. *Id.* at 15.

122. Brigitte Greenberg, *Consumer Groups Challenge Broadcast Flag Protections*, COMM. DAILY (Feb. 4, 2004), at 4.

123. *Id.*

whether a preventative measure is warranted. If the FCC can drum up enough circumstantial evidence of consumer abuse of digital broadcasts, the FCC may have enough ground to justify the regulation.

Conceivably, the groups could also challenge the FCC's jurisdiction to enact the measure in the first place, as Congress has not given the FCC explicit statutory authority to adopt a flag regime to foster the DTV transition. The FCC will need to rely on its claim of ancillary jurisdiction to justify its actions. Those challenging the Commission's authority will claim that the regulation is not "necessary" under the FCC's ancillary jurisdiction in order to carry out the digital transition, or, alternatively, that the FCC should not have acted without an explicit grant of power from Congress. The FCC will rely on such cases as *Federal Communications Commission v. Midwest Video*, in which the U.S. Supreme Court required that the FCC assert its power to act to "further the achievement of long-established regulatory goals."<sup>124</sup> The challengers may argue that the digital transition is not such an established goal and will likely cite other language in the *Midwest Video* opinion that suggests ancillary jurisdiction is appropriate when the regulation is "necessary to ensure the achievement of the Commission's statutory responsibilities."<sup>125</sup> And thus, what is "necessary" will be the critical issue in a jurisdictional challenge.

## VII. CONCLUSION

The ultimate goal for the FCC's order is to foster a speedier and more efficient transition to an age of fully-digital broadcasts. The ATSC broadcast flag is a speed-bump measure which will help to ensure higher quality content by putting at least some content owners' concerns about widespread Internet piracy to rest. Although the flag is a technical measure, it does carry with it rather sweeping public policy consequences. The flag should be implemented through industry to ultimately benefit consumers. The implementation process must be approached with care and caution by the FCC in ensuring that broadcasts are not overly restricted when they may affect the public interest. The Commission must also take great care to foster continuing innovation in related digital technologies, including both hardware and software, and it can achieve this with a well-oiled and fair technology-approval process. As in many other areas of intellectual property, with this mandate a delicate balance is the final goal; that is, to balance the important public interest in the dissemination of information with the intellectual property rights of the content owners. Without the incentive to create content, the public will never benefit from the content.

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124. *FCC v. Midwest Video*, 440 U.S. 689, 698 (1979).

125. *Id.* at 706.