An Introduction to the Law and Economics of the V-Chip*

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INTRODUCTION

The Telecommunications Act of 1996 requires that all television sets sold in the United States contain a special computer chip—popularly called a "V-chip"—that will allow the viewer to program his or her television. This V-chip will allow the viewer to program the television to reject any show that has been rated too sexual, violent, or offensive in some other way. Television shows' ratings will be electronically encoded in the signal that is transmitted to the set, so the viewer will be able to program the television to reject entire classes of shows, rather than be required to make individual decisions about every program.

A television ratings system now appears to be in place. Television programs will be rated in a hierarchy: "TV-G" (for all ages), "TV-PG" (parental guidance suggested), "TV-14" (may be inappropriate for children under 14), and "TV-M" (for adults). Once large numbers of people purchase sets (or add-on boxes) with the V-chip, we will likely alter our television viewing habits substantially. In reaction, the nature of the television market may change,

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2 See Jane Hall & Brian Lowry, Industry Unveils Its Ratings System for TV Programs, L.A. Times, Dec. 20, 1996, at A1. All studios and broadcast networks, except for NBC, have agreed to the industry plan. Jane Hall, Ratings Plan Set to Go to the FCC, L.A. Times, July 26, 1997, at F1. As I explain below, this system may or may not survive administrative review.
3 Id. There are also other ratings: "TV-Y" (suitable for youngsters), "TV-Y7" (appropriate for children 7 and over), "S" (sex), "L" (language), "V" (violence), and "D" (suggestive dialogue). It is not clear if a program rated TV-Y7 will pass through a V-chip set for TV-PG. It is also unclear if a program rated "S", "L", "V", or "D" will pass through a V-chip set for TV-PG, TV-14, or even TV-M.
4 Add-on boxes will likely retail for around $40. See V-Chip Technology Waits for Washington, Broadcasting & Cable, Dec. 90, 1996, at 8 (reporting that Soundview Technology will sell a "V Chip Converter" for around $40).
and the fare available to children and adults may, in turn, transform.

Reactions to the V-chip have varied from ecstatic\(^5\) to indifferent\(^6\) to outraged.\(^7\) Legal analysis of the V-chip has been uneven.\(^8\) Some of those who like the idea of the V-chip have trouble paying even the most cursory attention to the question of possible constitutional problems,\(^9\) while one commentator who is outraged sees obvious constitutional violations.\(^10\)


\(^10\) See Corn-Revere, Television Violence and the Limits of Voluntarism, supra note 7. Although clearly not outraged by the V-chip, Edwards & Berman analyze the V-chip in a way suggesting that it has constitutional problems. Edwards & Berman, supra note 8, at 1513-15. They state that “[t]he regulation will raise problems only if the government ordains the program characteristics upon which a lockout mechanism could operate, thereby disadvantaging speech by content or subject matter.” Id. As we will see infra notes 15-17 and accompanying text, the Telecommunications Act of 1996 seems to have done just that.
No one has yet provided a thorough analysis of the likely effects of the V-chip on the video market.\textsuperscript{11} Will adding a V-chip decrease, increase, or leave unchanged the amount of sex and violence on television? What information would we need in order to answer this question? A full economic treatment of the V-chip would answer at least some of these questions. And many of the answers are crucial to evaluating the constitutionality of the V-chip. However, to date no one has attempted to provide a full, systematic economic analysis. This paper fills that void.\textsuperscript{12}

This article provides the first economic analysis of the V-chip and the market for television shows. It also provides an introduction to some of the constitutional issues surrounding the V-chip.\textsuperscript{13} Now that the broadcast and cable industries have announced their rating system, enough can be discerned to allow us to sketch out the major issues under the First Amendment. Before we can proceed to the constitutional law and economics of the V-chip, however, we need to explain the statutory background.

Section 551 of the Telecommunications Act of 1996 creates an administrative system for rating and regulating violence and sex on television.\textsuperscript{14} Section 551(e) gives the industry's "distributors of video programming" one year from the date of passage of the Act to:

\footnotesize
\begin{enumerate}
\item Legal analyses of the V-chip are starting to appear. See Scott, supra note 9; J.M. Balkin, \textit{Media Filters, the V-Chip, and the Foundations of Broadcast Regulation}, 45 Duke L.J. 1131 (1996).
\item This paper will not discuss the question of why governmental coercion is needed, rather than relying on the voluntary actions of industry members. The answer may be that there is a coordination game, where no single set of actors wants to proceed unless they are reasonably certain that the rest of the industry will proceed with a rating system. The producers will not bother to rate programs and embed the ratings in the programs, for example, unless the producers are certain that the set manufacturers will install chips that can read and filter on the basis of the ratings.
\item In Hundt, supra note 5, at 1126 (implicitly assuming away the constitutional issue), the chairman of the Federal Communications Commission ("FCC") concludes that there is no constitutional issue worth discussion relating to the V-chip. Accord Krotoszynski, Jr., supra note 6, at 1194. As my discussion below shows, they are almost certainly wrong.
\item Throughout this draft "television" should be understood to include broadcast and cable television, unless the context makes it clear that this is not the case. In addition, I will often use "violence" as a shorthand for violent, sexually explicit, or laced with strong language.
\end{enumerate}
“(A) establish[ ] voluntary rules for rating video programming that contains sexual, violent, or other indecent material about which parents should be informed before it is displayed to children, . . . ; and
(B) agree[ ] voluntarily to broadcast signals that contain ratings of such programming.”15

I will refer to this year-long period as “Stage One.” The “voluntary” rating system implemented during Stage One must be “acceptable to the [Federal Communications] Commission [("FCC")].”16 The FCC is to determine whether an acceptable voluntary rating system has been adopted by the distributors of video programming by consulting with “appropriate public interest groups and interested individuals.”17 At this time we are waiting for the FCC’s decision to approve, or not approve, the industry’s rating system.

If, at the end of a year, the distributors of video programming have failed to adopt an acceptable rating system, the administrative system enters “Stage Two.” During Stage Two the FCC is authorized to create a special advisory committee. The advisory committee is to mirror the polity and the industry,18 and must submit a report to the FCC recommending a ratings system.19 Based on the report and recommendations of the advisory committee, the administrative system enters “Stage Three.” In Stage Three, the FCC must prescribe two different types of regulations. First, the FCC must promulgate “guidelines and recommended procedures” for rating video programming containing “sexual, violent, or other indecent material about which parents should be informed.”20 These regulations will not require anyone to rate programming. Instead, the regulations are only a recommended system for anyone who might choose to rate programs. Second, with respect to any video programming that has been rated, the FCC must promulgate rules “requiring distributors of such video programming to transmit” the rating in a way that would allow the V-chip to block the rated programming. These regulations will require distributors of video programming to transmit the ratings.

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16 Id.
17 Id.
18 The FCC must "ensure that such committee is composed of parents, television broadcasters, television programming producers, cable operators, appropriate public interest groups, and other interested individuals from the private sector and is fairly balanced in terms of political affiliation, the points of view represented." Id. § 551(b)(2)(A).
19 The advisory committee’s report must be submitted within one year of the appointment of the committee’s “initial members.” Id.
20 Id.
To summarize the V-chip administrative system in Stage Three, the FCC’s recommendations for rating video programming \textit{will not be} binding, while the FCC’s rules for transmitting any such ratings \textit{will be} binding. The V-chip administrative system in Stage Three says to the industry “you need not rate, but if you do, you \textit{must} transmit the rating.” The conference report accompanying the Act directly supports this interpretation.

The rules prescribed for transmitting a rating are requirements. In contrast, the guidelines and recommended procedures for a rating system are not rules and do not include requirements. They are intended to provide the industry with a carefully considered and practical system for rating programs if the industry does not develop such a system itself. However, nothing in subsection (b)(1) of section 551 authorizes, and “the conferees do not intend, that the Commission require the adoption of the recommended rating system nor that any particular program be rated.”\textsuperscript{21}

Regardless of what happens with rating television programs, all new television sets with screens at least thirteen inches in diagonal must have a V-chip installed.\textsuperscript{22} Nothing in the Act seems to cover the tuner section in a VCR.

In sum, then, the Act’s plan looks something like the following:

<table>
<thead>
<tr>
<th></th>
<th>Stage One</th>
<th>Stage Two (max one year)</th>
<th>Stage Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratings:</td>
<td>Voluntary</td>
<td>Advisory Committee Report</td>
<td>FCC “Guidelines”</td>
</tr>
<tr>
<td>Transmission:</td>
<td>Voluntary</td>
<td>Nothing</td>
<td>FCC Rules Require</td>
</tr>
<tr>
<td>Chip:</td>
<td>Must Be Installed</td>
<td>Must Be Installed</td>
<td>Must Be Installed</td>
</tr>
</tbody>
</table>

Does such a plan violate the First Amendment to the Constitution? To answer this question I will analyze the question under alternative assumptions. First, I will assume that the ratings system is done in Stage One and resembles the one already proposed by the industry. Second, I will assume that Stage One fails and that the FCC must promulgate recommendations and rules in Stage Three.

In part I of this article I will first outline the “state action” doctrine—the rules that govern when “private behavior” will be treated as if it were behavior of the state and hence subject to the require-


\textsuperscript{22} Actually, the TV must “be equipped with a feature designed to enable viewers to block display of all programs with a common rating.” Telecommunications Act of 1996 § 551(c).
ments of the First Amendment. I will then apply the state action rules to the V-chip ratings system adopted in Stage One. Part I concludes that the industry's decision to adopt a V-chip ratings system in Stage One will be treated as state action and hence will be subject to scrutiny under the First Amendment. The form of the system, however, may well be regarded as private behavior. In part II, I conduct a similar analysis, but focus on a V-chip ratings system adopted in Stage Three. I conclude that the V-chip rating system will be subject to the First Amendment if the system is adopted in Stage Three. Part III of this article concludes that the Court will likely find the V-chip system constitutional under substantive First Amendment analysis. The reasons for my conclusion will differ depending on the precise nature of the First Amendment claim. A producer claiming that the entire V-chip system produces a chilling effect will fail, at this point, to demonstrate the chill.\footnote{This assumes that the producer bears the burden of proof. See infra discussion at note 115 and accompanying text.} A producer complaining about his individual rating will fail, possibly because of special state action problems, and possibly because of the justifications for the ratings system.

I. The State Action Requirement in Stage One: "Voluntary" Ratings

Under this alternative (Stage One) I will analyze the system already adopted by the broadcast and cable industry, including the studios. Television programs will be rated in a hierarchy: "TV-G" (for all ages), "TV-PG" (parental guidance suggested), "TV-14" (may be inappropriate for children under 14), and "TV-M" (for adults).\footnote{See Hall & Lowry, supra note 2. There are also other ratings: "TV-Y" (suitable for youngsters), "TV-Y7" (appropriate for children 7 and over), "S" (sex), "L" (language), "V" (violence), and "D" (suggestive dialogue). Jane Hall, Ratings Plan Set to Go to the FCC, L.A. Times, July 26, 1997, at F1. It is not clear if a program rated TV-Y7 will pass through a V-chip set for TV-PG.} Considerations of violence, sex, and language will be collapsed into one variable, coded for age-appropriateness. All of the major broadcast and cable networks will encode a program's ratings and transmit them with the program to the viewer. If, for example, the viewer sets a V-chip for TV-PG, then no program with a rating of TV-14 or TV-M will appear on that viewer's set.

Let us assume that someone, either a program producer or a viewer's group, objects to the V-chip plan as a violation of the First Amendment. Further, assume that such a person or group has standing to bring the objection before a federal court.\footnote{The Supreme Court has held that a film distributor had standing to object to the}
and most important defense that such a litigant will face is termed the "state action" requirement.

The First Amendment begins "Congress shall make no law." As a consequence, the First Amendment restricts only the actions of the government, and does not restrain private behavior.26 When a private party restrains another private party's speech, the First Amendment provides no impediment to the practice. In fact, under certain circumstances, such as when an editor of a newspaper chooses not to print certain content, the First Amendment protects the private party's right to "restrict" the speech of another private party.27 The need to find government action before the First Amendment controls the case is called the "state action" requirement.

As applied to this situation, the government and (presumably) the distributors of video programming will claim that the ratings and the transmission of the ratings within the shows result only from private, not government, action.28 After all, they will say, the ratings are being done by program producers, studios, or video distributors, all of whom are private actors. The decision to rate a television program for violence and sex, like a newspaper editor's decision to print an article, is not constrained by the First Amendment and cannot be challenged on that constitutional basis in court. As a consequence, they will argue, we need not even discuss First Amendment doctrine or policy. The case ends before it begins.

How should we evaluate this claim by the government? To provide a sophisticated and nuanced evaluation, we must first learn a little bit of doctrinal and theoretical background about the state action doctrine, and then apply this to the V-chip rating facts.

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28 See Don West & Christopher Stern, Jack of All Trades: The Man in the Middle on the V-Chip, Broadcasting & Cable, Mar. 18, 1996, at 26, 29 (Jack Valenti, who is spearheading the industry's effort to rate programming, says "I'm just saying to you, what we're doing is voluntary. The law does not command us to do it."). This is logically consistent with Valenti's earlier pronouncement about controlling violence on television. Three years earlier Valenti wrote that what "should chill the blood of every citizen is the heavy hand of government slowly, steadily, remorselessly intruding into the outer perimeter of the First Amendment." Jack Valenti, Whose Children Are They, Anyway?, L.A. Times, Oct. 4, 1993, at B7.
A. Background on the State Action Doctrine

The state action doctrine applies to more than just the First Amendment. Most of the Constitution's protections for individual rights apply only to the state.\textsuperscript{29} Constitutional guarantees of freedom from racial discrimination,\textsuperscript{30} the right to be represented by counsel at a criminal trial,\textsuperscript{31} freedom from unlawful search and seizure,\textsuperscript{32} and the right to a fair procedure before important rights are taken away,\textsuperscript{33} only apply to state action. If private individuals discriminate on racial grounds, interfere with the right to counsel, unlawfully search or seize evidence, or refuse to give someone a fair procedure, the Constitution is not violated. The aggrieved parties must look to some other source of law, such as the 1964 Civil Rights Act,\textsuperscript{34} for protection.

The state action doctrine attempts to draw the line between private action—which is unconstrained by most constitutional guarantees—and state action—which must comply with the requirements of the Constitution.\textsuperscript{35} Most of the Supreme Court's cases finding state action involved racial discrimination.\textsuperscript{36} Because the V-chip raises no racial discrimination issue I will concentrate on precedents without this factor.

1. Cases Without Racial Discrimination Issues

In the absence of a racial discrimination issue, the Supreme Court is most willing to find state action when either of two different theories applies. First, if a private party performs a function that has traditionally and exclusively been a government function, then the Court is more likely to find state action.\textsuperscript{37} Second, if the

\textsuperscript{30} See Virginia v. Rives, 100 U.S. 313 (1879); The Civil Rights Cases, 109 U.S. 3 (1883); see also C. Vann Woodward, Reunion and Reaction: The Compromise of 1877 and the End of Reconstruction (1966).
\textsuperscript{31} See Polk County v. Dodson, 454 U.S. 312 (1981).
\textsuperscript{35} See Charles L. Black, Jr., Foreword: "State Action," Equal Protection, and California's Proposition 14, 81 Harv. L. Rev. 69, 95 (1967); Edmondson v. Leesville Concrete Co., 500 U.S. 614, 632 (1991) ("cases deciding when private action might be deemed that of the state have not been a model of consistency").
\textsuperscript{36} E.g., Reitman v. Mulkey, 387 U.S. 369 (1967) (finding state action in an amendment to the California Constitution guaranteeing private landlords the right to refuse to rent property for any reason, including racial prejudice); Shelly v. Kramer, 334 U.S. 1 (1948) (finding state action in judicial enforcement of racially restrictive land covenants).
\textsuperscript{37} Most of the cases finding a government function basis for state action involved racial discrimination. This continues the general theme noted in the sections above. For example, Texas attempted to delegate the business of elections to a private political party, which
government has become entangled in private conduct by providing strong incentives or encouragement for private individuals to behave in some way, then the private parties’ behavior may be deemed “state action.” Because the V-chip raises only the government entanglement issue, I will not discuss the government function theory.

The government entanglement “theory” asks whether the government has so involved itself, either by providing incentives, encouragement, or resources, with private behavior, that the actions of a private party must be deemed that of the state.\(^5^8\)

The Court is often unwilling to find state action in cases involving no racial discrimination, although sometimes the Court does so.\(^5^9\) Most important for purposes of this paper, the Court appears to have established that granting a license to a private party does not turn the private party’s actions into state actions.\(^4^0\)

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\(^5^8\) As with the government function theory, described in the paragraph above, the archetypal cases finding state action tend to be at least two decades old, and frequently involve racial discrimination. The most famous case in this area is *Shelley*, 334 U.S. 1, in which the Supreme Court held that a court enforcing a racially restrictive covenant in a land sale constituted state action. Prior to the decision in *Shelley* many residential properties were burdened by promises not to sell the properties to black people. These promises, which were made as part of previous sales of residential property between private parties, were supposed to “run with the land” and be enforceable against any subsequent purchaser. Hence, if a private owner of land burdened by a racially restrictive covenant attempted to sell the land to a black purchaser, a neighbor could sue the seller and have the attempted sale voided. The Supreme Court ruled that the court’s enforcement of these covenants would constitute state action, and hence be unconstitutional. Cases involving the racially-restrictive use of pre-emptory challenges have also found state action. See *Baton v. Kentucky*, 476 U.S. 79 (1986); *Edmonson v. Georgia*, 500 U.S. 614 (1991); *McCollum v. Georgia*, 505 U.S. 42, 50 (1992). Subsequent cases involving racial discrimination and which seem to raise the state action question have frequently found the Court ducking the issue. See *Bell v. Maryland*, 378 U.S. 226 (1964) (Justices Douglas and Black debating the issue, while the rest of the Court ducked the issue); *Lombard v. Louisiana*, 373 U.S. 267 (1963) (overturning trespass convictions of civil rights protestors, but ducking the *Shelley* issue); *Peterson v. Greenville*, 378 U.S. 244 (1966).

\(^5^9\) *Compare*, e.g., *Flagg Bros. Inc.*, 436 U.S. 149 (refusing to find state action in a private creditor’s use of a self-help repossessio n statute, despite the sheriff’s involvement for storage of goods at a warehouse), *with* *Lugar v. Edmondson Oil Co.*, 457 U.S. 922 (1982) (finding state action when creditor obtained a writ of prejudgment attachment from a court).

\(^4^0\) See *Moose Lodge Number 107 v. Irvis*, 407 U.S. 163 (1972) (refusing to find that a liquor license turned the Moose Lodge’s actions into state action, despite the Lodge’s explicit racial discrimination); *CBS v. Democratic Nat’l Comm.*, 412 U.S. 94 (1973) (Three justices refused to find that a broadcasting license turned a broadcaster’s refusal to accept
Likewise, state subsidies to private actors do not to trigger state action.\footnote{When racial discrimination is present, the Court tends to find state action. \textit{See}, e.g., \textit{Norwood v. Harrison}, 413 U.S. 455 (1973) (free textbooks given to all schools, including racially segregated schools, constituted state action); \textit{Gilmore v. City of Montgomery, Ala.}, 417 U.S. 556 (1974) (giving exclusive use of city-owned recreational facilities to segregated private schools created state action).} For example, in \textit{Rendell-Baker v. Kohn},\footnote{\textit{Id.} at 841.} a school that received over ninety percent of its income from the state fired a teacher because she had been critical of the school’s administration. The Supreme Court refused to find state action, stating that the firing was not “compelled or even influenced by any state regulation.”\footnote{\textit{See Writers Guild of America, West v. FCC}, 423 F. Supp. 1064 (C.D. Cal. 1976), \textit{vacated and remanded on jurisdictional grounds sub nom. Writers Guild of America, West v. ABC}, 609 F.2d 355 (9th Cir. 1979).} In \textit{Blum v. Yaretsky},\footnote{\textit{497 F.2d 302} (1982).} government Medicaid funding rules essentially required the transfer of hospital patients to less well-equipped care facilities under certain circumstances. Despite the fact that Medicaid provided over ninety percent of the funds for the patients, the decision to transfer remained, according to the Court, a private one.

2. Broadcasting and Cable Cases


Cable television operators control the content on almost all of the channels on the cable system. On a few channels—termed “access” channels—the cable operator may not control the content. Leased access channels are those that have been set aside, pursuant...
to requirements in the Cable Act of 1984, for lease by commercial entities not affiliated with the cable operator. Public, educational, and governmental ("PEG") access channels are those that are set aside, pursuant to contract with the local municipality, for use by members of the public, educational institutions, or governmental bodies. In the 1992 Cable Act\(^4^{9}\) Congress changed the rules for leased access and PEG access channels on cable television systems. Under section 10(a) of the 1992 Cable Act, a cable operator gained authority to refuse to carry indecent programming on leased access channels.\(^5^{0}\) If a cable operator decided to carry indecent programming on leased access, it had to put the indecent programming on a single channel, block the channel from cable subscribers, and only unblock the channel in response to a written request from a particular subscriber.\(^5^{1}\) Section 10(c) of the 1992 Cable Act required the FCC to allow cable operators to prohibit "any programming which contains obscene material, sexually explicit conduct, or material soliciting or promoting unlawful conduct."\(^5^{2}\) Section 10(d) removes the cable operators' previously granted immunity from criminal liability for carrying obscenity on access channels.

The Supreme Court issued three opinions in *Denver Area*. Justice Breyer, writing for Justices Stevens, O'Connor, and Souter,


\(^{50}\)Id. § 10. Children's Protection From Indecent Programming on Leased Access Channels

(a) Authority to Enforce.—Section 612(h) of the Communications Act of 1934 (47 U.S.C. 532(h)) is amended—...

(2) by adding at the end thereof the following: "This subsection shall permit a cable operator to enforce prospectively a written and published policy of prohibiting programming that the cable operator reasonably believes describes or depicts sexual or excretory activities or organs in a patently offensive manner as measured by contemporary community standards."

\(^{51}\) Id. § 10.

(b) Commission Regulations—Section 612 of the Communications Act of 1934 (47 U.S.C. 532) is amended by inserting the following new subsection:...

(j)(1) Within 120 days following the date of the enactment of this subsection, the Commission shall promulgate regulations designed to limit the access of children to indecent programming, as defined by Commission regulations, and which cable operators have not voluntarily prohibited under subsection (h) (§ 10(a)) by—

(A) requiring cable operators to place on a single channel all indecent programs, as identified by program providers, intended for carriage on channels designated for commercial use under this section;

(B) requiring cable operators to block such single channel unless the subscriber requests access to such channel in writing; and

(C) requiring programmers to inform cable operators if the program would be indecent as defined by Commission regulations.

\(^{52}\) Id. § 10(c).
seemed to find state action in sections 10(a) and 10(c). The conclusion is only slightly uncertain because Justice Breyer first stated the issue rather clearly and then, without explicitly answering the state action question, proceeded to a lengthy discussion of the substantive First Amendment claims. The substantive discussion would have been quite irrelevant unless Justice Breyer had implicitly found that a cable operator's decision to refuse to carry indecency would have been state action.

Justice Kennedy, writing with Justice Ginsburg, explicitly found state action as to both sections 10(a) and 10(c).

The plurality at least recognizes this as state action . . . avoiding the mistake made by the Court of Appeals . . . . State action lies in the enactment of a statute altering legal relations between persons, including the selective withdrawal from one group of legal protections against private acts, regardless of whether the private acts are attributable to the State.

Justice Thomas, writing for Chief Justice Rehnquist and Justice Scalia, did not confront the state action issue. Instead, he asked to what extent the First Amendment protects cable operators, programmers, and viewers from state action. Justice Thomas argued that all of the speech rights start with the cable operator, and that access channels represent a (constitutionally questionable) infringement of cable operators' rights. Creating the access channels does not, consequently, create any First Amendment interests in programmers or viewers. Hence, they cannot object to the regulations. Only cable operators may object.

B. Application of State Action to V-Chip Ratings in Stage One

The drafting of both the present ratings and brawner new system was as voluntary as facing a firing squad. Both came in response to withering pressure from TV reformers and especially, the federal government, with some vote-driven, opportunistic members of Congress joining true believers in embracing an issue they felt would resonate like a thunderbolt—not only with much of the public but with the media. The industry's

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53 Justice Breyer wrote, "[w]e recognize that the First Amendment, the terms of which apply to governmental action, ordinarily does not itself throw into constitutional doubt the decisions of private citizens to permit, or to restrict, speech . . . ." Denver Area Educ. Telecomms. Consortium, 116 S. Ct. at 2383. He then outlined the petitioners' arguments for finding state action under these circumstances and proceeded directly to the substantive arguments. Id. at 2383-84.

54 Id. at 2404-05.
55 Id. at 2409-12.
choice: with or without the blindfold.\footnote{56}

To apply the state action doctrine to the V-chip we must make a distinction. The plaintiff producer’s claim might be that the existence of any ratings system, in and of itself, chills speech and stifles the marketplace of ideas. If this is the claim, then the issue is whether there is state action in bringing the ratings system into existence. The plaintiff producer’s claim might, however, be more specific. The producer might object to a ratings system that is both age-based and content-based, rather than just age-based.\footnote{57} In that case, the producer would object to the form of the rating system adopted by the industry. Last, the producer might object to the rating that was given to one of his shows. The producer’s show might have been given a TV-M, but the producer thinks that the show deserves only a TV-G. In this case, the question will be whether there is state action in the assignment of a particular rating to a show. The three different types of producer claims may get different answers to the question of state action.

There are several possible arguments as to why the “voluntary” ratings and transmission scheme is actually government action. All of these arguments refer to the “excessive entanglement” branch of the state action doctrine.

1. Political Economy and the “Free” Digital Channel for Broadcasters

One change facing broadcasting in the near future is that broadcasters will have to give up the six megahertz of spectrum that they are now using for analog broadcasting. New digital broadcasting channels, also most likely six megahertz, will be allocated for digital broadcast transmissions. These new licenses will give the broadcasters the flexibility to deliver one high definition picture with six channel sound, or to deliver several lower quality signals.

Existing broadcasters want the federal government to give each of them a six megahertz “digital” license (for free) and allow the broadcasters to keep the existing analog licenses for as long a period as possible before surrendering the analog licenses to the FCC.\footnote{58} Many in the House and Senate, including former Senator

\footnote{56} Howard Rosenberg, Holdout by NBC to Provide Real Test, L.A. TIMES, July 30, 1997, at Fl.
\footnote{57} A content-based ratings system gives information about the amount of sexual, violent, or other types of content in the program. See infra note 86 and accompanying text.
Dole, have suggested auctioning off the new digital licenses to the highest bidders. The public treasury, rather than existing broadcasters, would reap the benefits from the new spectrum. Such a prospect has terrified existing broadcasters, and has compelled them to give Congress whatever is wanted. What is wanted, in short, is a "voluntary" rating system.

This trade of "free" spectrum for good behavior in restraining broadcast violence has occasionally reached the level of explicit public musings by FCC officials or Congressmen. These public musings almost always take the form of a veiled threat. The broadcasters' good behavior is described as a "quid pro quo" or part of a "social compact" for free spectrum. The argument is that the carrot of a "free" digital channel, combined with the stick of surrendering the analog channel, has overwhelmed the broadcasters' free will regarding ratings. As a consequence, the "voluntary" ratings system is actually government action.

The description is absolutely correct as a matter of political economy, and it might also serve to establish state action, at least as to the industry's agreeing to create and implement a ratings system. Note that none of these carrots or sticks have been offered in exchange for rating any particular show in any way. Hence, the political economy argument will not help an individual producer who is objecting to the way in which his program was raised to establish state action in the individual exercise of discretion. Rather, the political


pressure has been directed at getting a ratings system. Hence, this may help establish state action for a plaintiff whose theory objects to the existence of the ratings process.

There has been at least one case holding that official threats and links between broadcast violence and licenses constitutes state action. On the other hand, there has been no explicit statutory or administrative link between the two issues. It remains perfectly possible for the broadcasters to gain the free channel without instituting a ratings system. Hence, the Supreme Court may be more likely to view the digital channel as political background, but not legal entanglement or coercion.

2. Requiring the Chip in the Set

The next argument focuses on the undisputed state action of requiring that the V-chip be installed in the set. This is more, goes the argument, than just requiring an “on/off” switch be installed in television sets. The only purpose of a V-chip is to facilitate a ratings and screening system. By regulating one part of the ratings and screening system, the government has so injected itself into the process as to constitute excessive encouragement in the entire enterprise. Requiring the chip may also put the government’s imprimatur on whatever system evolves.

This argument, standing by itself, is weak. A Court that is loathe to find government action where Medicare rules virtually coerce the transfer of an elderly patient is also unlikely to find government action, based solely on requiring the chip, when program producers decide to implement a ratings scheme. However, in combination with other factors, this argument may gain importance. After all, the producers’ and networks’ decision to implement a ratings scheme can only come after mandatory installation of V-chips in the sets. Hence, we have clear state action in the first step in implementing a ratings system. What is more, this argument would seem to work equally well for a plaintiff objecting to either an individual instance of rating a program, or for one objecting to the entire ratings system. However, to complete the state action argument we must rely on other considerations, such as the political economy argument discussed immediately above, or the other concerns to which we turn in the sections below.

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63 See Writers Guild of America, West, 423 F. Supp. 1064. But see CBS, 412 U.S. 94 (a plurality refusing to find state action in the bare licensing of television broadcasters).

64 I am presuming that absent regulation the V-chip would not have been installed.
3. Governmental "Approval"

The government might have become so involved in the process that its approval and encouragement for ratings have stepped over the line into impermissible entanglement. I believe that this argument has considerable power with regard to the industry's decision to adopt a ratings system. Recent events have extended this argument's force to the type of ratings system adopted.

The federal government has pressured the industry to adopt a ratings system. Consider the meeting between President Bill Clinton and leaders of the broadcast and cable industry\(^{65}\) at the White House. President Clinton called the industry leaders to the White House, asked for a commitment to implement a "voluntary" ratings system, and got it on the spot. In addition, President Clinton, while trying to verbally distance himself from the process, has indicated that he intends to stay involved:

Q (Los Angeles Times): What kind of a role do you foresee for yourself, for the White House, in monitoring the implementation of this system and making sure it's done right?

A (President Clinton): Well, the first thing I think is that the government should not be involved in the process by which the system is developed and then implemented. Just like we're not involved in the movie ratings. I don't believe we should be involved.

I think the industry, if you look at the movie ratings or even if you look at the advisories that we see now on television before certain programs, I think its clear that once the industry decides to do this and hold itself publicly accountable, that there's a very high probability that a good job will be done on this.

What I think I can do is to, first of all, receive the results of their efforts since they sort of kicked it off here. If they'd like to come back, I invited them to come back and make a report to

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\(^{65}\) The list of 30 included Ted Turner (TBS), Rupert Murdoch (Fox), Barry Diller (Silver King), Michael Ovitz (Disney), Frank Mancuso (MGM), Kay Koplovitz (USA Network), Alan Levine (Sony), Bob Wright (NBC), Michael Jordan (Westinghouse), Richard Masur (Actor's Guild), Eddie Fritts (NAB), Peter Lund (CBS), Jack Valenti (MPAA), Judith McHale (Discovery), Ray Rodriguez (Univision), Gene Reynolds (Director's Guild), Brian Roberts (Comcast), Ron Meyer (MCA), Bob Iger (Cap Cities/ABC), Lucy Salhany (United Paramount), Rich Frank (C-3), Ervin Duggan (PBS), Haim Saban (Saban Entertainment), Brad Radnitz (President, Writers Guild of America, West), Terry Semel (Chairman/co-CEO, Warner Bros., Warner Music Group), Robert A. Daly (Chairman/co-CEO, Warner Bros., Warner Music Group), Jeffrey Katzenberg (Founder, Dreamworks SKG), Jonathan L. Dolgen (Chairman, Viacom), Robert L. Johnson (President/CEO, Black Entertainment Television), and Decker Anstrom (President NCTA). See The Elegant Surrender: Industry Capitulates on V-Chip Without Firing a Shot, Broadcasting & Cable, Mar. 4, 1996; John M. Broder & Jane Hall, President Heats TV Executives Commit to Ratings System, L.A. Times, Mar. 1, 1996, at A1.
me and to bring in the members of Congress, and I’m trying to keep this in a very nonpolitical way.

So one of the things we might be able to do is to highlight the work once its done, to emphasize it, and then to make sure that we do everything we can to explain to people how the V-chip works and how they should access it as they buy new televisions. And for those who do not have the V-chip—and for several years there will be millions of Americans who won’t have it—to encourage them still to become familiar with the rating system and to use it at home anyway.

“Q (LOS ANGELES TIMES): Is there a place for jawboning or exhortation about overall quality in programming?

A (PRESIDENT CLINTON): Well, I think that’s the next follow-up.”

In addition, one could also consider governmental involvement left over from implementation of the Television Violence Act. When the networks were slow to implement a standard, Senator Paul Simon told the industry that if it failed to reduce violence within the following sixty days, congressional action would follow.

In a recent televised meeting between Senator Joseph Lieberman (D-Conn.) and Representative Edward Markey (D-Mass.) and Hollywood producers Steven Bochco (NYPD Blue), John Wells (ER), Marta Kaufman (Friends), and others, the discussion of the V-chip boiled over into threats. Producer Lionel Chetwynd attacked the politicians by saying “It’s all a charade. They’ve made Hollywood a target of opposition in a political season. . . . Never before in the history of the republic has the coercive power of the state been enlisted to control or in any way limit the [First] Amendment.” In response, Senator Lieberman said “I find these comments to be dispiriting. . . . Folks, if you keep on down this road in a state of denial, there’s a group of folks behind me and [Representative] Markey that don’t have the same concern for the [First] Amendment that we do.”

As to the type of ratings system actually adopted, two factors push toward finding state action. First, consider the requirement

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70 Id. at F25. Jack Valenti, who is in charge of putting together the rating system, reported “I’m not worried about those people in back of you, because we will be in federal court in a nanosecond if there is any attempt by lawmakers to impose censorship.” Id.
that the FCC find the voluntary ratings system acceptable, or else the process proceeds to Stage Two.\footnote{The FCC must also approve the technology that will be used in the V-chip itself. This gives another added measure of control. See V-Chip Technology Waits for Washington, supra note 4.} This appears to border on the government adopting the private system as its own, indicating that there is state action. Second, government pressure has helped shape the ratings system. When the industry first attempted to adopt a pure age-based system, (TV-Y, TG-G, etc.), the choice seemed to be private. Prior to the industry’s preliminary choice of the age-based ratings system, interest groups and politicians pressured the industry to adopt a content-based system. A content-based system would give the information about the level of sex, violence, and strong language in a program, and permit the viewer to filter based on those factors. Academics,\footnote{Prof. Joel Federman, Co-director of the Center for Communication and Social Policy at the University of California at Santa Barbara, argued:}

The industry has pledged that its ratings will be useful to parents, helping them to block unwanted shows using the much-heralded V-chip. But a recent national survey of parents sponsored by the PTA and conducted by University of Wisconsin researchers found that 80% of parents would prefer a system that identifies programs by content rather than the age group for which the programming is appropriate. Parents surveyed said the HBO rating system, which specifies the type and level of sex, violence and language, is significantly more helpful to them and more objective than the MPAA ratings.

Joel Federman, Let’s Pave a High Road for TV Ratings System, L.A. TIMES, Dec. 9, 1996, at F3.\footnote{But the aggressive strategy chosen by MPAA Chairman Jack Valenti and other entertainment executives could set the stage for a political showdown with a spectrum of critics, from the conservative Traditional Values Coalition to the liberal Center for Media Education, which want information made public in advance about the level of sex, violence and bad language on individual shows.}

Jube Shiver, Jr., TV Industry to Use Ratings Before Regulatory Review, L.A. TIMES, Dec. 19, 1996, at A1.\footnote{[S]ome children’s television advocates and members of Congress . . . strongly favor a content-based TV rating system that would give parents more specific—information about the sex, violence or foul language found in every entertainment program.}

“Parents have reviewed Hollywood’s age-based system and given it two thumbs down,” said Rep. Edward J. Markey (D-Mass.). “Now is the time for their voices to be heard.”

Markey, one of several members of Congress who have spoken out against the industry’s design, said he has requested a meeting with the president to try to change his mind.

“We should not spend 10 months trying out a system that child psychologists, pediatricians, religious leaders and educators agree is seriously flawed,” Markey said.

Earlier this week the battle between the two sides reached a boiling point. Sen. Joseph I. Lieberman (D-Conn.) threatened to introduce legislation requiring a content-based system. But Valenti, the chief architect of the industry’s proposal, countered that he would file a [First] Amendment lawsuit to keep the government from intervening, which would likely stall the introduction of the system.
dent Al Gore met with representatives from several interest groups that wanted President Clinton to intervene in the process. The industry, however, coalesced around an age-based ratings system and then at first refused to give in to pressure.

Relentless political from Senator John McCain (R-Ariz.), Representative Ed Markey (D-Mass.), and Vice President Al Gore ensued. After key industry executives were given “assurances from key members of Congress of a moratorium of several years on legislation to modify the system still further,” the industry (except for NBC) caved in and agreed to add “V”, “S”, “L”, and “D”. This whole scenario—industry resistance, intense political pressure, and capitulation, suggests state action in the type of ratings system. Through Jack Valenti, the Chairman of the industry ratings committee, the industry has been moderately pugnacious:

Referring to Rep. Edward J. Markey (D-Mass.), who joined [Senator] Lieberman in strongly criticizing the TV industry’s system Thursday, Valenti said, “Ed Markey wants the government to be Big Brother... and have us do what he wants to do. If Congressman Markey leads the troops on the White House floor to pass any legislation that we believe torments the 1st Amendment, we’ll see him in court.”

Valenti also dismissed suggestions from industry critics that the Federal Communications Commission, which must give its approval to the ratings system, could reject the industry’s plan and impose one of its own.

“If the FCC says that what we present is unsuitable, we’re under no obligation to use any other design,” he said. “We will not use any other TV ratings guidelines except the ones that we are going to announce next week.”

The combination of these factors provide a reasonably strong argument for finding state action, at least as to the creation of the

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75 The Vice President apparently told them to take their fight to the FCC.

“The Vice President assured us that the White House neither endorses nor condemns the TV ratings system, said Kathryn Montgomery, president of the Center for Media Education, a Washington communications advocacy group. But, she said, ‘there will be an open process at the FCC for debate and comment on this issue.’”

Shiver, Jr., supra note 73.

76 A ratings “committee member acknowledged that an alternative to the MPAA-based system was never seriously considered.”

“This was the only system the whole TV industry would agree to,’ the committee member said.” Hall & Lowry, supra note 2.


ratings system. The involvement of President Clinton, the required approval of the ratings system by the FCC, and threats by Lieberman and Markey provide a reasonably strong case that the intensity of government involvement has passed the point where the ratings can be thought of as private, voluntary behavior. Telling the President "No" after you have been summoned to the White House, particularly if you are a firm in a partially regulated industry, requires great courage. Continuing to resist when members of Congress are issuing veiled threats and the FCC must approve your ratings system is, in short, too much to expect. In sum, the total level of involvement by the government is so great that the industry's behavior should be viewed, in part, as government behavior.79

Similar factors suggest state action in the type of ratings system that has been chosen. The industry's initial resistance to pressure and choice of a purely age-based system, followed by intense political pressure and the industry's agreement to content-based ratings, indicates state action. When one adds the need for subsequent FCC approval, the facts suggest that the industry's age-based system should be viewed as state action, and not as a private, independent choice.80

4. Ratings vs. Transmission of Ratings

To the extent that the Court is willing to consider the transmission of ratings apart from the ratings system, it is more likely that the voluntary transmission of ratings will be regarded as state action. This conclusion follows from the requirement in Stage Three that any ratings must be transmitted. If program distributors refuse to "voluntarily" transmit the ratings in Stage One, they will be

79 The response, I suppose, is to focus on the lack of explicit coercion. President Clinton was only making a request, not giving an order. The background legislation does not require ratings. And Lieberman and Markey were only pointing out that other Members of Congress would not be as friendly as they are. Hence, the decision to rate programs remains private.

This response fails. It does not address the level of government involvement. The Clinton administration and Congress have been deeply and forcefully involved in the V-chip issue. The administration's extremely active involvement in shaping the content of children's television on closely related issues, such as educational television, underscores how seriously broadcasters must regard the administration's pressure. The White House recently brokered a deal for the FCC to require three hours per week of educational programming for children. Again, meetings were held at the White House. See Sheryl Stolberg & Jane Hall, Educational Children's TV Shows to Air, L.A. TIMES, July 30, 1996, at A12. The industry's adoption of a V-chip ratings system should, in short, likely be regarded as state action.

80 Congress has also pressured broadcasters to reinstate the "family hour"—child-friendly programming during the first hour of prime time. In May "100 members of Congress signed an open letter to the presidents of six broadcast networks, asking them to bring back the family hour . . . as a 'voluntary covenant with the viewing public.'" Aaron Barnhart, Networks to Dance Again with 'Family Hour,' KAN. CITY STAR, July 20, 1997, at J1.
forced to transmit in Stage Three. Hence, the form of the regulation is "volunteer to do X now, or in a year we will force you to do X." As a consequence, there is no real private choice.

There are at least two possible responses. The first response is that the decision to transmit the ratings during Stage One is still voluntary. The law does not impose any penalty for failing to transmit the rating during Stage One. Once we reach Stage Three transmission will be required by the law, and then there will be state action. The second response is that under the Act the distributor will only be required to transmit ratings in Stage Three if the program producers have adopted a ratings system. If not, there will be nothing to transmit. Hence, the actual form of the regulation is "volunteer to do X now, or in a year we might force you to do X." This is not sufficient encouragement or coercion to constitute state action.

C. Putting All of the Stage One State Action Arguments Together

When one combines the effect of the various arguments—requiring the chip in the set, requiring the transmission of ratings in Stage Three, the carrot of 6 megahertz of "free spectrum," pressure from President Clinton, threats from congressmen, and the requirement of FCC approval of a "voluntary" system—it is hard to conclude that the system is voluntary. In the absence of these factors, no V-chip rating system would likely be created, and virtually all of these pressures have been brought to bear for the purpose of pushing the industry to adopt a ratings system. In other words, I suggest that the Court should find state action present in the creation of a Stage One V-chip rating system. State action extends to the type of ratings system—mixes age-based and content-based—finally adopted.

This does not imply that the court should (or would) find state action in the decision to impose any particular rating on a particular program. Government actors have not (to my knowledge) been trying to get any particular show rated in a particular way. Blum v. Yaretsky would seem to be the natural comparison. In Blum, the government clearly created the reimbursement system that created the entirely foreseeable consequence of transferring patients to facilities with fewer capabilities. However, no particular decision to transfer was made by the government, and the Court

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81 Accord Corn-Revere, What, Me Worry?, supra note 7; Corn-Revere, Television Violence and the Limits of Voluntarism, supra note 7.
82 697 F.2d 302.
declined to find state action in a particular transfer. Here, the government may be free to argue that although the rating system was produced by state action, the operation of the rating system as to individual cases is still private action. The V-chip ratings system could apply any rating to any particular show without government involvement.

II. STATE ACTION IN STAGE THREE: THE FCC'S "SUGGESTED" RATING SYSTEM

The existence of state action in Stage Three, or not, will depend in part on the continued behavior of President Clinton and other powerful politicians.83 Let us assume that the "voluntary" system from Stage One fails, political involvement decreases, the FCC forms an advisory committee, and then the committee submits a report within one year. Next, assume that the FCC issues two different types of directives. With respect to ratings, the FCC promulgates "guidelines and recommended procedures." With respect to transmission, the FCC requires that the ratings be transmitted when the ratings have been implemented. Under these assumptions, what are the arguments for state action (different from the arguments elucidated above)?84

A. Requiring Transmission

If a ratings plan has been adopted by the studios and networks,85 then the transmission of those ratings would be required. This would almost certainly qualify as sufficient compulsion to turn the networks' actions (regarding transmission) into state action.

83 See supra notes 74 & 80.
84 Note that my assumption about decreasing involvement by politicians suggests that the general entanglement theory will be much weaker here.
85 This is probably the only circumstance under which a complaining program producer or viewer could get standing in Stage Three. On the requirement of injury in standing, see Director, OWCP v. Perini, 459 U.S. 297 (1983) (holding that the presence of an injured employee as respondent allowed the petitioner, the Director of the Office of Worker's Compensation Program, to have standing to argue the merits of the case because the respondent's presence assured that the court would be reviewing a case with an actual injury redressable by the court); Sierra Club v. Morton, 405 U.S. 727 (1972) (holding that the "injury in fact" test for standing to sue under the Administrative Procedure Act requires more than injury to a cognizable interest and requires that the party seeking review be himself among the injured); Enos v. Marsh, 769 F.2d 1363 (1985) (holding that plaintiff lacked standing to bring a claim for relief under the Administrative Procedure Act since plaintiff had presented no fact showing that actual injury would occur if the Army Corp. of Engineers were to use a lower discount rate in cost-benefit computations for a harbor project); Zoslaw v. MCA Distrib. Corp., 594 F. Supp. 1022 (1984) (finding that former operators of a retail record store could have standing to complain of another record retailer's alleged favorable treatment from record distributors who violated price discrimination provisions of the Robinson-Patman Act only if the two record retailers were competitors in the same market).
Note that this will probably suffice to establish "state action" for different sorts of complaints. A producer complaining of the "chill" from the entire ratings system will be able to show that all of the ratings under the system must be transmitted. And a producer complaining about the rating his show was given by a review board may show that the law requires that the producer's show's rating be transmitted.

B. The FCC's "Suggested" Rating System

Perhaps the act of constituting an advisory committee, taking its report, and promulgating "guidelines and recommended procedures" so involves the government that private action becomes public. This involves the government in the ratings system far more than just finding the "voluntary" system in Stage One "acceptable." (Clearly that did not happen here, for if it had we would not have gotten to Stage Three.) When combined with the admitted requirements of installing V-chips and transmitting ratings, the entire system might constitute government action.

I will spend little time evaluating this argument because the courts will likely find state action in the requirement of transmission, and the substantive First Amendment analysis of requiring transmission will also require an analysis of the rating system. To see this, just try to answer the question "why require transmission"? without referring to the arguments for and against the substance of the ratings that are being transmitted. I contend that this cannot be done. For example, assume that the FCC's suggested system rated only stories involving explicit descriptions of intercourse as appropriate for all ages, and attached ratings to shows based on this idea. Programs with explicit descriptions of intercourse would be rated "family fare," while programs lacking such material would be given "adults only" ratings. Such ratings, once attached to a program, would have to be transmitted. A producer or broadcaster objecting to the requirement of transmitting ratings, based on the First Amendment's general unfriendliness to forced speech, would likely prevail. The government's attempt to justify requiring transmission would likely fail, because the underlying ratings system is useless. The government could neither claim that the transmission was needed to protect children, nor that rational parents would use the transmitted ratings to choose shows (because shows

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III. THE SUBSTANTIVE FIRST AMENDMENT CLAIM AGAINST THE V-CHIP

Assuming that a litigant can get past the state action requirement, he must still convince a court that the V-chip ratings system violates the substantive requirements of the First Amendment. Proving that the V-chip rating constituted state action, but losing the claim that the First Amendment was violated, would provide the litigant no relief.

Any court evaluating such a First Amendment claim would need to cover many issues to fully treat the case. I will attempt no such thorough treatment in this section. Instead, I will discuss only a subset of the issues. I will divide the analysis, once again, according to whether the suit challenges a system devised in Stage One or Stage Three.

A. Substantive First Amendment Analysis in Stage One

1. The Nature of the Infringement of Speech

To analyze the substantive First Amendment claim, we must first spell out the nature of the infringement claim. This claim will differ, at least in Stage One, based on the nature of the producer's complaint. If the producer is attacking the entire V-chip ratings system, he will likely claim that the system, in general, chills speech. This could be a claim about any ratings system, or, more likely, a claim about the type of ratings system actually adopted. In either case, the producer will claim that the existence of the system causes producers, networks, and others to alter their speech in ways to satisfy the system. The mix of speech produced by the market

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87 This argument would likely be available to both a plaintiff objecting to the entire V-chip ratings system, and to one who is objecting to the rating attached to a particular show. The ratings must be transmitted in general, and as to any particular show that has been rated. Hence, at both levels, there is state action.

88 For example, I will not discuss the "forced speech" issue.

89 The closest analogy would be the "vagueness" and "overbreadth" cases in First Amendment law. The cases on vagueness require that speech regulation be precise, so as to give those subject to the regulations notice of exactly what is prohibited. The Court desires to reign in governmental prosecutorial discretion, Kolender v. Lawson, 461 U.S. 352 (1983), and to avoid "chilling" speech by those who are uncertain as to the reach of the regulations, Houston v. Hill, 482 U.S. 451 (1987); Smith v. Goguen, 415 U.S. 566 (1974); Baggett v. Bullitt, 377 U.S. 360 (1964); NAACP v. Button, 371 U.S. 415 (1963). In overbreadth cases, the Court invalidates speech regulations that reach substantial amounts
will, in turn, change. Disfavored speech will be produced less.\textsuperscript{90}

An alternative theory of infringement will likely be advanced by a producer who is complaining about the rating his particular program receives. Such a producer will claim that the rating for his program burdens his individual speech, much like a tax or a license would burden his speech. When his programs have ratings that will cause more V-chips to reject the program, his speech is limited.\textsuperscript{91}

2. Chilling Effect

I will discuss the chill argument first and then return to the license argument. To evaluate the chill argument we will need some way to analyze the likely effect of the V-chip on the market. Broadcasting & Cable Magazine seems to think that the effects have already arrived:

Hollywood’s broadcast network producers and programmers say they are stoically bracing themselves for the future under a new television ratings system they contend will place a premium on blandness rather than creativity.

Although most are taking a wait-and-see attitude, some have stepped up production or orders for family-friendly shows since the passage last February of legislation mandating a V-chip device that will allow parents to block certain programming, and

\textsuperscript{90} of protected speech, in addition to unprotected speech, and allows those challenging the regulations to assert that the protected speech of third parties will be "chilled" by the regulations. See Secretary of State v. J.H. Munson Co., 467 U.S. 947 (1984); Schad v. Mt. Ephraim, 452 U.S. 61 (1981); Broadrick v. Oklahoma, 413 U.S. 601 (1979).

The Court has often used the (sometimes presumed) change in the mix of speech in the marketplace produced by a change in incentives from government regulations as a basis for invalidating various restrictions on speech. See United States v. National Treasury Employees Union, 115 S. Ct. 1003 (1995) (declaring unconstitutional a federal law preventing government employees from being paid for off-the-job speeches and writings so as to avoid chill to these expressive activities); Simon & Schuster v. Members of the N.Y. State Crime Victims Bd., 502 U.S. 105 (1991) (striking down state law preventing criminal from profiting from sale of story so as to avoid chill to criminals' speech); Miami Herald, 418 U.S. 241 (Court struck down a "right of reply" statute in newspapers, in part on the basis that the statute would chill newspapers' editorializing); New York Times v. Sullivan, 376 U.S. 254 (1964) (limiting reach of state defamation laws to reduce potential chill to criticisms of public officials). For similar concerns about the "fairness doctrine," see 1985 Fairness Doctrine Report and Order, 102 FCC 2d 145 (1985).

\textsuperscript{91} Clearly some government officials, including President Clinton and Representative Edward Markey (D-Mass.) are hoping for a chilling effect. See infra note 93.

\textsuperscript{91} The second theory, of course, suffers from the state action problems reviewed above. There are two additional problems, both resembling state action, that may plague this cause of action. First, producers rate their own shows, at least in the first instance. Hence, a producer unhappy with his rating could rerate himself. The recently-announced system will include a 19-member appeals board to resolve ratings disputes, so it is possible that self-help may not be available. Hall, supra note 78. In addition, viewers must choose to set the V-chip filter before any shows are removed from the set. These actions may serve to cut the link between any government action and individual producer injury.
Hollywood's subsequent agreement to develop a companion ratings system.

At least one prominent producer thinks that the atmosphere already is restricting creative freedom . . . \(^{92}\)

*Broadcasting & Cable Magazine* may or may not be right about the V-chip. As I will show below, the market effects of the V-chip will depend on crucial details, which one cannot reasonably expect government officials\(^{93}\) or perhaps even from members of the industry to reveal. Hence, whoever has the burden of proof in showing a chill will likely fail.

The nature and source of the appropriate burden of proof in this issue lies beyond the scope of this article. However, I must point out that the Supreme Court, starting with *Ginsberg v. New York*\(^{94}\) and going to the present,\(^{95}\) has utilized a very light burden of proof for the connection between children's exposure to indecent material and ill effects from the exposure. The Court has been willing to presume bad effects, or accept rather thin evidence to satisfy the burden. Such an attitude could produce an analogous result in the case of the V-chip, leading the Court to require a large burden of proof to show a chill from regulations designed to shelter children from "inappropriate" material.

a. Basic Method of Analyzing Television Competition

I will analyze the market behavior of TV broadcasters and cablecasters by utilizing spatial models. These models were originally used to describe competitive behavior of business firms,\(^{96}\) but were later adapted to describe competition between candidates in elections.\(^{97}\) In these models I assume a one dimensional continuum. For analytical purposes I will presume a content-based rating

\(^{92}\) David Topenkin, *It's All in the Family TV, Broadcasting & Cable Mag.*, June 3, 1996, at 24; see Howard Rosenberg, *Dick Wolf: Rating TV's New Order*, L.A. TIMES, Jan. 3, 1997, at F1 (quoting veteran producer as fearing chill of "the 10 o'clock drama").

\(^{93}\) Clearly some government officials are hoping for a chilling effect. "V-chip proponent Rep. Edward J. Markey (D-Mass.) has said that if even a small percentage of parents take advantage of the technology, ratings would decline for objectionable programming, thus reducing levels of violence." Brian Lowry, *So, They Fixed TV. . . .*, L.A. TIMES, Dec. 29, 1996, at 9. "President Clinton has said that if enough viewers respond to these initiatives, 'It will change programming, hopefully for the better.'" *Id.*

\(^{94}\) 390 U.S. 829 (1968).


\(^{97}\) *See Gary W. Cox, Multicandidate Spatial Competition*, in *ADVANCES IN THE SPATIAL THEORY OF VOTING* (James Enelow & Melvin Hinich eds., Cambridge Univ. Press 1990).
system. I will consider the unit on the real line, with the most violent shows at "0" and the least violent shows at "1." Note that this does not correspond directly to the age-based portion of the system adopted by the industry. However, it corresponds directly to the "V", "S", "L", and "D" portions of the system.

I assume that viewers have single-peaked preferences over the types of shows, and for most of the analysis I will assume that viewers' ideal program types are distributed evenly (for example, there is a rectangular distribution). Viewers choose to watch the show that is closest to their ideal type. Broadcasters and cablecasters choose the type of program that they air to garner the maximum number of viewers. (There are no moral considerations constraining the broadcasters and cablecasters in this model.) I also presume that none of the other proposed methods of dealing with the violence on television issue are being implemented simultaneously. These would include removing advertisers' ability to sponsor individual programs, taxing advertising-derived revenues and giving the proceeds to broadcasters on the basis of how many viewers they garner, strengthening craft unions to allow them to negotiate over content, or giving control of the broadcasting business to those who have a "personal stake" in quality.

To get a feel for the operation of the model, consider a market with two broadcasters. I will use a conjectural variation, in which the broadcasters choose their type of programming under the assumption that the other broadcaster will remain constant. Under these assumptions, what will the broadcasters do? They will both choose to locate in the center of the violence spectrum, showing programs that are one half as violent as the maximum possible.

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98 This means that there are the same number of viewers whose ideal point lies between 0 and 0.1 as there are viewers whose ideal point lies in any other interval of length 0.1, such as 0.4 to 0.5 or 0.75 to 0.85. We will denote an interval "a" to "b" by [a,b].

99 Modern literature sometimes relaxes this assumption, claiming instead only that a consumer's choice is a probabilistic function of the relative distances. See Simon P. Anderson et al., Discrete Choice Theory of Product Differentiation 284, 300 (MIT Press 1992).

100 This model does not take into account the mixed nature of funding in the broadcast and cable business. Broadcast is entirely advertiser-supported, while expanded basic channels are supported by a mix of advertiser and viewer payments, and premium cable channels are almost entirely supported by viewer payments. I know of no model of spatial competition that incorporates different methods of payment for the competitors. For my purposes, however, assuming audience maximization is quite acceptable. All of these forms of payment respond positively to increases in audience size.


103 See Kim, supra note 101, at 1437.

104 See C. Edwin Baker, Merchaphobia, Nation, Nov. 8, 1993, at 520.
Under these circumstances, each broadcaster gets fifty percent of the total audience. The broadcasters are in equilibrium because neither broadcaster has an incentive to relocate. To see this, ask what would happen if one of the broadcasters, say B₁, were to decide to provide more violent fare, and locate at 0.4.

Then B₁ would garner all of the viewers between 0 and 0.4, and also the viewers between 0.4 and 0.45. (B₂ would get all the rest.) As a consequence, B₁ would have forty-five percent of the total audience, which is not as good as the fifty percent that B₁ had when located at 0.5. Hence, B₁ would not make such a move. Similarly, B₁ would not make a move to the right and program less violent fare. The same reasoning applies to B₂ as long as B₁ is at 0.5. In sum, neither broadcaster will change position.

Such models will not always have equilibria. To see this, consider what happens with three broadcasters.¹⁰⁵ What would happen if all three broadcasters were to locate at 0.5? Under this arrangement each broadcaster would have 1/3 of the total audience. It would then immediately pay one of the broadcasters, say B₁, to move epsilon to the right (or left). Once B₁ had done so, it would have approximately fifty percent of the audience, and B₂ and B₃ would have twenty-five percent each.

¹⁰⁵ Assuming that firm strategies or consumer choices are probabilistic can restore some equilibria. See Anderson, supra note 99, at 284, 300.
But once this happens it would pay either $B_2$ or $B_3$ to leapfrog over the other to the left (or, if $B_1$ had gone left, then to the right). If, say, $B_2$ were to do so, and locate epsilon to the left of 0.5, then $B_1$ and $B_2$ would each get approximately fifty percent of the viewers and $B_3$ would get virtually nothing.

Now $B_3$ has an incentive to leapfrog over either $B_1$ or $B_2$ and garner the viewers on one side or the other. Assume that $B_3$ leapfrogs over $B_1$. Then $B_1$ will find itself trapped.

Now $B_1$ will have an incentive to leapfrog over $B_2$ or $B_3$. This leapfrogging will continue until the broadcasters are so far from the center that it suddenly pays one of them to return to the center.
However, once one of the broadcasters has returned to the center each of the other two broadcasters will have an incentive to move in close and crowd the broadcaster in the center, garnering virtually all of the viewers on either side. Once this happens the leapfrogging starts all over again. In fact, under these circumstances, there is no stable arrangement of broadcasters; the leapfrogging, return, crowding, and leapfrogging behavior will continue forever.

As a brief side note, such a prediction might explain the appearance of rapid turnover and churning in broadcast television. The networks, particularly when there were only three, were constantly programming and counterprogramming. This behavior might represent a market without an equilibrium.

In contrast to the market with three broadcasters, with four or more broadcasters there are stable arrangements. However, with four or more broadcasters, not all the programming will be clustered in the middle. Consider the case of four broadcasters. Two broadcasters will pair off at 0.25 and two more will pair off at 0.75. Each broadcaster will garner twenty-five percent of available viewers. This equilibrium is unique.

With six or more firms in a market the equilibria are no longer unique. However, every equilibrium is characterized by the following conditions:

(1) Peripheral broadcasters—those closest to either 0 or
1—are paired. Thus, every equilibrium with six or more firms must look like the figure immediately below.

**Figure 8**

B1&B2

↓

B(n-1)&Bn

With six or more firms, the peripheral firms are paired.

2. No broadcaster can have an audience smaller than the audience of the peripheral firms.

3. No broadcaster can have an audience more than twice as large as any other broadcaster’s audience.

b. Putting the V-Chip into the Market

Now, how will adding the V-chip change the offerings in broadcasting markets? The answer is “it depends.” The V-chip will change the broadcasting market in different ways depending on the number of broadcasters in the market, the rating system’s decision about which programs to consider violent, and the way in which the viewers will use the technology.

To get a feeling for how the V-chip can change the market, I will analyze a market with two broadcasters. I will use a very simple assumption about how the government (or industry) rates television programs: the ratings administrator rates a program as violent or nonviolent. This, in essence, means that the ratings administration picks a standard, \( v \), at some place on the violence continuum, and rates all programs to the left of that standard “violent” and all programs to the right of that standard “nonviolent.”

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106 See Eaton & Lipsey, supra note 96, at 29.
107 Id. at 31.
108 Id.
109 The V-chip may actually utilize several grades of violence. Thus, an administrator might rate programs on a scale of \( v_1 \) to \( v_{10} \) where \( v_1 \) is most violent and \( v_{10} \) is least violent. A viewer might choose some standard, say \( v_a \), and then the V-chip would block all programs with ratings from \( v_1 \) through \( v_a \) but allow programs rated from \( v_{7} \) through \( v_{10} \) to appear on the television set. In appendix 6, infra, I take a few preliminary steps at analyzing a video market where the V-chip ratings system has many settings.
How will viewers respond to the V-chip? Who will choose to use the V-chip and block out all those programs that are rated more violent than the standard? I will use two alternative assumptions about who uses the V-chip. Recall that viewers are characterized by having an ideal type of program on the violence continuum, and that I have assumed that these ideal types are distributed evenly over \([0, 1]\).

i. Assumption A1 Regarding V-Chip Use

My first assumption about the distribution of those who choose to use the V-chip is that they are distributed across the violence spectrum in the same way that viewers in general are distributed across the violence spectrum. Hence, if \(x\%\) of viewers whose ideal point is 0.6 use the V-chip, then \(x\%\) of viewers with any other ideal point use the V-chip.

*Discussion:* This assumption is somewhat counterintuitive. After all, one would think that those who have ideal points to the left of \(v\), the government standard, would not use the V-chip. After all, using the V-chip removes the user’s favorite type of program. The response to this reasoning runs something like the following: those who use the V-chip are not doing so for themselves. Instead, the V-chip helps parents remove violent programs from the household, regardless of whether the parent would like to see violent programs. As long as we are counting only the adults as viewers, then this assumption may well be correct. What of the children?\(^{110}\) Perhaps parents whose children who love violent programming use the V-chip more frequently than parents with children who do not

\(^{110}\) *See* James T. Hamilton, Does Viewer Discretion Prompt Advertiser Discretion? The Impact of Violence Warnings on the Television Advertising Market (June 29, 1996) (draft presented at Duke Conference on Media Violence and Public Policy), indicates that the advertising rates for violent programs do not change with respect to changes in the number of children in the audience. If Professor Hamilton’s results are correct, then we would need to know at what point on the violence continuum (i.e., 0.62, 0.87) children start to “count” to complete the analysis. This complication is beyond the scope of this paper.
like violence. In this case the assumption would be inaccurate, but inaccurate in a way that is opposite to our original concern. Perhaps the phenomenon of parents removing children who love violence from the audience counterbalances the phenomenon of adults without children refusing to use the V-chip if \( v \) is to the right of the adult’s favorite program type. There is one additional consideration. If any security procedure that is good enough to keep children from removing the V-chip filter will also be complex enough to keep most adults from turning it on and off, then parents must also screen themselves out of violent, sexual, and other programming, along with their kids. If parents who like violent shows but do not want their children to see violence are just as likely to activate the V-chip as parents who dislike violent shows, then Assumption A1 will be satisfied, and adults and children will be removed from part of the audience in uniform fashion.

ii. Assumption A2 Regarding V-Chip Use

Those who use the V-chip are located only to the right of \( v \), the government rating standard. But those to the right of \( v \) who choose to use the V-chip are distributed in the same way as viewers are generally distributed over this range.

Discussion: This assumption posits that parents cannot easily turn the V-chip on and off, and are willing to exercise control over their children’s viewing right up to the point that doing so would remove the adult’s favorite program from the set. At that point the parent gives up and stops using the V-chip.

Of course, I could utilize an almost infinite number of variations on these assumptions about the characteristics of those who will use the V-chip. Each variation might produce some change in the results of the analysis. To get a feeling for the style of the analysis and the form of the results (both in economics and in the First Amendment) we will proceed with the two assumptions listed above.

iii. Two Broadcasters, Rectangular Viewer Distribution,
Assumption A1 Regarding V-Chip Use

The results of this model will depend on whether \( v \) is greater than or less than 0.5. If \( v \) is less than 0.5, then both broadcasters will locate at 0.5, and the equilibrium will be unchanged from the case in which there is no V-chip.

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111 A full treatment would endogenize the behavior of viewers in a game, but that is beyond the scope of this article.
If \( v \) is greater than 0.5, then there are two different equilibria. First, define \( p \) to be the percentage of the viewers who use the V-chip.

**Case i:** \( 2(1-p)v < 1 \). In this case both broadcasters locate at \( v \) and earn \( \frac{1}{2} \) of the available viewers.\(^{112}\)

![Figure 10](image)

Both broadcasters remain at \( v \).

**Case ii:** \( 2(1-p)v > 1 \). There are two subcases. If \( v < p+0.5 \) then there is no equilibrium. If \( v > p+0.5 \), then there is an equilibrium with both broadcasters locating at 0.5.\(^{118}\)

### Summary

<table>
<thead>
<tr>
<th>Parameter Conditions</th>
<th>( v &lt; 0.5 )</th>
<th>( v &gt; 0.5 ) and ( 2(1-p)v &lt; 1 )</th>
<th>( v &gt; 0.5 ) and ( 2(1-p)&gt;1 ) and ( v &lt; p+0.5 )</th>
<th>( v &gt; 0.5 ) and ( 2(1-p)&gt;1 ) and ( v &gt; p+0.5 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equilibrium Outcome</td>
<td>Pair at 0.5</td>
<td>Pair at ( v )</td>
<td>No Equilibrium</td>
<td>Pair at 0.5</td>
</tr>
</tbody>
</table>

Thus, we see that the V-chip and government rating of television programs can make the market more complex. Under certain circumstances, the equilibrium was completely destroyed. Where the equilibrium exists, it is either unchanged from the case with no V-chip—both broadcasters locate at 0.5—or changed such that both broadcasters locate at \( v \). The next part of the analysis, immediately below, will reveal a very different story.

iv. Two Broadcasters, Rectangular Viewer Distribution, Assumption A2 Regarding V-Chip Use

Recall that assumption A2 posits that only viewers whose ideal point lies to the right of \( v \) will use the V-chip. The results in this general case depend on whether \( v \) is to the right or left of 0.5.

If \( v \) is to the left of 0.5, then the equilibrium exists and is identical to the case without the V-chip. Both broadcasters locate at 0.5.

\(^{112}\) See infra appendix 1.

\(^{118}\) See id.
If \( v \) is to the right of 0.5, then we cannot get an equilibrium pair at \( v \). We can get an equilibrium at \( e = (1/2) (v + (1-p)(1-v)) \) if and only if \( e > (1+p)(1-v) \).\textsuperscript{114} Where such an equilibrium exists, if \( p \) is small and \( v \) is large, the programming could be \textit{more} violent than it would without the V-chip. In other words, \( e \) may be less than 0.5. This slightly counterintuitive result makes sense only because of the behavior of viewers.\textsuperscript{115}

c. Preliminary Implications From Two-Broadcaster Markets

Analyzing markets with only two broadcasters gives a dizzying array of results. Depending upon the assumptions regarding the percentage of people who choose to use the V-chip, the way they use it (assumptions A1 or A2), and the placement of the violence standard, the equilibrium may be destroyed. Where the equilibrium exists it may be less violent, equally violent, or more violent than that found in the market without the V-chip. Predicting which of these outcomes is likely to obtain requires a fairly good knowledge of the parameters in the model.

What, if anything, is the likely legal import of this? It depends on where the Court places the burden of proof to show a chill of violent speech. If there is a heavy burden on the plaintiff, and showing the possibility of a chill is not enough, then the plaintiff will likely lose. There is no evidence that anyone involved in the V-chip ratings process, including program producers, politicians, or (eventually) judges, has a good idea of the parameters in the model. I certainly have no good idea about them. Unless the plaintiff can get a good source of data, the plaintiff will lose. On the other hand, if the Court essentially places the burden on the defendant to show no chilling effect, the defendant will lose. Certainly a chill of violent speech is possible, and ruling it out would

\textsuperscript{114} See infra appendix 9.

\textsuperscript{115} This resembles the sentiments of Brian Lowry of the \textit{L.A. Times}. In the realm of unintended consequences, there have been indications at least with the MPAA's movie rating codes, on which the new TV system is based, that a "G" rating can be off-putting to adults without children. Since advertising is sold primarily off how many young adults tune in, ratings for wholesome family shows could thus theoretically be hurt by the system. Lowry, supra note 93.
require data on the parameters in the model. Hence, at this stage, I would suggest that he who bears the burden loses. Of course, subsequent events could change all of this. If, after we have gained substantial experience with the behavior of viewers using the V-chip, governmental actors again tinker with the process, then this theory of First Amendment violation could gain substantial strength.

d. Larger Markets

Perhaps there is something special about the two-broadcaster market that produced the results. Perhaps there is some overwhelming pattern from three- or four-broadcaster markets that would lead us to conclude something different. We will examine some three- and four-broadcaster markets and find that no great pattern emerges.

i. Three Broadcasters, Rectangular Viewer Distribution, Assumption A1 on V-Chip Use:

Recall that there was no equilibrium in the absence of a V-chip. Are there any equilibria with the V-chip? Only in very limited circumstances, which are described below.

Certainly there can be no equilibrium with three broadcasters clustered on the interior of either range $(0, v)$ or $(v, 1)$, for the same reason that there is no equilibrium with three broadcasters and no V-chip; the "trapped" broadcaster will leapfrog to the outside of one of the other broadcasters.

Can there be an equilibrium with a cluster of only two? There are only three likely possibilities:

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure101.png}
\caption{Figure 101}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure102.png}
\caption{Figure 102}
\end{figure}
There are no equilibria possible in Figure 101.\textsuperscript{116} In addition, there can be no equilibrium in Figure 102. This results from $B_3$'s incentive to slide over and crowd $B_1$ and $B_2$ on the left side. Under some circumstances, however, there may be an equilibrium in Figure 103. If the relationship between $p$, the percentage of the population that uses the V-chip, and $v$, the location of the violence standard, satisfies two conditions, then equilibrium can exist.

(i) $1-v < 1/3$. This condition keeps $B_1$ (or $B_2$ or $B_3$) from moving slightly to the right and crowding the other two broadcasters.

(ii) $(1-p)v < 1/3$. This condition keeps each broadcaster from moving slightly to the left and crowding the other two.

Putting these two conditions together greatly restricts the range of equilibria. Condition (i) implies that $v > 2/3$. And putting this into condition (ii) suggests that $p > 1/2$. What would a sample equilibrium be? If $v = 5/6$ and $p = 0.7$, then all three broadcasters would remain at $v$ and Figure 103 would be in equilibrium. However, there is no guarantee that there is any pair $(v,p)$ that satisfies conditions (i) and (ii), and also the functional relationship between $v$ and $p$ that is defined by viewers' behavior. In other words, if the government sets the violence standard at greater than $2/3$, less than fifty percent of viewers may choose to use the V-chip.

Notice that if an equilibrium exists in Figure 103, the equilibrium will tend to be pushed very far to the right, and that the equilibrium will have crushed the diversity of offerings found where there was no V-chip or no equilibrium at all. An alternative way of characterizing the result is that the V-chip has allowed viewers effectively to control violent programming.

ii. Three Broadcasters, Rectangular Viewer Distribution, Assumption A2 Regarding V-Chip Use

Under these circumstances, there are no equilibria with three broadcasters clustered together.\textsuperscript{117} Also, there can be no equilib-

\textsuperscript{116} See infra appendix 3.
\textsuperscript{117} See infra appendix 4.
rium in Figure 102. B₃ has an incentive to slide over and crowd B₁. The only remaining possibility is for an equilibrium looking like Figure 101, and this fails as well.¹¹⁸

In sum, in three-broadcaster markets, the V-chip can create an equilibrium only in a limited range of circumstances. The viewers must use the V-chip in accord with assumption A₁ rather than A₂, and viewers must be willing to use the V-chip at a rather high rate, even when the violence rating standard is extremely strict.

iii. Four Broadcasters, Rectangular Viewer Distribution, Assumption A₁ Regarding V-Chip Use

Recall that without a V-chip the equilibrium had two pairs of broadcasters, one pair located at 0.25 and the other at 0.75. How does the V-chip change things?

If v < 0.25, the equilibrium is unchanged. What happens if 0.25 < v? There are two different sorts of possible equilibria. The first, depicted in Figure 12, has a pair of broadcasters located at v, and another pair located to the right of v.

![Figure 12](image)

To be in equilibrium, certain relationships must be maintained. First, (1−p)v ≤ 1−e. Further, 2(1−e) = e−v. This implies that 2+ = 3e. For example, v = 1/3, e = 7/9, p ≤ 1/3 is an equilibrium. As the violence standard v is made more strict (by moving farther to the right), e must move farther to the right, and p, the percentage of people using the V-chip, must rise. Thus, consider the equilibrium if v is set at 2/3. Then e = 8/9 and p = 5/6. That is a startlingly high percentage of people using the V-chip, particularly when the standard is strict. Hence, I suspect that as v becomes more strict, this equilibrium becomes less likely.

There is, however, one other possibility, and that is depicted in Figure 13. In order for this to be an equilibrium, two conditions must be satisfied. First, 3e = v. Second, 1−v = e(1−p). Such equilibria can exist only when 3/4 < v < 1.¹¹⁹ For example, v = 9/10, e = 3/9

¹¹⁸ See id.
¹¹⁹ Substitute v/3 for e into 1+v = e(1−p), and get (3−3v)/v = (1−p). If p = 0, v = 3/4, while if p = 1, v = 1.
and \( p = 2/3 \) is an equilibrium. Again, I regard such an equilibrium as unlikely.

**Figure 13**

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<table>
<thead>
<tr>
<th></th>
<th>B1&amp;B2</th>
<th></th>
<th>B3&amp;B4</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>e</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>v</td>
<td>1</td>
</tr>
</tbody>
</table>
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iv. Four Broadcasters, Rectangular Viewer Distribution, Assumption A2 Regarding V-Chip Use

The results in this model depend, again, on what \( v \) is. If \( 0 < v < 0.25 \) or if \( 0.25 < v < 0.75 \), then the equilibrium is identical to the case without a V-chip. Two broadcasters pair at 0.25, and the other two at 0.75. When \( 0 < v < 0.25 \) the reasoning is identical to the case with no V-chip. When \( 0.25 < v < 0.75 \), the reasoning, but not the results, differ.\(^{120}\) When \( 0.75 < v < 1 \), there is no equilibrium.\(^{121}\)

In sum, in four-broadcaster markets equilibria may not exist. If equilibria do exist they may be unchanged from the situation without a V-chip, or they may look quite different. Again, the particular outcome depends on the parameters in the model.

e. Implications From Two-, Three- and Four-Broadcaster Markets

There is no clear pattern of effects from the V-chip. The parameters of the models are crucial to determine whether an equilibrium exists and what its nature is. Again, there is no evidence at this juncture that anyone has any useful knowledge of these parameters. Consequently, he who bears the burden under a "chill" theory of a First Amendment violation can gain no comfort here. As I noted earlier, subsequent actions by government officials could change these conclusions.

f. Variations and Extensions

i. Stigma and Ratings

Some broadcasters have claimed that there will be a stigma associated with broadcasting shows that have been rated violent (or sexual or laced with strong language).\(^{122}\) This stigma, it is claimed,

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\(^{120}\) See infra appendix 5.

\(^{121}\) See infra appendix 8.

\(^{122}\) See Christopher Stern, *The V-Chip First Amendment Infringement v. Empowerment Tool*,
will cause broadcasters to eschew programming material likely to be so rated. As a consequence, it will be difficult to find such material on television.

There are at least two ways to interpret such a claim. The first regards broadcasters as engaged in something akin to consumption. In contrast to the assumption in the models above, broadcasters get utility from being “good citizens,” as well as from making money. The stigma from being rated reduces the consumption utility from broadcasting at a point toward 0 on the violence continuum. The equilibrium, if any, might well be shifted to the right.

The crucial question in evaluating such a claim about stigma (as affecting consumption) is whether it is generally true of broadcasters. Finding some broadcasters who care about such matters will not tell us whether or not the equilibria will shift. If a few broadcasters care, but others do not, then we would expect the overall equilibrium to be unchanged, but only those who feel no stigma to be producing and programming the stronger fare. We already know that some producers, such as Hugh Hefner or Al Goldstein, seem to feel little remorse at producing and programming sexual material. It may be fairly easy to find a supply of those who care little about being rated.

A second interpretation of the stigma argument is that advertisers will not want to be labeled as supportive of violent (or sexual or otherwise negatively controversial) programming. Again, it is the rating, rather than the programming, that plays the crucial role in the argument. As a consequence, advertisers and programmers will pay less for those viewers whose preferences lie on the left hand side of the violence continuum, at least when such viewers are attracted by violent fare. This process will push equilibria toward the nonviolent end of the spectrum.

To evaluate such a claim, one must decide whether or not the price of advertising on shows rated violent will decline. For such a


Hamilton, supra note 110, has shown that advisories of strong content before motion pictures shown on television reduce advertising revenues. “Broadcasters run more network promotions and fewer general product ads on theatrical films with warnings, consistent with the theory that warnings cause advertiser pullouts that lower prices.” Id. at 4. If these results were to carry over into the V-chip framework, the stigma argument would gain great force.

125 Note that the stigma comes not from broadcasting violent material, but from being labeled as a broadcaster of violence.

124 See Hamilton, supra note 110 (presenting theory and data supporting the stigma argument).
thing to happen, one must find more than two or three advertisers whose demand for time is reduced by the stigma. For the stigma to reduce the market price for advertising on shows rated violent, the marginal advertisers' demand must be reduced by stigma. Marginal advertisers are those who value ad time on violent programs at no more than the prevailing market rate. If price goes up, they shift to other advertising media—nonviolent television programming, newspapers, radio, magazines, billboards, and others. What is more, it will not do to find a few marginal advertisers who are currently advertising on shows that would be rated violent and conclude that the price of ad time would fall from V-chip ratings. There may be other marginal advertisers who are currently indifferent between buying ad time on violent programs and buying it elsewhere. If enough of these marginal advertisers are not affected by the stigma, then they will take the place of those marginal advertisers who are affected by the stigma and who therefore switch away from advertising on programs rated violent when V-chip ratings start. Because ad prices will not change in such circumstances, no change in programming should occur. Instead, one will only see a reshuffling of advertisements on shows.

There is no way to know, at this point, if either of the stigma arguments is correct. If they are right on the facts, then changes in equilibrium television output may well follow.

ii. Violence Unleashed

"Tom Wildmon, vice president of the Tupelo, Miss.—based American Family Assn., objects to any ratings, claiming they merely give the networks 'more license to do whatever they want to, under the guise of ‘Hey, we warned you.'" The amount of sex and violence in the marketplace might go up, rather than down, because of the V-chip ratings. Some broadcasters will feel free to program more violent fare than in the past because the broadcasters can deflect criticism with the V-chip. If a potential viewer objects to the violence, the broadcaster can say "use the V-chip to filter us out."

Such an argument can be interpreted in at least three ways. First, such an argument may refer to a broadcaster's need to deal with the reduction in profits stemming from unpopular, controversial programming. If sexual or violent programming angers

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125 Geoff Miller, Professor of Law, New York University Law School first suggested this argument to me.
enough potential viewers, the broadcaster may be made to suffer lost profits. Viewers may threaten to organize boycotts of advertisers' products, or opinion leaders may indicate that there is substantial social stigma from watching particular programs. Advertisers, in turn, may shy away from certain shows. If enough advertisers (particularly those on the margin) behave in this way, broadcasters' revenues may be hurt. The V-chip, however, may give broadcasters a way to defuse such situations without watering down sexual or violent programming. If saying "just filter us out" suffices to reduce outrage to mere grumbling, the broadcasters may face smaller (or no) problems from programming sex and violence when the V-chip is in the market. Consequently, the V-chip will increase the profitability of sex and violence. As a consequence, concludes this argument, equilibria shift to the left.

This version of the argument makes logical sense. However, pending some empirical evidence on the truth of the various assumptions in the argument, there is no way to know whether the argument correctly applies to the V-chip.

Second, this argument may be similar to the consumption version of the stigma argument reviewed above, but opposite in direction. Broadcasters, who get utility from broadcasting above and beyond that realized from maximizing profits, will get more utility from broadcasting violent fare once a V-chip rating system is in place. The increase in utility will derive from the ability to say "just filter us out" when outraged consumers object to the programming. The increased utility may shift equilibria to the left.

To evaluate such an argument, one needs to know essentially the same facts as those needed to evaluate the stigma argument. First, one needs to know if the underlying assertions about broadcaster motivations were true. Second, these assertions would have to be true of the broadcasters who had been presenting violent fare. If those who would suffer from the stigma from showing violence had been showing nonviolent fare, then instituting the V-chip would produce no change in the mix in the market. This is because those who had been showing violence suffered no stigma from showing violence, and consequently they could not be released from any stigma by instituting the V-chip ratings system.

Third, such an argument might be about the removal of an implicit regulatory constraint against showing highly violent fare. Indeed, at least as to programs showing indecency, instituting the V-chip ratings system might undercut the rationale for time zoning
indecency on broadcast television. In a forceful piece entitled *Media Filters, the V-Chip, and the Foundations of Broadcast Regulation*, J. M. Balkin argues that the V-chip will ultimately require reworking (and reducing) the restraints on televised broadcast indecency. If the Court were now to rule that governmental regulations requiring time-zoning indecent television broadcasts were unconstitutional because the V-chip ratings provided a much less intrusive alternative, then we might expect some indecent content during hours when children might be expected to be in the audience. Such programming would undoubtedly be rated for sexual content. As to violent but nonsexual programming, it is not clear that there has been any regulatory constraint. Hence, the V-chip ratings system probably cannot remove any constraint regarding violence.

iii. Allowing More Values of V or “Picky” Viewers

What happens if there can be more than one value of \( v \)? In my model above, consumers had only the choice of turning the V-chip on or off, and \( v \) was set equal to one value. What if the consumer has a choice of several settings? Do the results change greatly?

I am afraid I cannot yet answer this question fully. I have investigated the effect of giving the consumer an infinite number of values from which to select. In such a system, the consumer could select any number between 0 and 1, such as 0.3257 or 0.86156, for \( v \), and then the consumer would have infinitely fine control over which shows came into the house. Appendix 6 contains a proof that if the consumer has an infinite number of values from which to select, all equilibria may be destroyed.

In my model, viewers always watched whatever show was closest to their ideal points. What happens if viewers are “picky” and turn off the set if no alternative is close enough to their ideal points? The answer depends on how picky the viewers are. In some cir-

\[127\] Part of the rationale used in *FCC v. Pacifica Foundation*, 438 U.S. 726 (1978), to uphold time-shifting of indecent programming was to enable parents to control the broadcast diet of children. Of course, as to broadcast television, the V-chip now seems to provide a less intrusive alternative. The Court also hinted at the purpose of protecting children, with the state as a surrogate parent. See M. Spitzer, *Seven Dirty Words and Six Other Stories* 129-30 (1986).


\[129\] See *infra* appendix 7. Even this prediction is not as clear cut as it might seem. Such a regulatory constraint can destroy equilibria in some markets.

\[130\] This is similar to the problem of voters who refuse to vote unless there is a candidate that is close enough to the voter’s ideal. See Melvin J. Hinich & Peter C. Ordeshook, *Plural-
cumstances, new equilibria can be created that have more diversity than in markets without picky consumers. For example, consider a two-broadcaster market. Recall that the equilibrium without the V-chip was for both broadcasters to locate at 0.5. If consumers will watch if and only if there is an offering within 0.25 of their ideal points, then a new equilibrium will be obtained. One broadcaster will locate at 0.25, while the other will locate at 0.75.

I have not yet worked out the implications of a V-chip in such a market. Perhaps further research awaits.

iv. Entry and Number of Stations

How does potential entry, particularly in cable television, affect the ability of the V-chip to change equilibria in the broadcasting market? The formal answer is “I don’t know.” My guess is that entry makes sustaining any equilibrium in which large segments of the violence continuum are unserved quite unlikely. Large, unserved areas of the consumers’ tastes would provide profitable opportunities and invite entry.

The big question is the expense of entry. In broadcasting, where one needs a license, entry is quite difficult. In cable, where no license is needed to start a new cable network, entry is possible, but requires capital. The cheaper entry becomes, the more offerings we can expect in equilibrium. And as the number of outlets grows, we can generally expect a more diverse set of offerings in equilibrium.

v. Unrated Programs

How will the existence and treatment of unrated programs change the analysis? I witnessed a demonstration of a beta-system by Tim Collings, inventor of the V-chip, at the Duke Conference on Violence in the Media. In the demonstrated system, the viewer had the option of allowing through or blocking all unrated program material. If the final system has this feature, then the decisions of viewers on treating unrated material might change the


\[\text{131 This is similar to the question of candidate entry in political science. See Thomas R. Palfrey, Spatial Equilibrium with Entry, 51 Rev. Econ. Stud. 139 (1984).}

\[\text{132 This is not to be confused with the franchise, which is usually needed to build a cable system in a community.}

\[\text{133 See Bruce Owen & Steven Wildman, Video Economics 142-44 (1992).} \]
equilibrium. If all viewers choose to block unrated material, then the models described above work perfectly—all producers will choose to rate their programs, for that will be the only way that anyone will be able to receive the programs. On the other hand, if enough viewers choose to allow unrated programming through, some producers may choose not to rate their programs. Depending upon which viewers choose to allow through unrated programs, the equilibrium might be changed. Computing these changes awaits further research.

vi. Summary of Variations and Extensions

I do not know all of the answers to the questions posed in this section. The answers I do know, however, do not all point in one direction. Depending upon which variation one examines, the V-chip might produce effects in one direction or another. Hence, I would conclude that there is nothing here that would give any aid or comfort to a plaintiff trying to prove a chill-based cause of action against the V-chip ratings system.

g. Summary of Various “Chill” Arguments

Assuming the plaintiff had the burden of proof to show the chill, his cause of action would fail because of an inability to demonstrate an infringement of speech by the V-chip. This leads us to consider the alternative theory of infringement that might be propounded by a complaining producer—the V-chip operates like a tax on his expression, reducing its range of delivery.

3. The License Theory of Infringement

A complaining producer’s argument would be straightfor-
ward. The V-chip ratings system prevents him from distributing his product to everyone who might otherwise be able to receive it. The program’s rating will cause it to be filtered out of the sets in many homes. In this way, the V-chip ratings system is standing between the producer and otherwise able (and willing?) recipients.

First Amendment “licensing” cases represent the closest analogy to the producer’s claims. The licensing cases consider various circumstances in which the government, through an administrative apparatus, makes governmental permission a prerequisite to communication. Representative cases have struck down schemes requiring permission from a City Manager to distribute literature, requiring a permit to use a sound amplification system on a motor vehicle, or requiring a permit—to be issued at the unfettered discretion of the mayor—for placing a newspaper vending machine on public property. Although some licensing cases have been upheld, the Court remains very skeptical of licensing schemes.

Many of the licensing cases considered attempts by state and local governments to create permit systems for motion pictures. The federal courts tend to treat governmental regulations that license motion pictures very harshly. These regulations, which restrict the ability of motion picture theaters to show sexual or violent fare to children and teenagers, were routinely struck down. The film ordinances and the V-chip ratings system bear a certain similarity because these film ordinances were undoubtedly passed, in part, for the purpose of protecting children, and because the film licensing ordinances attempted to filter children out of the audience.

135 Here we must presume that the producer prevailed on his somewhat shaky state action argument in the section before.
136 See Lovell v. City of Griffin, 303 U.S. 444 (1938).
140 See Forsyth County v. Nationalist Movement, 505 U.S. 123 (1992). This should be understood as part of the Court’s general hostility toward any regulation that gets classed as a “prior restraint” of speech. See Chemerinsky, supra note 29, § 11.2.3.
The Court should find that the V-chip ratings scheme differs from the film licensing scheme in two important ways. First, the film licensing schemes were designed to prevent children (and sometimes adults)\textsuperscript{142} from seeing harmful material, regardless of the views of the families involved. In contrast, the V-chip will allow families to make decisions for themselves. This both greatly reduces the burden on distributing the rated material, and also allows more precise filtering of material to children according to parents’ wishes.\textsuperscript{145} Second, a motion picture ratings system could allow children to see movies if accompanied by a parent or guardian, much as the private Motion Picture Association of America (“MPAA”) rating system does with “R” rated movies.\textsuperscript{144} This imposes substantial costs on any parent wishing to let his or her child see the rated motion picture. In contrast, the V-chip ratings scheme will impose very low costs on any such parent.

My guess—that these two reasons will serve to distinguish the film licensing cases—rests in part on the federal courts’ attitude toward “time zoning” indecent broadcast material.\textsuperscript{145} Indecency, which has much more to do with sex and language than with violence, can be regulated so as to keep it away from children. Broadcast indecency may therefore be restricted to certain portions of the day.\textsuperscript{146} As Judge Harry Edwards and Mitchell Berman have forcefully pointed out, this represents a burden to those parents who wish to expose their children to indecent broadcasts.\textsuperscript{147} And despite this burden, such restrictions on broadcast indecency have been upheld. Where better filtering can be implemented, such as with indecency over the telephone (also known as “dial-a-porn”),

\textsuperscript{142} Criminal prosecution, rather than licensing, has been used to keep material away from consenting adults. \textit{E.g.}, New York v. Mature Enters., 349 N.Y.S.2d 911 (1973) (finding the film \textit{Deep Throat} obscene).

\textsuperscript{143} One way of looking at the choices of private parties to utilize the V-chip is that they might “cut the causal chain” between governmental action and the infringement. The producers might respond that the definition of the categories, and the decision to use an age-based system, establishes enough rigidity in the system that the viewer’s choice to use the V-chip rating system does not let the government off the First Amendment state action hook.

\textsuperscript{144} \textit{See Interstate Circuit, Inc.}, 390 U.S. at 678-81.


\textsuperscript{147} \textit{Edwards & Berman}, supra note 8.
the government must implement better filters.\textsuperscript{148} Once children, but not adults, are screened out, the regulation of telephonic indecency passes constitutional muster.

The V-chip ratings system compares very favorably to the indecency regulations that have been upheld. The V-chip ratings are not nearly as intrusive as the time zoning regulations for broadcast indecency.\textsuperscript{149} Under the V-chip ratings system, very violent, sexual, or profanity-laced programming may be broadcast or cablecast at any hour of the day. It will be up to adults (parents for their children and other adults for themselves) to filter out the content. The V-chip ratings also compare favorably to the filtering approaches (for example, requiring a credit card) adopted for dial-a-porn. The cost and potential risk from setting a V-chip is clearly lower than that involved in giving out a credit card number over the telephone.\textsuperscript{150}

The grounds on which the V-chip ratings scheme can be distinguished from the motion picture licensing precedents—parental autonomy and low cost—match closely the ways in which the V-chip is less burdensome than the indecency regulations that have been approved. As a consequence I expect the Court to distinguish, as a general matter, the motion picture precedents when ruling on the constitutionality of the V-chip.

4. Sufficient Justification for the Infringement?

Assuming the Court concludes the V-chip ratings system, and perhaps its application, constitutes state action, and that the system infringes upon speech in some judicially cognizable fashion, the Court must still confront the questions of whether the infringements are sufficiently justified. Particularly, the Court must decide whether the government has a good enough reason for infringing this sort of speech, and whether the V-chip ratings system is sufficiently closely connected to the government's good reasons.

\textsuperscript{148} See Sable Commcns., Inc., 492 U.S. 115; Balkin, supra note 11.
\textsuperscript{149} I am presuming that the two sorts of regulations are substitutes, not complements. See Balkin, supra note 11 (arguing that they must be substitutes).
\textsuperscript{150} Kim, supra note 101, analyzes part of the First Amendment issue correctly. He perceives that the Court's view of ratings as content-based regulation will lead to strict scrutiny, which will demand that regulations be narrowly tailored to a compelling state interest. Then, unfortunately, Kim gives the reader only the following sentence, "Given the ongoing controversy over the precise effects of media violence and the problem of definition, the government would face a tough battle in demonstrating both its compelling interest and the required fit between means and ends." Id. at 1406. Kim later acknowledges that the D.C. Circuit did find that enabling parents to control children's television viewing represented a compelling state interest, but fails to follow up with a serious analysis of whether ratings and the V-chip would be narrowly tailored. Id. at 1408-09.
a. Finding the Standard of Review

In theory, a court must first choose a standard of review with which to evaluate a regulation of speech. Usually the choice of a standard is crucial, for the more demanding the standard, the less likely the regulation will pass muster. However, as I will explain in detail below, I believe that the choice of a standard in this case will not be particularly important. The V-Chip regulations are likely to pass the most demanding level of scrutiny, and hence will also pass less demanding levels of review.

The two standards of review that will contend for the court’s choice are “strict” scrutiny and “intermediate” scrutiny. Strict scrutiny generally requires that the regulation of speech be designed to serve a “compelling state interest,” and that the regulation must be “carefully tailored to achieve” the compelling interest.151 This formulation, which is supposed to express skepticism about the validity of the regulations at issue, is to be applied to regulations that are “content-based.”152 Such regulations, which reward or punish speakers based, in part, on the content of speech, are presumptively invalid.153 “Intermediate” scrutiny, in contrast, demands only an “important” governmental interest to justify the regulation. In addition, the regulation of speech must directly implement the important governmental interest, but need not be as narrowly tailored to the task as those that are tested under “strict” scrutiny.154 “Intermediate” scrutiny is often used to test content-neutral regulations155 or content-based regulations in the field of broadcasting,156 as well as regulations that have incidental effects on speech.157

In Denver Area Educational Telecommunications Consortium v. FCC,158 the Supreme Court split five to four on whether the federal

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152 See R.A.V., 505 U.S. at 382.
153 Id.; Texas v. Johnson, 491 U.S. 397, 412 (1992). Another implication of this statement is that the government has the burden of proof in such cases. See Chemerinsky, supra note 29, § 6.5.
155 See the discussion in Turner, 114 S. Ct. at 2459. Sometimes a regulation that is facially “content-based” is regarded as content-neutral if the motivation for the regulation is unrelated to suppressing or encouraging particular types of content. See Renton v. Playtime Theaters, 475 U.S. 41 (1986).
158 116 S. Ct. 2374.
courts should apply traditional formulations of the First Amendment doctrine in the field of telecommunications. Justice Breyer, writing for himself and three other justices, claimed not. The field of telecommunications is changing too rapidly, said Justice Breyer, to allow the Court to use one of the traditional verbal formulations for testing federal regulations under the First Amendment:

[N]o definitive choice among competing analogies (broadcast, common carrier, bookstore) allows us to declare a rigid single standard, good for now and for all future media and purposes. That is not to say that we reject all the more specific formulations of the standard—they appropriately cover the vast majority of cases involving Government regulation of speech. Rather, aware as we are of the changes taking place in the law, the technology, and the industrial structure, related to telecommunications, we believe it unwise and unnecessary definitively to pick one analogy or one specific set of words now. . . .

Rather than decide these issues, we can decide this case more narrowly, by closely scrutinizing [section] 10(a) to assure that it properly addresses an extremely important problem, without imposing, in light of the relevant interests, an unnecessarily great restriction on speech.\textsuperscript{159}

Note that Justice Breyer appears to be substituting a new formulation—"properly address[ing] an extremely important problem, without imposing, in light of the relevant interests, an unnecessarily great restriction on speech"—for the old standards. However, because Justice Breyer took such pains to deny that he was picking a standard, I will assume that Justice Breyer's plurality opinion chose no doctrinal structure that can be applied directly to the next case.\textsuperscript{160}

\textsuperscript{159} Id. at 2885. In his concurrence Justice Souter echoed Justice Breyer's sentiments about technological uncertainty counseling against picking a First Amendment doctrine for testing the regulations at issue:

All of the relevant characteristics of cable are presently in a state of technological and regulatory flux. . . . As cable and telephone companies begin their competition for control over the single wire that will carry both their services, we can hardly settle rules for review of regulation on the assumption that cable will remain a separable and useful category of First Amendment scrutiny. And as broadcast, cable, and the cyber-technology of the Internet and the World Wide Web approach the day of using a common receiver, we can hardly assume that standards for judging the regulation of one of them will not have immense, but now unknown and unknowable, effects on the others.

\textsuperscript{160} This aspect of Justice Breyer's opinion has received some harsh treatment. See Paul M. Barrett, \textit{Cable Ruling May Portend Internet Curbs}, \textit{Wall St. J.}, July 1, 1996, at B1 (quoting Laurence Tribe as saying Breyer's opinion is a "sugar-coated poison pill for the First Amendment"); James C. Goodale, \textit{Caught in Breyer's Patch}, 216 N.Y.L.J. 1 (1996) (describing Breyer's opinion as the "nadir of the Court's First Amendment jurisprudence").
In contrast, Justice Kennedy, joined by Justice Ginsburg, applied traditional First Amendment doctrine. "When confronted with a threat to free speech in the context of an emerging technology, we ought to have the discipline to analyze the case by reference to existing elaborations of constant First Amendment principles." Justice Kennedy rejected the plurality's reliance upon technological and economic change to delay developing standards. "The plurality seems distracted by the many changes in technology and competition in the cable industry. The laws challenged here, however, do not retool the structure of the cable industry . . . ." Justice Kennedy applied strict scrutiny and found all aspects of the statute unconstitutional.

Justice Thomas, writing for the Chief Justice and Justice Scalia, also embraced traditional First Amendment standards and rejected the plurality's reliance upon technological and economic change to justify any other course of action.

b. Finding a Good Reason

Regardless of whether the Court chooses one of the traditional standards, "strict" or "intermediate" scrutiny, or pursues Justice Breyer's formulation—looking for extremely important problems and regulations that do not unnecessarily restrict speech—the government will likely claim that the V-chip ratings system helps parents control children's diet of violent, sexually explicit, or profanity-laced programming. Will such a purpose—empowering parental control of children's television viewing—be regarded as compelling? If so, then the purpose will suffice for "strict" scrutiny and also for "intermediate" scrutiny and (probably) for Justice Breyer's "approach" as well.

I think that the recent trends in judicial reasoning on closely analogous subjects will push the Court to regard empowering parents as a compelling justification. The Court of Appeals for the Eighth Circuit held that protecting the "physical and psychological well-being of minors" from violence in video tapes represented a

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162 Id. at 2406.
163 Justice Thomas wrote:
Curiously, the plurality relies on "changes taking place in the law, the technology, and the industrial structure, relating to telecommunications," to justify its avoidance of traditional First Amendment standards. If anything, as the plurality recognizes those recent developments . . . suggest that local cable operators have little or no monopoly power . . . thus effectively negating the primary justifications for treating cable operators differently from other First Amendment speakers.
Id. at 2422 n.8 (citations omitted).
compelling state interest.\textsuperscript{164} And the Court of Appeals for the District of Columbia Circuit has already ruled that "helping parents supervise their children" is a compelling governmental interest.\textsuperscript{165} In addition, the Supreme Court has in the past been solicitous of protecting children and empowering parents, at least in the somewhat analogous area of indecent telecommunications.\textsuperscript{166} Justice Thomas recently characterized the law in the following language: "Our precedents establish that government may support parental authority to direct the moral upbringing of their children by imposing a blocking requirement as a default position."\textsuperscript{167} The trend, in short, is for the Court to approve governmental allocation of control of offensive television programming to parents. Given the political tenor of our times, I would bet that the Supreme Court will continue down this line\textsuperscript{168} and find that empowering parents to control children's viewing provides a compelling government interest. \emph{A fortiori}, empowering parents would also be an important governmental interest, and therefore satisfy intermediate scrutiny.

c. Finding a Close Connection Between the V-Chip and Empowering Parents

Is the V-chip ratings system, approved in Stage One, sufficiently "narrowly tailored" to pass "strict" scrutiny? If so, then the

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\textsuperscript{164} Video Software Dealers Assoc. v. Webster, 968 F.2d 684 (8th Cir. 1992). The Eighth Circuit struck down the Missouri law aimed at protecting children because the law was vague and not narrowly tailored. The purpose, however, was conceded to be compelling. \textit{Accord} Davis-Kidd Bookellers, Inc. v. McWherter, 866 S.W.2d 520 (Tenn. 1993). For a list of the various interests the state has invoked to justify protecting children from broadcast indecency, see Edythe Wise, \textit{A Historical Perspective on the Protection of Children From Broadcast Indecency}, 3 \textit{Vill. Sports & Ent. L.J.} 15, 19 (1996).

\textsuperscript{165} Action for Children's Television v. FCC, 11 F.3d 170, 177 (D.C. Cir. 1993).

\textsuperscript{166} See \textit{Sable Comms., Inc.}, 492 U.S. 115; \textit{Pacifica Found.}, 438 U.S. 726. In addition, the Supreme Court seems to have coalesced around protecting children from "sexually explicit" material as a compelling state interest. See \textit{Denver Area Educ. Telecomms. Consortium}, 116 S. Ct. at 2390 (Breyer, J.); \textit{id.} at 2416 ("Congress does have . . . a compelling interest in protecting children from indecent speech.") (Kennedy, J.); \textit{id.} at 2429 ("The parties agree that Congress has a 'compelling interest in protecting the physical and psychological well-being of minors' and that its interest 'extends to shielding minors from the influence of [indecent speech] that is not obscene by adult standards.'") (Thomas, J.). Note that this is only slightly different from empowering parents.

\textsuperscript{167} \textit{Denver Area Educ. Telecomms. Consortium}, 116 S. Ct. at 2429 (while discussing indecency regulation). The Supreme Court also analogized cable to broadcast, finding that cable has a "uniquely pervasive presence" and that patently offensive material can "confront the citizen in the 'privacy of the home,'" \textit{id.} at 2386. Justice Breyer used this characterization to justify the constitutionality of extending indecency regulation to cable television.

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V-chip ratings system will also pass the "directness" requirement of "intermediate" scrutiny.

The answer to the narrow tailoring inquiry will depend, in part, on the details of implementing the V-chip. The harder the V-chip is for adults to work, and the easier it is for children to circumvent, the less well-tailored is the ratings system. If we assume that the V-chip will be easy for adults and difficult for children, then the Court should regard the ratings system as narrowly tailored. The Court should find that the V-chip places little burden on adults' choice of shows, but effectively empowers parents.\textsuperscript{169} Those adults without children in the house can just turn the V-chip off, thereby allowing the set to receive everything. Those adults with children in the house can set the V-chip to screen out the unwanted material for children.

Are there less intrusive alternatives to the V-chip that accomplish the same purpose? There are two obvious alternatives to the V-chip ratings system's approach. First, parents could closely monitor their children's viewing. This might require sitting and watching the shows, or at least frequently monitoring what is on the set. Second, the V-chip could allow only blocking by day, time, and channel, thereby forcing parents to make an independent judgment about the worth of individual shows.\textsuperscript{170} The Court should find the two alternatives to the V-chip ratings system to be too costly and time-consuming for parents, or not sufficiently effective to invalidate the V-chip ratings system.

Requiring parents to closely monitor their children's viewing sounds ideal on the surface. However, many parents cannot afford to spend large amounts of time sitting with their children and monitoring what is on the set.\textsuperscript{171} Even when the parent is home, he or she must often perform other tasks to keep the household

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\textsuperscript{169} Note that when the purpose is to empower parents, the question of whether the criteria for age-rating the programming are appropriate becomes an inquiry into the types of programming that most parents would like to control.
\textsuperscript{170} Justice Breyer mentioned the "lockbox" as an example of a less intrusive alternative to segregating and blocking indecent material in Denver Area Educ. Telecomms. Consortium, 116 S. Ct. at 2893-94. As a result, the segregate and block requirement of section 10(b) is unconstitutional. The lockbox, however, would likely provide no reason for striking down the V-chip; the V-chip is easier to use than the lockbox, whereas the section 10(b) was harder for parents to use than the lockbox.
\textsuperscript{171} Justice Breyer mentioned the V-chip in favorable terms in the same case, id. at 2992, describing the V-chip as a reason to strike down the more intrusive alternative of requiring cable operators to segregate and block all indecent programming on access channels. Although, as Justice Breyer noted, the constitutionality of the V-chip was not at issue in Denver Area, his use of the V-chip indicates a favorable predisposition toward the new technology of program filtering.
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running. Once a child has learned to use the channel control, turning the set to a child-friendly show and leaving the room is quite risky. One leaves the child with Sesame Street, and may return to find the child watching MTV.

The second alternative, requiring the parent to program the set by date, time and channel, is likely to be ineffective. First, it would be quite costly. Any household that gets, for example, fifty channels of cable television, will have to monitor and decide about \((50)(24)=1200\) hours of television every day. This is likely to be a time-consuming task, even with the repetition in show lineup on some channels. Further, the programming task may well be beyond the competence of many parents. As a consequence, few parents will actually do the programming. Together, these arguments suggest that the first two alternatives to the V-chip ratings system are much more costly and thus less likely to be effective. Hence, the government should not be required to use one of the first two alternatives.\(^{172}\)

5. First Amendment Process and the V-Chip

If the Supreme Court finds the V-chip ratings system to be enough like film licensing to apply the precedents, it may well conclude that some form of First Amendment due process guarantees apply to the system.\(^{173}\) The form that the guarantees take will depend on whether the Court follows the film licensing cases directly, or engages in a more free-form sort of balancing suggested by Matthews v. Eldridge.\(^{174}\)

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\(^{172}\) One caveat should be mentioned here. If, in operation, the V-chip effectively chases all violence, sex, and strong language off of the air, so that adults are reduced to watching only material that is "fit for children," then in operation the V-chip might well offend principles of First Amendment law found in Butler v. Michigan, 352 U.S. 380 (1957).

If the Court were to conceive of the purpose of the V-chip to be reducing the amount of sexual and violent material on the air, rather than helping parents to control their children's diet, and if reducing (but not eliminating) such material were held to be a valid purpose, then the economic analysis of the V-chip presented in notes 92-133 and accompanying text, supra, would bear directly on the question of narrow tailoring. In order for the V-chip to be lawful it would have to implement, to some degree, the purposes of the law. Depending on the placement and weight of the burden of proof to show narrow tailoring (or "directly implementing" under middle tier scrutiny), the indeterminacy of the analysis might help establish, or fail to rebut a presumption of, narrow tailoring.

I will not discuss in the text the possible justification of overriding parents' judgments about what material is appropriate for children, mainly because the V-chip rating system allows parents to let all material into the home if they wish. Hence, the V-chip rating system seems to be very poorly tailored toward the purpose of reversing paternal judgment.\(^{179}\) Note that such a claim of process would likely be brought by a producer who is unhappy with the way in which his product was rated. As I noted below, such a claim would face severe problems with the state action requirement. See supra note 57 and accompanying text.

a. *Freedman v. Maryland*

The film precedents define the process rights of producers who are unhappy with the ratings of their motion pictures. Assume for the moment that the Court applies these precedents to the V-chip ratings system. Because the V-chip ratings system has a process for reversing producer ratings, perhaps where someone deems them to be "unreasonable," the appeals process issue may be central.\(^\text{175}\)

In *Freedman v. Maryland*,\(^\text{176}\) the Court considered the criminal conviction of a motion picture exhibitor who refused to submit his film to the Maryland State Board of Censors for prior approval. The Court first held that a state had the authority to require films to be submitted to a state review board. However, the Maryland statute violated the First Amendment because the procedures for reviewing an adverse censorial finding were too slow and costly to the film exhibitor. In particular, the *Freedman* Court ruled that (1) the film censor must bear the burden of proof; (2) any restraint on speech prior to a judicial determination must be limited to preserving the status quo and must be for as short a period of time as is possible for a reasonable judicial process; and (3) a final judicial determination on the censor’s ruling must be guaranteed to issue promptly.\(^\text{177}\) Failure to provide such procedural safeguards would amount to giving unlimited discretion to an administrative official to disallow speech—something that the Court has consistently ruled unconstitutional.\(^\text{178}\) The Court was particularly sensitive to the economic needs of film distributors for quick procedures, so as not to interfere with their incentives to distribute the film.\(^\text{179}\)

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\(^\text{175}\) The industry’s rating system includes a review board. “Valenti . . . disclosed that a 19-member board will be established to resolve disputes over the ratings. But the appeals board will consist entirely of people who work in television, rather than including any parents from the outside, as the MPAA uses with its movie ratings.” Jane Hall, *TV Architect Vows to Fight Federal Intervention*, L.A. TIMES, Dec. 13, 1996, at D1.

\(^\text{176}\) It may be relatively easy to get one person to declare another’s rating to be unreasonable. When a large sample of the public was asked to rate current television shows using the MPAA rating system (G, PG, PG-13, R, NC-17), the sample produced large differences of opinion as to how certain shows should be rated. See Michael Schneider, *How “Bad” Does the Public Think TV Is? Media Executives Have a Committee To Devise a Content Ratings System for Television*, ELECTRONIC MEDIA 3, July 29, 1996, available in 1996 WL 7555273.

\(^\text{177}\) Id. at 58-60; see United States v. One Carton Positive Motion Picture Film Entitled “491”, 567 F.2d 889 (2d Cir. 1966) (applying *Freedman*). See generally Annotation: Constitutionality of Regulation of Obscene Motion Pictures—Federal Cases, 22 L. Ed. 2d 949 (1970).

\(^\text{178}\) *Freedman*, 380 U.S. at 56. For a more recent example of the general principle, see Freeman v. Burson, 504 U.S. 191 (1992).

\(^\text{179}\) Particularly in the case of motion pictures, it may take very little to deter exhibition in a given locality. The exhibitor's stake in any one picture may be insufficient to warrant a protracted and onerous course of litigation. The distributor,
As applied to any V-chip ratings system that contains a process for reversing an "unreasonable" initial rating that a program producer assigns to his or her own product, the Freedman procedural requirements might require a lot.\textsuperscript{180} The rationale—that the economics of the medium will give the rater unfettered discretion unless review is very quick and inexpensive—would seem to apply directly. A program producer who is unhappy with an "adults only" type of V-chip rating, such as "TV-M," will need a quick and inexpensive process to help him position his product and make whatever changes, if any, are needed to attain the desired V-chip rating. As a consequence, I would expect the Court to hold that (1) the burden of proof must be on the V-chip rater who is reversing a program producer's rating of his own show; (2) prompt\textsuperscript{181} judicial resolution of the ratings dispute be guaranteed; and (possibly) (3) the producer's own rating will apply until the process is on the other hand, may be equally unwilling to accept the burdens and delays of litigation in a particular area when, without such difficulties, he can freely exhibit his film in most of the rest of the country.

Freedman, 380 U.S. at 59.


\textsuperscript{180} One could argue that the Freedman procedural requirements should not apply to a V-chip ratings system. The Freedman requirements were designed for dealing with administrative suppression of a motion picture, at least as to people under 21. Because the administrative treatment of motion pictures was so harsh, the corresponding procedural protections needed to be great. In contrast, one might argue, a V-chip rating will not suppress a television program to the same degree that motion picture regulation suppressed movies, and the procedural protections can correspondingly be more lax. The rebuttal, I suppose, would focus on the greater speed with which most television product must be brought to market. Because television shows are often created in a very short period of time, and much closer to the time of airing than motion pictures, the need for speedy and effective review of ratings might be greater in television than in motion pictures. For the purposes of this article, I will assume that the rebuttal will carry the day and that the Freedman procedural requirements will apply.

\textsuperscript{181} Prompt means less than eight weeks of administrative process for movies. See Teitel Film Corp. v. Cusack, 390 U.S. 199 (1968). Because the lead time for television episodes is much less than for movies, I would expect that the process would have to be faster for V-chip determinations.
complete.\textsuperscript{182} Of course, it might be difficult for the “voluntary” system to guarantee speedy judicial review without some further legislative action by Congress. The Telecommunications Act of 1996 gave disappointed producers no right to jump to the front of the line in court. Perhaps applying for temporary restraining orders and preliminary injunctions would suffice, but I doubt it. The substantive requirements for these procedures includes demonstrating likelihood of success on the merits. This may represent too much of a burden. If so, then processes currently available to disappointed producers would fail the \textit{Freedman} requirements. In the absence of further congressional action that improves review procedures in court, the Stage One system might be put to a stark choice: either allow “unreasonable” ratings by program producers to stand unchallenged, or else risk the entire ratings systems foundering on \textit{Freedman}’s requirement of a speedy process.

Any Stage One V-chip system that satisfies the \textit{Freedman} requirements is likely to be quite expensive. The V-chip system will have to rate huge numbers of hours of programs. Consider the following quote by Jack Valenti.

Let me put it to you in stark terms. A single cable system today, with 70 channels on the average, operating 24 hours a day, will produce 611,520 hours of programing a year. That amounts to 2,000 hours a day. Now, if you cut that in half and say half of it is going to be non-rateable—news, sports—you get down to a thousand hours a day. That’s the equivalent of rating 500 motion pictures a day. The movie ratings system rates two movies a day, sometimes three. So you have three movies a day versus 500.\textsuperscript{183}

If there are disputes regarding only three percent of the episodes rated, that will amount to fifteen movies’ worth of time per day that must be rerated by some administrative process and then put onto a fast judicial track. What is more, these fifteen movies of time per day might well turn into twenty or twenty-five separate cases, because many television programs are only thirty minutes long. Further, the V-chip rating system must be prepared to deal with peak load problems; some weeks will have thirty movies’ worth of time per day that must be re-rated, while other weeks will have none. The system must be able to deal with the periods of peak demand for re-rating without slowing up. This means that the sys-

\textsuperscript{182} This might represent preserving the status quo and would certainly give the V-chip ratings system incentives for speedy process.

\textsuperscript{183} West & Stern, \textit{supra} note 28, at 26 (comments of Jack Valenti).
tem will have to maintain excess capacity most of the time, and along with it a substantial expense. In practical terms it means that the V-chip ratings system will have to hire many re-raters and lawyers (for the subsequent judicial process).

There may be some ways of reducing these costs. First, once a show has been rated for exhibition in one market, that rating could be used for exhibiting the same show in other markets. An old episode of *The Mary Tyler Moore* show that is rated as “appropriate for children” over a cable system in Charleston, SC, should also be rated “appropriate for children” over a local broadcast in Ithaca, NY. Second, one could try rating series programming by sampling several episodes of the series and then presumptively using the rating derived from the sample for the entire series. Producers would be responsible for notifying the raters of any surprises in particular episodes. Third, distribution contracts could specify arbitration of any disputes. Such clauses might raise antitrust or First Amendment process concerns, but if such concerns were overcome, the monetary savings could be substantial.

b. *Mathews v. Eldridge*

Is there any possible response on the part of the government to the process requirements outlined above? Yes. The government might be able to persuade the Court to apply the modern balancing approach to procedural due process, rather than the “First Amendment” process approach from film cases, to the V-chip ratings system. In *Mathews v. Eldridge*, the Court defined a balancing test for deciding which procedures are required under the Fourteenth Amendment.

First, the private interest that will be affected by the official action, second, the risk of an erroneous deprivation of such interest through the procedures used, and the probable value, if any, of additional or substitute procedural safeguards; and finally, the Government’s interest, including the function involved and the fiscal and administrative burdens that the additional or substitute procedural requirement would entail.

In the 1980s and 1990s, the Court has been somewhat deferential

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184 "A panel of network and studio representatives led by Motion Picture Association of America President Jack Valenti has been meeting since March to hammer out [V-chip] standards... Shows probably will be rated on a seasonal basis unless there are indications of significant variance by episode." Topkenin, supra note 92, at 28.
186 *Id.* at 335.
to the government's choice of procedures under this test.\textsuperscript{187} As applied to the V-chip ratings system there would seem to be significant interests on both sides of the balance. The producer's First Amendment rights are at stake, and the economics of the business makes a speedy determination of the proper rating very valuable to the producer. However, the great expense involved will count as a reason to reduce the procedural protections under \textit{Mathews v. Eldridge}. I have no idea how the Court would or should do the balancing. But I am certain that this approach will give the government a better chance of victory than will the film licensing cases.

6. Summary of Stage One and the First Amendment

In Stage One, the Court should probably find the V-chip ratings system to be constitutional. The Court should regard empowering parents to control their children's television viewing as a compelling state interest, and then find the V-chip narrowly tailored to that purpose. Hence, a First Amendment claim based on the type of V-chip ratings system should fail. Further, the Court may require the V-chip ratings system to satisfy the procedural requirements of \textit{Freedman v. Maryland}, and doing so may require further congressional action.

B. \textit{Substantive First Amendment Analysis in Stage Three}

I will have very little to say in this section, mainly because I think the substantive First Amendment analysis is quite similar to that described above. One point needs elaboration, however. Recall that in Stage Three we established state action, in part, by the requirement that if a show is rated then the broadcasters \textit{must} transmit the rating. Hence, as to the transmission, there is clear state compulsion.

To evaluate the constitutionality of compelling transmission, one must evaluate the ratings system. To see this, ask what the state interest in compelling transmission might be. As I point out above,\textsuperscript{188} the government will have to show that parents will want to use the ratings to control their children's viewing to justify forcing broadcasters and cable systems to transmit the ratings. This leads us directly back into the analysis of justifications from Stage One of the V-chip ratings system.

\textsuperscript{187} \textit{See Chemerinsky, supra} note 29, \textsection 7.4.3.
\textsuperscript{188} \textit{See supra} notes 92-133 and accompanying text.
CONCLUSION

In Stage One, the industry’s decision to adopt a ratings system likely should be regarded as state action. In addition, the Court should also view the particular age-based mixed with content-based system that the industry was pressured to adopt as state action. In contrast, the rating assigned to any particular show should be regarded as private action. In Stage Three the state action calculus may change. The Act’s requirement that ratings be transmitted probably establishes state action across the board.

The V-chip ratings system may well be constitutional under the First Amendment. The litigant bearing the burden of proof of showing or negating a chill from the ratings system should probably lose at this point. Also, the government may be able to justify the V-chip ratings system, even under strict scrutiny, as supporting parental authority to control their children’s diet of television. All of these conclusions are tentative. Further government actions and industry reactions could change any of the conclusions.
APPENDIX 1

In this appendix we will derive the results for two broadcasters competing with a rectangular viewer distribution and assumption A1 regarding V-chip use.

\textit{Case i:} \((2(1-p)v < 1).\) In this case both broadcasters locate at \(v\) and earn \(\frac{1}{2}\) of the available viewers. \textit{Discussion:} Will either broadcaster move from \(v\)? Consider an extremely small move to the left of \(v\). If \(B_1\) were to do that, \(B_1\) would earn all of the viewers between \(v\) and 1 who did \textit{not} use the V-chip, which is \((1-p)v\), and \(B_2\) would get the rest, \((1-v)\). Because \((1-p)v < \frac{1}{2}\), it would not pay \(B_1\) to make such a move. Any other move would garner \(B_1\) even fewer viewers, so we know that \(B_1\) will choose to remain at \(v\), paired with \(B_2\).

\textit{Case ii:} \((2(1-p)v > 1).\) There are two subcases. If \(v < p+0.5\) then there is no equilibrium. If \(v > p+0.5\), then there is an equilibrium with both broadcasters locating at 0.5.

\textit{Discussion:} If \(2(1-p)v > 1\), then there can be no equilibrium with both broadcasters at \(v\). If they were both located there, each would get fifty percent of the available viewers. Then one, say \(B_1\), would move slightly to the left, and garner \((1-p)v\), which by assumption is greater than \(\frac{1}{2}\). \(B_2\) will then get \((1-v)\), which is less than \(\frac{1}{2}\). Then \(B_2\) will move to either pair with \(B_1\) and earn \((1-p)/2\), or leapfrog \(B_1\) and earn slightly less than \((1-p)v\). Because \(v > 0.5\), it clearly pays to leapfrog. But then the same will be true of \(B_1\) when deciding whether or not to leapfrog \(B_2\). This leapfrogging will continue all the way to 0.5, where it will stop, and 0.5 will be paired at local equilibrium. This means that neither will have any incentive to move a small distance away from 0.5 as long as it thinks the other broadcaster will remain at 0.5. At this point, will either broadcaster have an incentive to "jump" over to \(v\)? By doing so, \(B_1\) (or \(B_2\)) could garner \(1-(0.5+v)/2\), while \(B_2\) would get \((1-p)(0.5+v)/2\). \(B_1\) will make this jump if and only if \(1-(0.5+v)/2 > (1-p)(0.5+v)/2\). This reduces to \(v < p+0.5\). However, if \(v < p+0.5\) and \(B_1\) jumps to \(v\), then \(B_2\) will slide over and crowd \(B_1\). Leapfrogging will ensue, and no equilibrium can exist.
APPENDIX 2

This appendix contains a demonstration of the results in the case with two broadcasters, rectangular distribution, and assumption A2 regarding V-chip use.

If \(v\) is to the left of 0.5, then the equilibrium exists and is identical to the case without the V-chip. Both broadcasters locate at 0.5.

**FIGURE 11**

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B1&B2

0  v  0.5  1
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If \(v\) is to the right of 0.5, then we cannot get an equilibrium pair at \(v\). We can get an equilibrium at \(e = (1/2)[v+(1-p)(1-v)]\) if \(e > (1-p)(1-v)\). **Discussion:** Assume that we start with a pair of broadcasters at \(v\). Both broadcasters will be getting fifty percent of the available viewers. If \(B_1\) moves slightly to the left, he gets (almost) \(v\) viewers. (Remember that those viewers whose ideal points are to the left of \(v\) do not use the V-chip with assumption A2.) This is better for \(B_1\), as \(v > 1/2\). Now, \(B_2\) will leapfrog over \(B_1\) and this will continue until they reach \(e = (v-e)+(1-p)(1-v)\), which is where the right hand payoff just equals the left hand payoff. This simplifies to \(e = (1/2)[v+(1-p)(1-v)]\). Will either broadcaster have the incentive to jump to \(v\)? If \(B_1\) were to do so, it would garner \((v-(e-v)/2)+(1-v)\) viewers. For a jump to be appealing to \(B_1\), that quantity must be greater than \((1/2)(v+(1-p)(1-v))\). This simplifies to \(e < (1-p)(1-v)\). Under these circumstances, \(B_1\) will jump to \(v\), and then \(B_2\) will slide over and crowd \(B_1\), and leapfrogging will ensue. Under A2, the percentage of viewers who use the V-chip is not a function of \(v\). Hence, the government can ensure that an equilibrium will exist by making \(v\) large enough. This entails rating more programs violent.

Now, we can deduce that \(e\) is less than \(1/2\). To see this, note that \(e\) is exactly equal to \(1/2\) when \(p = 0\). When \(p\) is greater than zero, \((1-p)\) is less than one, so the expression in the brackets falls to less than one. One half times something less than one (but greater than zero) is less than \(1/2\). Hence, \(e < 1/2\). This means that the equilibrium, where it exists, will be more violent than the equilibrium without the V-chip. This slightly counterintuitive result makes sense only because of the behavior of viewers. Because the viewers...
on the right end of the violence spectrum are the only ones to use the V-chip, the broadcasters care less about the preferences of those who like non-violent programs.
APPENDIX 3

This appendix contains a demonstration that given three broadcasters, rectangular viewer distribution, and assumption A1 on V-chip use, there is no equilibrium in the configuration represented by Figure 101. In Figure 101, B2 and B3 each get \((1/2)(1-p)(v+x)/2\), and B1 gets \(1-(v+x)/2\). In order for Figure 101 to be an equilibrium, six conditions would need to be satisfied:

1. \((1-p)/3 < 1-(v+x)/2\). This condition prevents B1 from moving left and duplicating x, the position of B2 and B3.
2R. \((1-p)(1-x) < 1-(v+x)/2\). This condition prevents B1 from moving left and crowding B2 and B3 on the right hand side.
2L. \((1-p)x < 1-(v+x)/2\). This condition prevents B1 from moving right and crowding B2 and B3 on the left hand side.
3L. \((1-p)(1-(v+x)/2) < (1-p)(v+x)/4\). This condition prevents B2 (or B3) from sliding over and crowding B1 on the left hand side.
3R, \((1-v) < (1-p)(v+x)/4\). This condition prevents B2 (or B3) from sliding over and crowding B1 on the right hand side.
4. \((1/2)(1-(v+x)/2) < (1-p)(v+x)/4\). This condition prevents B2 (or B3) from moving over and duplicating B1.

These conditions are mutually inconsistent. First, subtract equation 2L from 2R to obtain

\[(1-p)(1-x)-(1-p)x < 0.\]

This simplifies to:

\[x > \frac{1}{2}.\]

Now, subtract equation 1 from equation 2R and obtain:

\[(1-p)/3-(1-p)(1-x) < 0.\]

This simplifies to:

\[x < 2/3.\]

Now, subtract equation 4 from equation 3L and obtain:

\[(1/2-p)(1-(v+x)/2) < 0.\]

Because \(v+x < 2\), we know \((1-(v+x)/2) > 0\), which means \((1/2-p) < 0\), or

\[p > \frac{1}{2}.\]

Now, subtract equation 3R from equation 4 and obtain:

\[(1/2)(1-(v+x)/2)-(1-v) < 0.\]

This simplifies to \(v > (2+v)/3.\) Since \(x > \frac{1}{2}\) (our first result, above), we know

\[v > 5/6.\]

But now equation 2R is impossible.
APPENDIX 4

Three broadcasters, rectangular viewer distribution, assumption (A2) on V-Chip use: To see that there are no equilibria, first consider whether the three broadcasters can cluster on \(v\), much as in Figure 103. Under this circumstance, each broadcaster has an incentive to move to the "long" side (the left) and crowd the other two. Leapfrogging ensues.

Can there be an equilibrium at \(e \neq v\), similar to the case with two broadcasters? No. To see this, realize that when all three broadcasters are clustered at \(e\), where \(v > 0.5\) and \(e < v\), each broadcaster earns \(1/3[(1-p)(1-v)+v]\). For \(e\) to be an equilibrium, two conditions must be satisfied:

(i) \(e < 1/3[(1-p)(1-v)+v]\). This condition removes the incentive for the broadcasters to move left slightly and crowd the other two.

(ii) \((v-e)+(1-p)(1-v) < 1/3[(1-p)(1-v)+v]\). This condition removes the incentive for the broadcasters to move right slightly and crowd the other two.

Now, add (i) and (ii) together to obtain:

\[ v+(1-p)(1-v) < 2/3[(1-p)(1-v)+v]. \]

This reduces to \(v+(1-p)(1-v) < 0\). Since \(v > 0\) and \(p > 0\), this is impossible. Hence, there is no clustered equilibrium.

There also cannot be any equilibrium in the configuration in Figure 101. For that to be an equilibrium, at least the following two conditions must be satisfied:

(i) \(x < (1/2)(v+x)/2\). This condition removes the incentive for \(B_2\) or \(B_3\) to move to the left slightly and crowd the other.

(ii) \(x < 1-(v+x)/2\). This condition removes the incentive for \(B_1\) to slide over and crowd \(B_2\) and \(B_3\) on the left.

The only way for these two conditions to hold simultaneously is for \(x < 0\), which is impossible. Hence, there is no equilibrium.
APPENDIX 5

What if $0.25 < v < 0.75$? Then the situation looks as it does in Figure 14.

**FIGURE 14**

I have divided the range into four parts, $d_1$, $d_2$, $d_3$ and $d_4$. The only possible equilibria would have two broadcasters paired on either end, and we have labeled the two positions $e_1$ and $e_2$. Now, the number of viewers garnered by $B_1$ and $B_2$ in the first two ranges (and split equally between them) are:

- $d_1$: $e_1$
- $d_2$: $(v-e_1)+(1-p)((e_1+e_2)/2-v)$.

The number of viewers garnered by $B_3$ and $B_4$ (and split equally between them) in the final two zones are:

- $d_3$: $(e_2-1/2(e_1+e_2))+p(1/2(e_1+e_2))$
- $d_4$: $1-e_2$.

In order for this to be an equilibrium, three conditions must be satisfied.

1. $e_1 = (1-p)[1/2(e_1+e_2)-v]$. This removes the incentive for either $B_1$ or $B_2$ to move slightly to the right or left and crowd the other one.

2. $e_2-1/2(e_1+e_2)+p(1/2(e_1+e_2)-v) = 1-e_2$. This removes the incentive for either $B_3$ or $B_4$ to move slightly to the left or right and crowd the other.

3. $v-e_1+(1-p)[1/2(e_1+e_2)-v] = e_2-1/2(e_1+e_2)+p(1/2(e_1+e_2)-v)$. This removes the incentive for either $B_1$ or $B_2$ to move to the right and crowd $B_3$ and $B_4$ on the left hand side.

But (3) is true $\iff$ either $p=0$ or $1/2(e_1+e_2) = v$. Assume that $p > 0$. Then from conditions (1) and (2) we have $1/2(e_1+e_2) = v = 0.5$. This, in turn, implies $e_1 = 0.25$, and $e_2 = 0.75$.

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189 The second term in this expression represents all those viewers between $v$ and $1/2(e_1+e_2)$ who used the V-chip and turned to the offering at $e_2$, the only available viewing for them.
What happens if we greatly increase the number of settings of \( v \)? The answer to this question, just as the answer to the question about what happens with only one setting of \( v \), is “it depends.” To get a feeling for a possible change, this appendix sets forth a framework of analysis of what may happen if the \( v \) rating is continuous over the range \([0,1]\). In other words, if a show could be rated at any point on this range, and a consumer could set \( v \) at any point, how would the system work? For example, a show might be rated \( 0.361 \), and a consumer might set \( v \) at \( 0.45 \). In this case, the V-chip would filter out the show. Or, a show might be rated \( 0.572 \), and then pass through the V-chip set at \( 0.45 \).

How would the market be affected by such a system? Let us assume, again, that viewer ideal points are uniformly distributed on \([0,1]\), that viewers watch the closest program available, that broadcasters are profit maximizers, etc. We must still make some assumption about how viewers will choose to set \( v \). Let us make a particularly simple assumption that makes the analysis tractable. Viewers choose \( v \) at slightly less than their ideal points. This says, in essence, that the parents are willing to let their kids watch anything, as long as it is not more violent than the kids’ ideal type of programming. Alternatively, if kids and parents ideal points are identical, then the parents are willing to let the kids watch anything as long as it is not more violent than the parents’ ideal type of programming.

If there are two broadcasters, there is no equilibrium. To see this, first note that there can be no equilibrium where the two broadcasters are paired. Assume that \( B_1 \) and \( B_2 \) are located at the same point, sharing equally in the available viewers. Then each of the broadcasters has an incentive to move slightly to the left and garner almost all of the viewers that the two broadcasters were sharing. (Note that moving right slightly would be counterproductive, for no one to the right of a broadcaster can get the signal.) If \( B_1 \) were to do so, then \( B_2 \) would have an incentive to leapfrog over \( B_1 \). Leapfrogging would ensue until one broadcaster would return to \( 1 \). At that point the other would slide over to slightly less than \( 1 \) and garner almost all of the viewers. Leapfrogging ensues.

Similarly, no arrangement where the two broadcasters are any significant space apart can be an equilibrium. The broadcaster on the left would slide over and crowd the broadcaster that was further to the right, and garner almost all of the viewers. Leapfrogging ensues.
If there are more than two broadcasters, there is no equilibrium. To see this, consider any market with $n$ broadcasters that is claimed to be in equilibrium. Consider the two broadcasters who are located closest to 1. They cannot be located at the same point, for one would move slightly to the left. Leapfrogging would ensue. They cannot be located any appreciable distance apart, for then the broadcaster closest to 1 would be vulnerable to crowding (on the left) by the broadcaster that is the next closest to 1. Leapfrogging ensues.
APPENDIX 7

An alternative model of regulation might posit that under the pre-V-chip regulatory regime there was, in essence, a constraint against showing really violent matter on broadcast television. This could be modeled as a barrier, say at 0.6, preventing any programming between 0 and 0.5. Then the broadcasters, restricted to [.6,1], would regard demand as a mass point at 0.5, equal in magnitude to all of the viewers located (uniformly) on [.6,1]. Under these circumstances, what would an equilibrium look like without a V-chip? With two broadcasters, both locate at 0.6. With four broadcasters, there is no equilibrium.
APPENDIX 8

There are only two genuine possible equilibria when \( v > 0.75 \), and both fail. First, we could have the same arrangement—two broadcasters at 0.25 and two at 0.75—as we had when \( v < 0.75 \). The difficulty is that the two broadcasters at 0.75 would each garner less than twenty-five percent of the available viewers, while the broadcasters at 0.25 would each get twenty-five percent of the viewers. The reason for this is that the two broadcasters will be broadcasting "violent" programming, and the viewers to the right of \( v \) who have activated the V-chip will not get the broadcasters' programs. In contrast, the broadcasters at 0.25 will be dealing with a universe of viewers (those in \([0, 0.5]\)) who have not activated the V-chip. As a consequence, each of the broadcasters at 0.75 will have an incentive to slide over and crowd the two broadcasters at 0.25, taking twenty-five percent of the audience either on the right or left of 0.25.

The other possible equilibrium is that depicted in Figure 13. In order for this to be an equilibrium, each of the four broadcasters must earn twenty-five percent of the audience. Now \( B_1 \) and \( B_2 \) each get \( \frac{1}{2}((e+v)/2) \), while \( B_2 \) and \( B_4 \) each get \( \frac{1}{2}(1-(e+v)/2) \). Equating these two, we derive \( e+v = 1 \). Since \( v > 0.75 \) we know \( e < 0.25 \). But this cannot be an equilibrium, for \( v-e > \frac{1}{2} \). If, say, \( B_3 \) were to slide over and crowd \( B_1 \) and \( B_2 \) on the interior, \( B_3 \) would get \( \frac{1}{2}(v-e) \), which we know is greater than \( 1/4 \). Hence, \( B_3 \) will not remain at \( v \).
APPENDIX 9

In such an equilibrium three conditions must be satisfied:

1. \((\frac{1}{2})(v+(1-p)(1-v)) \geq e\). This prevents either broadcaster from having an incentive to move \(e\) to the left.

2. \((\frac{1}{2})(v+(1-p)(1-v)) \geq (v-e)+(1-p)(1-v)\). This prevents either broadcaster from having an incentive to move \(e\) to the right.

3. \((\frac{1}{2})(v+(1-p)(1-v)) \geq (1-v)+(\frac{1}{2})(v-e)\). This prevents either broadcaster from having an incentive to move to \(v\).

By rearranging (2) we can get \((-v/2)+e \geq (\frac{1}{2})(1-p)(1-v)\), or \(e \geq (\frac{1}{2})(v+(1-p)(1-v))\). Putting this together with (1), we have \((\frac{1}{2})(v+(1-p)(1-v)) = e\).

Next, rearrange (3) to get \(e > (1-v)(1-p)\).