

Before The  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

IN THE MATTER OF

Nondiscrimination in the Distribution of  
Interactive Television Services  
Over Cable

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}  
} CS Docket No. 01-7  
}  
}

TO: The Commission

**COMMENTS OF  
PUBLIC BROADCASTING SERVICE  
AND THE ASSOCIATION OF AMERICA'S PUBLIC TELEVISION STATIONS**

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## **SUMMARY**

Interactive television (“ITV”) promises to transform a television-viewing experience into an interactive pursuit. Through interactive quizzes, rotating photographs, and real-time interaction with other viewers, viewers will be empowered to delve deeper into areas of interest mentioned during a television program. ITV will enable broadcasters to further educate and engage viewers with compelling interactive content. Public television is a leader in the field of interactive television because this opportunity to educate the American public through interactive programming advances its mission. Public television is uniquely interested in and positioned to provide educational program-related interactive content to the American public.

As cable will likely provide the most suitable platform for delivering ITV to the public, it is important that the Commission continue to monitor developments within the cable industry related to the transmission of ITV. A key objective should be to minimize the likelihood of anticompetitive behavior, which would ultimately hinder or even prevent noncommercial content providers from delivering educational ITV content to the public. Further, the Commission should clarify that the “must carry” rules encompass public televisions’ ITV triggers and content, so the American public can access the rich educational ITV content offered by public television.

Anticompetitive behavior might result, for instance, from the vertical integration of cable companies with certain ITV content providers. Such vertical integration might cause the cable companies to prefer their affiliated content providers or even to impose requirements that non-affiliates would be unable to meet.

Anticompetitive behavior also might result from affiliations between cable companies and companies that provide ITV technology. In such a case, a cable company might deem the technology company with which it is affiliated a “preferred provider” and give preferential treatment to content providers that utilize the preferred provider’s infrastructure. A cable company might designate an affiliated technology company as the “default platform” or “default hosting platform,” and refuse to carry content that does not use the platform of the affiliated technology company. This would enable the technology company to impose exorbitant fees on non-affiliated content providers even in cases where the content provider could utilize a different technology company for a more reasonable fee or could perform the technological work in-house.

At this early stage of the development of ITV, public television, along with the rest of the industry, continues to discover new facts and issues related to ITV almost on a daily basis. Therefore, other than the recommendation that the Commission clarify that “must carry” rules encompass public televisions’ ITV triggers and content, it would be premature to provide the Commission with specific policy recommendations at this point. We commend the Commission for its actions to date related to ITV, and urge the Commission to continue monitoring the ongoing developments within the ITV market. Depending on future developments within the ITV market, public television believes that it may become appropriate for the Commission to issue a Noticed of Proposed Rulemaking regarding the ITV market.

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Public Broadcasting Service ("PBS") and the Association of America's Public Television Stations ("APTS") submit these comments in response to the Commission's Notice of Inquiry, release date January 18, 2001, in the above-captioned proceeding. PBS and APTS are non-profit membership organizations whose members are licensees of virtually all of the nation's public television stations. PBS provides, among other things, national program distribution and other program-related services to the nation's public television stations and the general public. APTS serves as the national representative of these stations, presenting their views and participating in proceedings before Congress, executive and administrative agencies, and in other activities.

**I. Public Television's Leading Role in the Development of Interactive Television (ITV)**

**A. Public Television's Use of ITV to Further its Mission**

Since its inception, public television has had educating the American public as its fundamental goal. It is a leader in the movement to provide the benefits of new technology to the American television-viewing public. Public television's pioneering efforts in convergence media, particularly in the field of interactive television, are widely acknowledged in the industry.

As America experiences the infancy of the digital television era, an ever-growing number of alternative reception platforms for integrated video and internet-based entertainment and information are available to our television viewers at the local

level. Public television is, and will continue to be, intensely focused on reaching our viewers wherever they are, using any necessary distribution platforms. In various media, including traditional broadcast, on-line, wireless and interactive television, public television is establishing a presence on all relevant platforms to promote the greatest accessibility to viewers of our unique content bank.

Public television's pioneering position within the ITV marketplace is the direct result of our willingness to devote significant time and energy to creating innovative applications for the latest technology. Public television's objective is to further enrich the educational experience of our viewers. It is critical that our exciting, educational ITV content reach as many members of the American public as possible. We concur that the Commission should begin to analyze the rapidly evolving ITV market and the range of factors that will impact the public's exposure to and experience with interactive television.

#### B. ITV Landmark Events for PBS

Since 1997, PBS has played a significant role in the ITV marketplace. In 1997, PBS, on behalf of its public television members, joined with NBC, Microsoft Corporation, Liberate Technologies, and other prominent technology companies to found the Advanced Television Enhancement Forum (ATVEF), a forum created to encourage broad and open industry-wide adoption of content authoring and display specifications. The founding companies' goal is to facilitate cross-platform interoperability for interactive television. In the absence of such cross-platform interoperability, content companies would have been forced to customize their interactive programming to meet the specifications of individual technologies/platforms, thereby stifling the content-creation process and unduly delaying widespread viewer access to ITV services.

In 1998, PBS datacast the first digital terrestrial broadcast of an interactive program in the United States, *Frank Lloyd Wright*. Following the success of *Frank Lloyd Wright*, in 2000 and 2001, PBS worked with key middleware platforms and multi-system operators (MSOs) to deploy "walled garden" content for cable-controlled ITV portals, or closed environments, in a number of trials throughout the country. In the past year alone, PBS has developed approximately six national and three local walled garden ITV sites, as well as one cutting-edge interactive TV kids' game. On March 27, 2001, PBS will broadcast the first ATVEF-compliant interactive television series over digital terrestrial television, enhanced ***Scientific American Frontiers***.

Moreover, the Interactive Television Project, a collaboration between the University of Wisconsin-Cooperative Extension Electronic Publishing Department and Wisconsin Public Television, has been exploring and developing ITV programming.<sup>1</sup> For instance, on November 7, 2000, Wisconsin Public TV

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<sup>1</sup> See <http://itv.wpt.org>.

broadcast interactive enhancements of state election results for WebTV users and, in coordination with the *The Newshour with Jim Lehrer*, afforded viewers the opportunity to track major national races as well. Wisconsin Public TV also has enhanced a variety of local programs, such as *Wisconsin Stories*, a program on the history of Wisconsin, and *Whole Child*, a series on developmental education for children.<sup>2</sup> Because of its expertise in this area, Wisconsin Public TV has been designated as a training site for the development of ITV content based on the Microsoft TV Platform.<sup>3</sup>

In addition, PBS recently was elected to the Board of the Advanced Television Forum (ATV Forum). As a member of the ATV Forum's Board, PBS will represent the interests of public television in furthering the ATV Forum's mission of accelerating the market adoption of interactive TV by addressing issues related to ITV standards, ITV business models, ITV policy debates, and cross-industry collaboration models, particularly those involving the cable industry.

### C. Public Television's ITV Content

Public television will continue to make significant contributions to a viewer's experience with interactive television. Using ITV technology, PBS will provide viewers with compelling educational, cultural and mission-related interactive content as an overlay to a broadcast ("enhanced TV") or on destination sites within MSOs' ITV portals ("walled gardens"). Each public television station plays a critical role in presenting viewers with localized program enhancements that connect national issues being discussed in the various programs to content that is more personalized and localized for the viewer. For instance, as part of one of the PBS-sponsored ITV trials, Rocky Mountain PBS developed a walled garden site based upon its local program, *Spirit of Colorado*.

Enabling viewers to simply "click" during a broadcast and explore timed, program-synchronous material that expands or personalizes specific issues addressed during the broadcast is consistent with and significantly advances public television's core mission to educate the American public. While watching a program, public television viewers will be able to "zoom in" on different sections of a photograph, rotate an image, take a quiz or participate in a poll and receive instant results, and in each case learn about a topic of interest to the viewer.<sup>4</sup>

For children, PBS is creating enhancements that reinforce the lessons or themes of the program and allow each child to interactively apply the skills or knowledge taught in a particular program. Public television is interested in providing both in-home and in-school delivery of ITV content.

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<sup>2</sup> See <http://itv.wpt.org/news>.

<sup>3</sup> *Id.*

<sup>4</sup> It is worth noting that viewers will be able to explore the ITV features simply by using a technological tool with which most viewers already are familiar -- the remote control.

Public television continues to explore new opportunities related to ITV content. For instance, we are considering strategic alliances that would permit the integration and layering of content offerings within the interactive program guides and video-on-demand services, which are the current deployment priorities for the cable industry. Public television also is investigating opportunities to integrate into its content various ITV utility applications controlled by the cable operator, such as email and chat. PBS is also analyzing other potential ITV services, such as the use of Personal Video Recorders (PVRs) to feed metadata around the program content for DVD-like interactivity for recorded broadcast programs.

#### D. Distribution Platforms for ITV

**Digital Cable.** Public broadcasters agree that the cable television industry is poised to be the dominant carrier of ITV in the near future. Cable providers maintain the most widely accessible multi-media pipe into households, with more than two-thirds of the households in the United States receiving television through cable.<sup>5</sup> Cable providers likely will remain interested in carrying ITV to viewers, as interactive television provides them with a strong tool that they can use to promote customer retention, reduce churn and compete against the satellite industry for subscribers.

**Digital Terrestrial Television (DTV).** Public television is aggressively building an infrastructure for digital terrestrial television transmission, through extensive investments in technology for data scheduling and insertion (the components for ITV). In addition, public television is working with digital terrestrial receiver companies that have existing ITV capabilities. Currently, only about 21 percent of United States households watch non-cable terrestrial analog television,<sup>6</sup> and an even smaller percentage watch television using digital terrestrial receivers.<sup>7</sup> At least for the foreseeable future, digital terrestrial broadcast alone is not a sustainable distribution platform for ITV.<sup>8</sup>

**Digital Broadcast Satellite (DBS).** The digital broadcast satellite (“DBS”) industry currently holds a 15 percent market share, and this percentage continues to increase.<sup>9</sup> While this upward trend suggests that DBS might provide a viable alternative to cable and broadcast, the deployment of proprietary middleware platforms such as OpenTV and Wink has precluded public

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<sup>5</sup> *DMA Cable Plus ADS, Total ADS, and Satellite Universe Estimates*, Nielsen Media Research, November 2000.

<sup>6</sup> *Id.*

<sup>7</sup> *Home Technology Report*, Nielsen Media Research, 3<sup>rd</sup> Quarter 2000 (only 9.6% of adults surveyed answered “Yes” to the question, “Does anyone in your household own or rent a digital or high definition television set?”).

<sup>8</sup> The Commission did not mention digital terrestrial television as a viable ITV platform that would be competitive with digital cable in its Notice of Inquiry.

<sup>9</sup> *Digital DBS Systems’ Subscribers: From Day One to Today*, DBS Investor, February 2001, Vol. 6. No. 2, at 4.

television's active participation in DBS platform ITV. Moreover, until local-into-local DBS issues are resolved, public television's unique ability to provide for integrated local/national enhancements is marginalized.

## **II. Definition of ITV**

Public television encourages the Commission to broaden the definition of ITV to encompass the full spectrum of deployable, interactive applications that currently are being developed. Specifically, public television would include the following applications in the definition of ITV:

1. Enhanced TV (eTV);
2. Walled Garden (Virtual Channels);
3. Video-on-Demand (VOD);
4. Interactive Electronic Programming Guides (IPG);
5. Personal Video Recorders (PVR); and
6. Utility functions including email, chat, calendar, e-wallet, search, address book, program reminders, and tickers.

## **III. Potential for Discrimination**

As addressed above, the cable industry is uniquely positioned to deliver ITV to consumers. Given the pervasive cable presence in television markets, cable providers are well positioned to heavily commercialize the interactive television content available to the American public. The risk that this innovative, interactive advance in television could become overly commercial can be avoided by protecting public television's ability to reach the American public with noncommercial educational and cultural ITV content.

### **A. Vertical Integration with ITV Content Providers**

ITV content providers that are affiliated with cable platform companies are in a position to receive preferential treatment from the cable platform companies. Examples of the potential preferences that might be granted by cable platform companies to their ITV content affiliates include: (1) preferential positioning of the affiliated ITV content provider on electronic on-screen program guides used by the viewer; (2) steering viewers (via on-screen guides and other marketing efforts) to affiliated ITV content providers' advertising sites and portals; (3) creating preferences for the affiliated provider embedded in the technological infrastructure, such as in local caching, on downstream or in return paths (including granting preferential bandwidth allocations); and (4) favoring the affiliated ITV content provider in granting access to promotional opportunities

and/or real estate on aggregate pages of the ITV portal or within the interactive programming guide.

In addition, in extreme cases, cable platform companies could take even stronger steps, including: (1) denying access to the cable platform (blocking ATVEF triggers or exclusion from “walled garden” shelf space in the ITV portal) to non-affiliated ITV content providers; (2) using pricing and/or revenue share formulas that effectively prevent access to the cable platform to non-affiliated ITV content providers; (3) excluding non-affiliated ITV content providers from integration of utility functions provided by the cable platform company, such as cable company hosted chat areas, access to the calendar; ability to send/receive viewer email; and (4) denying the non-affiliated ITV content provider access to research on viewers.

#### B. Vertical Integration with ITV Technology Companies (“Middlemen”)

To the extent a cable provider has an investment stake in a technology company that is an ITV service provider, the cable provider might also grant preferences to the affiliated ITV service provider. Examples of the type of preferences that might be granted include: (1) creating “preferred provider” preferences whereby ITV content providers that utilize the technology infrastructure of the affiliated technology company receive more favorable pricing, bandwidth allocation or service visibility from the cable provider; and (2) designating the affiliated technology company as the required “default platform” for a particular application or as the required “default hosting platform” for the content. In this case, the affiliated technology company would be in the position to charge higher than fair market prices for technology licensing fees, service fees, or to impose restrictions on content providers, even if the content provider is able to perform the affiliated technology company’s function to the specification required, or with less expensive outside assistance.

#### C. Other Requirements

Cable providers might also require authors to create cross-platform content, which would impose an additional cost or impose strict user-interface guidelines within the closed environment of walled gardens. Driven by the potential to make money from the ITV viewer, the cable provider might also package advertising and promotional commercial messages around ITV enhancements of content, which would be unacceptable for noncommercial public television content.

### **IV. Ensuring Viewer Access to Public Television’s ITV Triggers and Content**

As the Commission stated in its Notice of Inquiry, ITV is “a rapidly-developing service that could provide tremendous value to American consumers.”<sup>10</sup> Public television is devoting significant resources to creating interactive content and researching viewer reaction. ITV content will significantly enhance the television viewer’s experience by transforming television viewing from a passive diversion into an active pursuit, providing each viewer with control over his or her television viewing experience.

It is important that cable operators provide access to viewers of all public television ITV triggers and content in furtherance of Congress’ goal of ensuring the distribution of unique noncommercial, educational programming to audiences throughout the country.<sup>11</sup> We therefore recommend that the Commission clarify that “must carry” rules encompass public televisions’ ITV triggers and content. This is consistent with Congress’ determination that “it is in the public interest for the Federal Government to ensure that all citizens of the United States have access to public telecommunication services through all appropriate available telecommunications distribution technologies,”<sup>12</sup> as well as with Congress’ stated intention to “encourage the growth and development of nonbroadcast telecommunications technologies for the delivery of public telecommunications services.”<sup>13</sup>

## **CONCLUSION**

ITV will provide tremendous value to the American public, providing each viewer with the power to turn television viewing from a passive into an interactive experience. Consistent with its mission, public broadcasting is in the forefront of the movement to create compelling, educational ITV content for the viewer. At this early stage of the development of ITV, public television, along with the rest of the industry, continues to discover new facts and issues related to ITV almost on a daily basis. Other than recommending that the Commission clarify that “must carry” rules encompass public televisions’ ITV triggers and content, it would be premature to provide the Commission with specific policy recommendations at this point. We do, however, commend the Commission for its actions to date related to ITV, and urge the Commission to continue monitoring the ongoing developments within the ITV market. Depending on future developments within the ITV market, public television believes that it may become appropriate for the Commission to issue a Noticed of Proposed Rulemaking regarding the ITV market.

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<sup>10</sup> *Nondiscrimination in the Distribution of Interactive Television Services Over Cable*, COMMISSION 01-15, CS Docket No. 01-7 (rel. January 18, 2001).

<sup>11</sup> See 1992 Cable Act, Section 2(a)(7).

<sup>12</sup> Public Telecommunications Facilities Act of 1992, 47 U.S.C. § 396(a)(9).

<sup>13</sup> 47 U.S.C. § 396(a)(2).

Respectfully submitted,

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