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The economics of online television: Industry development, aggregation, and "TV Everywhere" ☆

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ABSTRACT

Although still dominated by standard television, the online TV industry is growing rapidly. Entrants employ a range of business models, and we identify a prevalent tendency for leading providers to aggregate programming from a variety of different content owners. We focus on one form of content aggregation by multi-channel programming distributors (MPVDs) widely known as "TV Everywhere (TVE)." Following a brief taxonomy of TVE systems, we develop an economic model to show how this "free-with-authentication" (of MVPD subscribership) bundling practice can be explained as a price discrimination device intended to slow MVPD disconnections. We show that TVE bundling could also deter entry into the online TV market. We discuss the potential roles of horizontal and vertical integration of MVPDs and ISPs in online TV industry development, again focusing on TVE, and conclude with policy implications.

1. Introduction

Since the mid-2000s, as Internet broadband adoption has expanded from a third to two thirds of U.S households and transmission speeds have grown dramatically, online streaming and downloading of TV shows and other video content has blossomed. In this article, we explore the online video industry, focusing on professionally produced television programming. Our purpose is to provide an economic framework for addressing questions about online television's economic future, especially from a policy perspective.

In the first part of the article (Section 2), we discuss economic development of online TV: the emergence of its major players and business models, and contrasts between online and offline TV revenues and viewing. We also offer economic explanations for the prevalent tendency of leading online video providers to aggregate programming content from a variety of different owners.

In the second part (Section 3), we focus on one aspect of the policy debate: the offline/online bundling practice of MVPDs widely known as "TV Everywhere" ("TVE"). TVE is an umbrella model in which a cable operator or other MVPD offers an online aggregation of television programming for free, but only with "authentication" that the online user is also an MVPD

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2005:	***YouTube*** launched; broadcast TV programs were posted for free by users
	iTunes offers TV programs for sale as downloads
2006:	***Amazon*** debuts "Unbox" (digital rental/purchase of TV shows/movies
2007:	Networks issue "takedown" notices to ***YouTube***; ***Viacom*** law suit against ***YouTube*** for copyright infringement. Networks win.
	Netflix launches online streaming of TV shows/movies
2008:	***Fox*** and ***NBC*** launch ***Hulu.com***.
	CBS launches ***TV.com***.
2009:	ABC joins ***Hulu.com***.
2010:	***Comcast*** and a few other MVPDs begin launching TV Everywhere services.
2011:	***Amazon Prime*** program includes online streaming of TV shows and movies in addition to free ***Amazon*** product shipping as bundle
2012:	***YouTube*** finances and distributes its own professional content with a variety of niche partners.

Fig. 1. Online television timeline.

subscriber. It has been alleged that TVE is an anticompetitive device intended to preserve the MVPD's offline market power, or to leverage that market power in order to dominate the online TV market (Scott, 2010). Among the main research questions we ask: what are the economic motives of TVE bundling? Is this practice likely to have anticompetitive effects?

After a brief taxonomy of TVE development by the 25 largest MVPDs and a review of similar bundling by newspapers and magazines, we develop a simple economic model that explains TVE as a price discrimination device by which MVPDs prevent offline "cord cutting." We show that in some plausible circumstances, TVE could also limit entry into the online TV industry, although our model does not itself involve anticompetitive intent. Finally, we discuss the potential roles of horizontal and vertical integration of MVPDs and ISPs, key aspects of the online video policy debate. Although TVE is only one part of the policy concerns about online TV development, it offers a useful window onto the broader range of those issues.

2. The online television industry

2.1. Historical development and programming content

Some watershed events in the history of online commercial TV program distribution are shown in Fig. 1. Although the broader online video industry had its beginnings in the mid-1990s, few if any commercial TV programs were made available before the mid-2000s. With little fanfare, iTunes began offering some recent TV series for direct payment download (usually $1.99/episode) in 2005. Phenomenal consumer response, however, followed YouTube's launch in that year, and full episodes of major network series programs were soon illegally posted by users. After an initial period of tolerance, the networks and program suppliers issued "takedown" orders under the Digital Millennium Copyright Act, and lawsuits against YouTube followed. It was not until 2008 and 2009 that NBC and Fox (later joined by ABC) launched Hulu.com and CBS started tv.com (later CBS Interactive),[1] primarily as online outlets for some of their regular series programs. Then since 2010, amid rapid industry growth, a number of other players have entered the online television market, notably the launch of TVE services by major cable operators and other MVPDs.

Fig. 2 summarizes characteristics of several significant providers of online commercial television programming as of early 2013.[2] A variety of revenue models and levels of program aggregation have emerged, topics to which we return in Section 2.3. Note also from Fig. 2 that there is a broader market of commercial online video suppliers, mostly offering movies and often original programs as well as network TV series. Most of the leading firms are the same; thus our analysis of online TV may often apply to the larger online video industry.

2.2. Revenue and viewing

Both revenue and viewing of online TV providers are dwarfed by offline multichannel and broadcast TV, but online is growing rapidly.

Online TV program revenues from advertising, subscriptions, and VOD accounted for less than 2% of total TV industry revenues in 2010 (Waterman, Sherman, & Ji, 2012, p. 15), but this proportion has clearly grown. One research firm reported a similar ratio, 2.35%, of all online video advertising as a portion of total offline TV plus online video advertising in 2010, and this ratio increased to 4.3% in 2012 (eMarketer, 2012). Another firm reported 59% growth in total TV industry revenues from online consumer direct payments (subscription plus VOD revenues) of $1.8–$3.1 billion between 2010 and 2011 (SNL Kagan, 2012).

[1] CBS Interactive is the umbrella organization for CBS.com, which offers full TV episodes, and tv.com, which offers short form videos.

[2] An FCC report (released July, 2012), on the status of competition in the video industries provides very useful and detailed description of the recent events in the online video industries and discusses the wide variety of revenue models, content, and levels of aggregation in this emerging industry.