

# **An AOL / Time Warner Merger Will Harm Competition in Internet Online Services**

**Jeffrey K. MacKie-Mason**

*Arthur W. Burks Professor of Information and Computer Science*

*Professor of Economics and Public Policy*

*University of Michigan*

<http://www-personal.umich.edu/~jmm/>

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# 1. Summary

America Online (AOL) is the largest, and in some aspects dominant, firm in the aggregation and distribution of content and services over the Internet. AOL is also the largest provider of Internet access in the U.S. Overall, it is the most successful firm in the business of *online services*, or the joint provision of Internet access and content and service distribution. This is a business that AOL essentially invented, and no other firm has been able to compete effectively with AOL.

The merger between AOL and Time Warner will horizontally and vertically increase AOL's power in the market for Internet online services. The anti-competitive effects of this merger will harm consumers.

Time-Warner (including its Road Runner subsidiary) is one of the most important present and future competitors in this business because it is the number two aggregator and distributor via high-speed (broadband) Internet connections, the next generation of Internet access. This merger thus combines AOL and one of its most significant competitors in online services, creating significant horizontal anti-competitive effects.

Time Warner is also the largest provider of content in the world, and for households in many major U.S. markets is the dominant provider of high-speed Internet conduit (infrastructure) and access (service). The leading conduit for high-speed Internet access today is cable modem service provided by cable television system operators, such as Time Warner. The most significant competitive conduit is digital subscriber line (DSL) service provided by telephone companies. As a result of this merger, AOL will have a reduced incentive to promote DSL service as a competitor to cable modems in high-speed conduit services. This is another direct anti-competitive effect of the merger.

Vertical power will be exerted through foreclosure of, exclusion from and less preferential access to Time Warner content by other online service providers. Some of the greatest harm will come through AOL/TW's opportunity to gain proprietary control over crucial content formats and applications standards and to manipulate these to maintain and extend its market power, much as Judge Jackson found that Microsoft did in the desktop computer industry.

## 1.1. **Market Background**

The aggregation and distribution of content and services has been an important industry throughout modern history. In popular jargon, this is the business of "the media", although media companies may also engage in other activities (such as the creation of content). Newspapers, magazines, broadcast and cable TV operators, radio stations, bookstores and so forth all participate in this industry. For antitrust purposes, there are several different markets that divide these firms based on the degree of competitive substitutability between their products and services. For example, in 1997 the FTC found

a market for sale of cable television programming services to households.<sup>1</sup> The participants in this market (multichannel video programming distributors, or MVPDs) are aggregators and distributors of content and services over cable TV networks. In some cases, including the MVPD market, the content aggregator and distributor also provides the access service for customers to reach the content.

There are four fundamental layers of economic activity involved in bringing content and communications services to Internet consumers. First, there must be conduit, physical plant such as cable and switching equipment. For competitive analysis, the key component of this conduit is the last mile of access, because there are few suppliers, and entry barriers for facilities-based entry are comparatively high. Second, there must be an access service provider (commonly called an Internet Service Provider, or ISP), who provides software and support to connect users via the last mile conduit to the rest of the Internet. Third, there are content aggregators and distributors who provide portals or gateways to Internet content. Fourth, there are the providers of content itself.

AOL is the largest provider of online services in the U.S., providing access as well as aggregation and distribution of content and services. Time Warner is the second largest aggregator and distributor serving high-speed access customers in the nation. Time Warner is also the largest provider of unique, proprietary content in the world.

If we study the activity layers separately, AOL is the largest provider of aggregation and distribution, and also the largest provider of access. Through the proposed merger with Time Warner, AOL will be able to further tie together three layers throughout the U.S. (by becoming the largest owner of proprietary content), and all four layers in areas of the U.S. served by Time Warner cable systems (by becoming a broadband conduit provider in those local markets).

## **1.2. Horizontal Effects**

The merger will eliminate an important competitive restraint on AOL in the online services market. AOL is the largest online service provider (OSP). Road Runner is the second largest online service provider for high-speed (broadband) residential access customers.<sup>2</sup> Road Runner has a first-mover advantage in broadband, a well-developed portal, business relationships with cable operators and content owners, and is owned by Time Warner, the world's largest provider of audio and video content (the types of content that distinguish broadband usage).

Further, because access is provided over fixed networks, broadband access is provided in *local* geographic markets. For example, no customers in the U.S. have a choice between broadband service from Road Runner and Excite@Home over cable systems: at most one service passes a given home. In many local markets, Road Runner is the largest (78%-

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<sup>1</sup> In the Matter of Time Warner Inc., Turner Broadcasting System, Inc., Tele-Communications, Inc., Liberty Media Corporation, FTC Docket No. C-3709.

<sup>2</sup> Road Runner has doubled its subscriber base since January 2000, to over one million subscribers. See "Road Runner Hits a Million," Road Runner press release, 23 Aug 2000, <http://www.rr.com/rdrun/>.

88% market share<sup>3</sup>) provider of high-speed access. Road Runner is probably the most important competitor to AOL in these markets, and the merger will severely lessen the competitive pressure on AOL.

### **1.3. Vertical Effects**

Time Warner will have the ability to withhold content, or provide content at disadvantageous terms, to content aggregators and distributors in competition with AOL, increasing AOL's power in the online services market. This is essentially the same problem that the FCC and FTC have addressed in the MVPD market by imposing rules and conditions on content producers, aggregators and distributors (cable operators or MVPDs).<sup>4</sup>

The merger will also have anti-competitive effects in the conduit market. Time Warner is the second largest provider of broadband conduit nationwide, and the dominant broadband conduit provider in its geographic coverage area.<sup>5</sup> Cable modem services are the leading means by which residential users obtain broadband services, and DSL is seeking to challenge cable modem service. ISPs and OSPs who are unaffiliated with cable television system owners have not been able to offer high-speed services over cable modems. In fact, prior to this announced merger, AOL led the charge to require cable systems to provide "open access" to other ISPs. Absent this merger and "open access," AOL's primary method of delivering high-speed services would likely be DSL. Through this merger, however, AOL is acquiring one of the largest cable system operators in the nation and its interest in promoting services that compete with cable system services, including cable modem services, will be reduced. The merger, therefore, reduces competition in high-speed conduit services.

The merger increases the ability of AOL/TW to further harm competition and consumers by controlling and manipulating standards for crucial consumer services and content formats. With the largest user base and control of unique and important content, AOL/TW will be able to set or manipulate standards for communications and information services that are subject to network effects. These include audio formats, video formats,

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<sup>3</sup> According to the FCC's August 2000 Broadband Survey, cable operators' average share of "advanced telecommunications services" (at least 200 Kbps in each direction) over all local geographic markets nationwide was 87.5% on 12/31/99. Cable's share of "high speed" (200 Kbps or faster in at least one direction) was 77.8%. See "Deployment of Advanced Telecommunications Capability: Second Report," FCC, August 2000, ¶¶8 for definitions, ¶¶71, 72 for cable's share).

<sup>4</sup> See, e.g., In the Matter of Time Warner Inc., Turner Broadcasting System, Inc., Telecommunications, Inc., Liberty Media Corporation, FTC Docket No. C-3709.

<sup>5</sup> As mentioned above, in Section 1.1, and detailed below in Section 2.1, access service and conduit are separate economic activities. Most Internet access is sold separately from, and by separate providers than, conduit access, and online services are provided by companies like AOL, Microsoft, Yahoo/BlueLight and so forth; conduit is provided by SBC, Verizon, Bell South, etc.

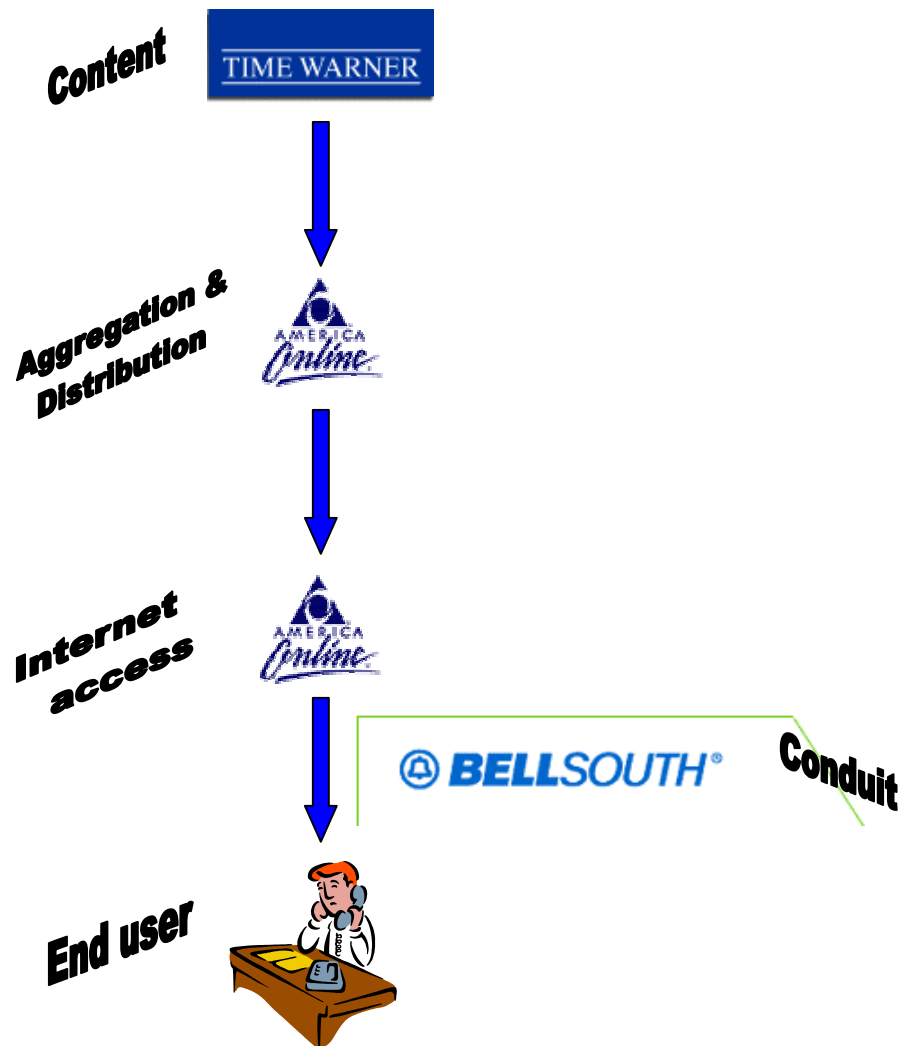
instant messaging, interactive TV, and other current and future Internet-delivered services.

In addition, by uniting the interests of AOL and Road Runner, the merger will increase buying power in the upstream market in which Internet content is sold to online service providers. In the parallel market in which video programming is sold to MVPDs, concern about the anticompetitive effect of monopsony power on the diversity of content available has resulted in the imposition of a cap on the proportion of cable subscribers any single cable operator may serve. The cap on the size of cable companies is 30%; AOL and Road Runner's combined share of the online services market measured by subscribers is 41%. Thus, it is likely that AOL will be able to manipulate and distort the market for content creation and provision to distributors.

## **2. Market Definition**

### **2.1. Industry Layers**

There are four fundamental layers of economic activity involved in bringing content and communications services to Internet consumers. To illustrate, consider the following simple transaction: an end user with BellSouth phone service uses AOL to connect to the Internet, uses the AOL portal to find information, and reads a Time Warner magazine article featured there. The first layer encountered by the user is her *access provider* (AOL in this example), which provides software and support to connect users to the Internet. The second layer encountered (AOL in this example) is a *content aggregator and distributor*, generally called a portal. The third layer (Time Warner in this example) is a *content provider*. The fourth layer is the *conduit*, or physical plant that transmits data (with Bell South the local conduit provider in this example).



### 2.1.1. Aggregation and Distribution of Content

Portal services are offered by such firms as AOL, MSN, Lycos, and Yahoo!. In some cases, users access content directly, bypassing the content aggregation and distribution layer. But the vastness of the Internet makes portals' content aggregation services essential: the Web has over a billion pages,<sup>6</sup> and the typical user's range of "travel," is only six Web sites and approximately 30 pages per online session.<sup>7</sup> Because content aggregators help users find the information they want, and offer some proprietary

<sup>6</sup> Inktomi, 18 January 2000, "Web surpasses one billion documents," Press release available at [www.inktomi.com/news/press/billion.html](http://www.inktomi.com/news/press/billion.html)

<sup>7</sup> The typical "surfer" visits only 6 unique sites per session and views roughly 200 (not necessarily unique) pages per week. Nielsen//NetRating Report, 27 January 2000

information themselves, there has been tremendous growth in their usage. A recent study found that almost 90 percent of Web surfers visited a portal during November 1999.<sup>8</sup>

Most portals are financed by advertising revenue, although e-commerce commissions are growing in importance. Portals thus seek to: (a) attract and retain visitors, in order to increase their “reach” and number of advertisements viewed, which determine ad revenue, and (b) maximize the amount of online shopping done from the portal, which determines e-commerce commissions.

Much like newspapers and yellow pages, portal operators are driven by two interdependent concerns: providing desirable content to attract viewers and then selling access to those viewers by selling display space to advertisers.<sup>9</sup> The portal tries to create a product that will attract viewers. In addition to content aggregation and distribution, portals also offer applications, such as search tools, e-mail, instant messaging, “chat rooms”, shared calendars, image (e.g., digital photo) storage, address books, and so forth.

The need to attract visitors is the reason portals are seeking to become the primary platform through which users can perform most or all of their Internet transactions. If the portal is successful at increasing user holding time and the number of ads viewed (and possibly clicked), then it can induce advertisers to pay for more advertising space, and at higher rates. The ad revenue allows the portal to gain market control over more content and applications, thereby driving out competitors and allowing it to extract more profit from users and advertisers.

### **2.1.2. Conduit**

Conduit that connects end users to nodes of the Internet is known as the “last mile.” The last mile is the critical portion of the conduit for antitrust analysis, because there are relatively few suppliers and entry barriers for facilities-based entry are relatively high. Bandwidth over the last mile of conduit is a major determinant of the transmission speeds that end users experience. Currently, most end users employ their ordinary phone lines for last-mile connections; these are known as dial-up connections, and provide narrowband Internet service, with transmission speeds below 56 Kbps. Increasingly, however, end users are employing broadband<sup>10</sup> last-mile conduit, and experiencing

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<sup>8</sup> Forbes magazine reports Nielsen//NetRating statistics that show 87.8% of Web surfers visited a portal in November 1999. *Forbes*, “Portals cement online domination,” 29 December 1999.

<sup>9</sup> AOL gets about 63% of its revenue from subscribers, and 30% from advertising, product placement and e-commerce commissions. Newspapers generate about 19% of revenue from subscribers, according to the Newspaper Association of America (<http://www.naa.org/info/facts00/07.html> and [.../08.html](http://www.naa.org/info/facts00/08.html)). AOL data for first three months of 2000, from AOL form 10Q.

<sup>10</sup> See footnote 3 for the FCC’s definitions of high-speed Internet access.



transmission speeds of 1 Mbps (1,000 Kbps) or better. There can be little doubt that, just as 1200 baud modems gave way to 56 K modems, broadband last-mile transport will ultimately supplant dial-up connections.<sup>11</sup>

### **2.1.3. Internet Access**

An Internet access provider (commonly called an Internet Service Provider, or ISP) connects end-users to the Internet. The connection is in two hops, the last-mile conduit between the end-user and the ISP's facilities, and from the ISP's facilities to an Internet backbone supplier's facilities, from which the ISP purchases transport services. Internet access service is differentiated by the conduit used over the last mile. ISP service that uses ordinary telephone lines is called dial-up service. To supply other forms of access service, ISPs purchase last-mile transport from conduit providers, such as ISDN lines, DSL lines, and access to cable modem facilities. Unless end-users configure their systems otherwise (and most do not), the ISP's Web page is the first screen users see when they connect to the Internet. ISPs take advantage of this to differentiate their service to appeal to market niches, such as Hispanics, Catholics, gays, and residents of the local geographic areas by providing links to Web sites of interest to those communities. In short, ISPs are the interface between end-users and the Internet, bringing together backbone service, last-mile conduit, communications software, billing services,<sup>12</sup> and content.

### **2.1.4. Content**

The Internet began as a place to share technical information, and some Internet content is supplied by engineers and academicians to a very narrow audience. In addition, some small "virtual" communities use the Internet as a place to share information. One of the distinguishing features of the Internet is that the cost of creating a Web site is so low that it is possible for individuals to make content available to the world. The Internet has become, however, a mass-market medium, and content is supplied by the traditional media industries: newspaper, magazine, music, and radio suppliers, and in a limited way, the television and film industries. Once broadband is commonplace, the television and film industries are likely to become much larger suppliers of content than they are now.

Since merger analysis must address the effects that the proposed merger will have in the future, it is appropriate to consider the effect the AOL - Time Warner merger will have on the Internet as it will exist in the near future, in which broadband access is common, and the Internet is even more of a mass-market medium than it is now, supplying television, film, and music to a wide audience.

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<sup>11</sup> The FCC reports that a range of analysts expect that by the end of 2004, 35 million households, about a third to a half of online households, will have high-speed Internet service. (See "Deployment of Advanced Telecommunications Capability: Second Report," FCC, August 2000, ¶186).

<sup>12</sup> Except for cable modem ISPs, which employ cable operators' billing services.

## 2.2. Online Services Market

For the analysis of this merger, I believe it is proper to define a market for “online services”, which include the provision of Internet access and portal service (aggregation and distribution of content and applications). Access and portal services are technically distinct layers, and need not be provided together. However, due to technical and customer preference reasons, they are increasingly provided jointly, and will be even more so in the near future. In addition, AOL bundles the two services, so the definition I have chosen facilitates analysis of this proposed merger. Indeed, AOL describes itself as “the world’s leader in interactive services.”<sup>13</sup>

For technical reasons, access and portal services are increasingly provided jointly as an online service. With narrowband access network congestion between the information servers and the end-user can make surfing tedious, but it does not necessarily destroy the customer’s experience. With broadband content (such as streaming video), network congestion can be fatal. By combining portal and ISP services, the portal can store (“cache”) the most popular broadband content at the ISP point-of-presence (“POP”) to which the end-user connects, drastically reducing network congestion.

Distributed caching has already become an important feature of portal services delivered over narrowband Internet connections. Narrowband caching is dominated by independent firms, the most notable of which is Akamai.<sup>14</sup> Akamai and its competitors provide services to most of the major portals, demonstrating the increasing necessity of caching for a successful portal business.<sup>15</sup> However, high-speed Internet online service providers are building their own caching facilities, to ensure sufficient control and service quality for the much more demanding broadband content. The two most successful broadband service providers – Road Runner and Excite@Home – provide access, portal service and local caching.<sup>16</sup>

In addition, there is an important marketing and customer service advantage to joint provision of access and portal (aggregation and distribution) services. The ISP is the first point of contact between the customer and the Internet. Most customers, particularly less-experienced users, can be steered to the ISP’s Web site as their first point of entry. Although the user can potentially reconfigure their starting point, or just surf to another

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<sup>13</sup> See, e.g., “Who we are”, <http://corp.aol.com/howeare.html>.

<sup>14</sup> Akamai started operations in April, 1999. It currently has a market capitalization of approximately \$1 billion.

<sup>15</sup> Caching is used by AOL, Yahoo, Microsoft, GO.com, Lycos, Quicken.com, Reuters, Intuit, CNBC and many others.

<sup>16</sup> In fact, Road Runner and Excite@Home go further, also providing the physical conduit over which access service is delivered. In this they are following the model of the multi-channel video programming distributors (cable TV companies) of which they are subsidiaries.

portal, only a relatively small minority actually do this.<sup>17</sup> Thus, being the *physical* gateway translates into having a substantial market share as the *virtual* portal service.

Indeed, in the past couple of years, most major ISPs and portals have formed partnerships to provide joint services.<sup>18</sup> ISPs use portals to differentiate their Internet access offerings, which are rapidly becoming low-margin commodity services. Portal services, in part by inducing customers to engage in site-specific database creation (things like getting the user to enter her stock portfolio, developing a non-transferable home-page, and distributing an email address that is not portable) can reduce customer turnover for ISPs.<sup>19</sup> ISPs have also recognized that their control over the first page viewed by Internet users is a valuable asset.<sup>20</sup> It is to their advantage to encourage their users to spend more time on the ISP site, increasing the potential for advertising revenue. In addition, rates for targeted advertising are higher, and online service providers with both an ISP service and a portal have user data that facilitate targeted advertising.

The markets examined here are similar to MVPD markets: in both cases, there are upstream markets in which content providers sell to content aggregators/distributors (portals or MVPDs), who in turn provide an access service to a downstream market in which they sell content to consumers.

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<sup>17</sup> “28% of households have substituted the start page pre-installed with their browser software with an alternative, such as a directory page. 25% of households have personalized their start page – either that of their ISP/online service provider or an alternative they have substituted.” *Personalizing the Internet access start page – all things in moderation*,” Gartner Group EHTO-US-DP-9911, Overview accessed 2/2/00 1:09 pm.

<sup>18</sup> Several major “independent” portals have recently concluded they need to develop close relationships with ISPs. For example, AltaVista and Excite have teamed up with 1stup.com, and Yahoo has teamed up with BlueLight.

<sup>19</sup> Typical portal services that require non-transferable customer database creation and customization include email service, Web page hosting, stock portfolio tracking, calendar sharing, chat and instant messaging profiles, local weather and sports reporting, local entertainment listings, personalized news pages, etc. See <http://www.aol.com> and <http://www.yahoo.com> to see the large number of services offered that require non-transferable data entry and customization.

<sup>20</sup> For example, “In the first quarter of 1998 EarthLink began reporting incremental revenues derived from programs such as advertising and electronic commerce that leverage the Company's growing member base and user traffic. ... Incremental revenues were \$392,000 and \$1.1 million during the three months ended March 31, 1998 and June 30, 1998, respectively.” EarthLink 10Q for June 30, 1998. In the second quarter 2000, EarthLink earned \$8.24 million in advertising and e-commerce revenues. EarthLink 10Q for June 30, 2000.

### 3. Market Power

#### 3.1. Power in Aggregation and Distribution of Content and Services

The provision of portal services (the aggregation and distribution of content and services) is concentrated, and becoming more so. AOL has been the top portal destination for as long as data measuring such patterns have been consistently collected.<sup>21</sup> Indeed, it could be said that AOL invented the portal concept before the Internet was even a commercial network.

AOL is also the largest and most successful Internet property. The single clearest measure of AOL's dominance is that *thirty-eight percent of total time online in January 2000 was spent on AOL's "walled garden" sites. That amount is more than five times greater than the next most popular site (e.g. Microsoft's property only had seven percent of total time online).*<sup>22</sup>

Unfortunately, time online statistics were not collected prior to January 2000. To get a longer perspective on AOL's top position in online services, it is necessary to rely on "reach" or "unique visitors" data. These statistics measure the number of unique visitors to a company's Web properties during a month. They do not fully reflect AOL's dominance because they do not show the number of repeat visits during the month, nor the total amount of time spent online.

Nonetheless, reach statistics do demonstrate the growing power of AOL as the largest portal. In August 2000, #1 AOL reached 79% of the U.S. users of the Internet. AOL reached 21% more users than did the #2 property, Yahoo. AOL reached *four times* as many users as did Amazon, the #10 Web property.<sup>23</sup> That general relationship is evidenced in essentially all reported statistics on Web usage.<sup>24</sup>

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<sup>21</sup> AOL Web properties are ranked as number one in unique visits by Nielsen (<http://209.249.142.27/nnpm/owa/NRpublicreports.toppropertiesmonthly>), PC Data (<http://www.pcdonline.com/reports/topmonthlyfreep.asp>) and Media Metrix (<http://www.mediametrix.com/usa/data/thetop.jsp>) as of May 2000.

<sup>22</sup> See Patricia Jacobus, *AOL, Tax sites make headway in traffic*, Feb. 22, 2000 <<http://home.cnet.com/category/0-1005-200-1554872.html>> (visited Aug. 17, 2000) (hereinafter "*AOL Sites*"); Marc Gunther, *These Guys Want It All*, FORTUNE, Feb. 7, 2000, at 70. In addition, *The Economist* reports that "almost three-quarters of AOL members' time, and nearly 40% of the time that all Americans spend on the web, is currently spent within AOL's 'walled garden' of content and services." See *A Theory of the Case*, *The Economist*, Jan. 15, 2000.

<sup>23</sup> Media Metrix, August 2000 data, viewed 10 October 2000 at <http://www.mediametrix.com/data/thetop.jsp?language=us>.

<sup>24</sup> Data from various market watchers using various metrics reveal a common picture: compared to the #1 ranked observation, #10 receives about 20% as much traffic, #20 receives 10% as much. I say the "#1 ranked observation" because some surveys give

AOL's economic power in terms of its claim on advertising revenues is far greater than a simple comparison of relative reach statistics would indicate, in part because the relationship between reach and advertising revenues is not a linear one. Smaller portals are not of sufficient size to attract advertising dollars. It was recently reported that even the portals Go and NBC Internet, the sixth and ninth-most popular properties on the Web, have failed to attract enough advertising revenue to survive in their present form.<sup>25</sup> Even larger portals do not attract advertising revenues in proportion to their reach statistics. For example, although Lycos, the #4 Web property, had 72% as many unique visitors as did Yahoo! in September 1999, it received only 36% as much advertising revenue.<sup>26</sup> The relevance of reach statistics alone is further limited because they do not reflect AOL's position as the dominant ISP, providing residential connections to the Internet, nor its already substantial position in content, even without merging with Time-Warner.

Thus, in portal activities AOL has five times as many online minutes as its nearest competitors, and it reaches 20% more unique users than Yahoo!, the #2 property. But, as the stock market recognizes, there really is no comparison to Yahoo!. AOL's market capitalization (on 10 October 2000) is 2.3 times larger than Yahoo!'s. Its annual revenues are twice as large (\$2 billion vs. \$1 billion).

Due to the economics underlying portals, concentration once achieved will not be reversed by market forces. Portal provision exhibits three economic characteristics that tend toward industry concentration. The first is a network effect: positive feedback loops due to network externalities. The network externalities are of the classic fax machine variety – certain aspects of portals become more valuable to current customers as more customers join the portal. Instant messaging is the most obvious example of this: a given messaging network becomes more valuable to me as the number of people with whom I can use it increases. This effect can be quite powerful. For example, both Juno and EarthLink, firms striving to compete with AOL in the ISP market, have felt compelled to enter agreements with AOL whereby the Juno and EarthLink customers use AOL Instant

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results by “properties” (all the sites owned by a given company are aggregated at the company level), while some give results by “sites” (e.g. results for Hotmail.com and MSN.com are reported separately).

<sup>25</sup> ““Right now investors are not rewarding the Internet activities of Disney [Go], NBC [Snap], and Viacom,” said Tom Wolzien, an analyst with Sanford C. Bernstein. “They are small, and the market prefers the big players like Yahoo and America Online.”” Both portals have lost market share over the past year. “The best days of both Go and Snap seem to be behind them.” “NBC Internet, citing slow ad sales, said it would lay off 20 percent of its work force.” Disney decided earlier this year to pull back from the portal business. (“The Medium Gets the Message; TV’s Monoliths Have Learned The Web Is a Fragmented World, New York Times, 14 Aug 2000). Indeed, as of August 2000, NBC Internet reached only 23% as many unique visitors as did AOL.  
<http://www.mediametrix.com/data/thetop.jsp?language=us>.

<sup>26</sup> Unique visitors from Media Metrix. Ad revenues from each company’s 10Q reports to the SEC.

Messenger. That is, the network externality generated by AOL's IM users is so strong that Juno and EarthLink feel compelled to send their customers to their strongest competitor to acquire this service.

Second, as with any publishing business, there are substantial economies of scale. The fixed cost of aggregating and indexing content are significant while the marginal cost of distributing the results are low.<sup>27</sup>

Third, despite the fact that essentially anyone can create and set up a portal-like Web site, entry barriers are very high. That is because "entry," in the antitrust sense, means "substantial entry that produces real pressure on established firms' profits."<sup>28</sup> As noted above, given the magnitude of the Web and typical breadth of travel, most consumers are never aware of most sites.<sup>29</sup> "Substantial entry" requires very significant effort to gain mind-share in addition to the effort required to create and maintain a major portal.

Economic theory predicts that these three economic characteristics of portals will protect large, established firms and disadvantage smaller firms. The effect of this concentration, and in particular the top-heaviness of the concentration, is obvious in the data.

AOL and a very few other top Web properties have grown substantially, while lower-ranked properties haven't seen similar gains. Since October 1998, AOL's reach has increased by 30.8 points, from 47.9% of all online users per month to 78.7%. Although the comparable numbers for Yahoo and Microsoft have also increased (17.7 points, from 47.6% to 65.3% and 18.9 points, from 46.3% to 65.2%, respectively), they have not increased as much.<sup>30</sup> This trend has recently been noted in the popular press as well.<sup>31</sup>

Similarly, for a supposedly dynamic industry with "free" entry, the top 10 firms show remarkable stability. The top four firms in April 2000 (AOL, Yahoo!, Microsoft, and Lycos) were the top four firms in October 1988. The only new entrant in the top 10 is the

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<sup>27</sup> These costs are fixed and marginal with respect to additional viewers, not with respect to additional content.

<sup>28</sup> "In general, a clear signal of low barriers is provided only by effective, viable entry that takes a nontrivial market share. . . . Particularly where scale economies are important, there is a basic difference between toehold entry that never gets any bigger and substantial entry that produces real pressure on established firms' profits." Richard Schmalensee, "Ease of Entry: Has the Concept Been Applied Too Readily?," 56 *Antitrust L.J.* 41 (1987).

<sup>29</sup> Nielsen//NetRatings reports that the typical home user viewed 634 pages in January 2000. At that rate, it would take over 131,000 years to view the 1 billion pages that existed at the time.

<sup>30</sup> Media Metrix.

<sup>31</sup> "The biggest names—AOL, Yahoo! and Microsoft—have benefited at the expense of second-rankers such as Lycos and Excite@Home." *The Economist*, August 26, 2000, p. 55.

search portal About.com (now in the seventh spot). Three firms in the top 10 in October 1998 have been acquired by or merged with other firms in the top 10.<sup>32</sup> Thus, the current top 10 is basically the October 1998 top 12 plus one new member.

### **3.2. Power in Internet Access**

AOL is by far the largest provider of Internet access services. With over 21 million subscribers in the US, it likely has a market share of approximately 40%.<sup>33</sup> No other ISP is even close. EarthLink and MSN are the next largest ISPs in terms of subscribers and, based on recent public data, neither one of them has as many as 4 million subscribers.

In the many important local markets in which it participates, Road Runner is one firm that holds the promise of competing successfully in Internet access services because of its first-mover advantage in broadband services, its captive access to cable households, and the access to content owned or controlled by its corporate affiliates. This merger clearly eliminates this strong competitor to AOL.

As discussed in the next section, the online services market is one in which network effects exist. Because of its huge subscriber base, and through closed applications that exclude competitors (such as chat groups and IM), AOL may already have the market power which dominant firms have in network industries. Because of these network effects, it is not likely that firms other than Road Runner (in its markets), with its unique advantages, will be in nearly as good a position to challenge AOL's dominance.

### **3.3. Characteristics of Network Markets**

Network effects can help the firm to retain its market power, essentially by creating a high barrier to entry. Network effects arise when the value of a good is increasing in the number of other consumers who purchase the good. There are two fundamental reasons this may occur.<sup>34</sup> First, participation in a *communications network* is more valuable when there are more network participants with which one can communicate. Instant messaging is a prototypical example: being a registered user of MSN's instant messaging service

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<sup>32</sup> Netscape, GeoCities, and Infoseek (ranked numbers 5, 6, and 9, respectively, in 1988) were subsumed into other members of the top 10 in 2000 (AOL, Yahoo!, and Go/Disney, respectively).

<sup>33</sup> The underlying data on number of subscribers for each ISP is the June 30, 2000 figure reported in *TR's Online Census*, Telecommunications Reports International Inc., August 2000. *TR* reports AOL's total subscribers worldwide; AOL reports its US subscriber count in its quarterly SEC reports (10Qs). I applied the ratio (US subscribers / worldwide subscribers) from March 31, 2000 to *TRO's* figure for June 30.

The estimate of AOL subscribers does not include 1.5 million subscribers to Gateway.net, an ISP that AOL manages.

<sup>34</sup> See Katz, Michael and Shapiro, Carl, "Network Externalities, Competition and Compatibility," *American Economic Review*, July 1985, 75, 424-40 at p. 424 for a discussion of how network effects arise.

would be more valuable if one could use that service to communicate with all instant messaging users. AOL, however, prevents communications between MSN's IM service and its own. The second reason network effects arise is the greater availability of complementary goods (e.g., software) that are likely to be available when there is a larger installed base of a durable good (e.g., hardware). Internet audio players and audio content are an example of network effects due to complementarity: the greater the installed base of audio players using a given standard for audio distribution over the Internet ("hardware"), the more audio content ("software") will be available that uses that standard, so the value to consumers (and content producers) of adopting a standard is greater when more consumers use the standard.<sup>35</sup>

Markets with network effects have some unusual characteristics. First, equilibrium depends critically on consumers' expectations of other consumers' behavior,<sup>36</sup> and multiple equilibria are common.<sup>37</sup> For example, in the market in which operating systems are "hardware" and applications software is "software," there is an equilibrium in which everyone expects that Linux will become a popular operating system and it is accepted in the market, and there is an equilibrium in which everyone expects Microsoft's operating systems to continue to dominate, and Linux fails. The importance of consumers' expectations means that network markets are particularly sensitive to such things as firm reputation, announcements, and bandwagon effects, for these may determine which of the multiple equilibria is realized in the real world.<sup>38</sup>

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<sup>35</sup> In both communications networks and hardware/software networks, there is an externality associated with joining a network: the decision to join the network is made based on the private benefit from joining, and doesn't take into account the benefit that accrues to other network members due to expansion of the network. For this reason, network effects are often called "network externalities." Network effects are also called "demand side economies of scale" because the value of the network to each consumer is greater when the network is larger.

<sup>36</sup> "[E]xpectations about the ultimate size of a network are crucial" in determining winners in network markets. Besen, Stanley, and Farrell, Joseph, "Choosing How to Compete: Strategies and Tactics in Standardization," *Journal of Economic Perspectives*, Spring 1994, 8, pp. 117-131 at p. 118.

<sup>37</sup> Multiplicity of equilibria exist even when expectations are assumed to be rational (equilibria are restricted to those in which consumers expectations are fulfilled). See Katz, Michael and Shapiro, Carl, "Systems Competition and Network Effects," *Journal of Economic Perspectives*, Spring 1994, 8, pp. 93-115 at pp. 96-97.

<sup>38</sup> "[F]irms' reputations may play a major role in determining which equilibrium actually obtains." Katz, Michael and Shapiro, Carl, "Network Externalities, Competition and Compatibility," *American Economic Review*, July 1985, 75, 424-40 at p. 439. Bandwagon effects and product preannouncements are discussed in Farrell, Joseph, and Saloner, Garth, "Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation," *American Economic Review*, December 1986, 76, pp. 940-55 at pp. 942-943, 945, 948-949.



Network markets are characterized by “tipping,” or the adoption of one system or standard to the exclusion of others<sup>39</sup> – the demand-side equivalent of monopoly due to economies of scale in production. Tipping has been observed in markets for AM stereo radio, FM vs. AM radio, color vs. black and white television, VHS vs. Beta videocassette recorders, and typewriter keyboards.<sup>40</sup> Once a market has tipped, it may be resistant to the adoption of superior incompatible technologies, a phenomenon called “excess inertia”.<sup>41</sup> As the examples and theoretical results show, in network markets, a large installed base can be a barrier to entry.<sup>42</sup> This barrier creates a “first-mover advantage” – a tendency for network markets to tip in the direction of early entrants, because they can establish installed bases that create a barrier to subsequent entrants.<sup>43</sup>

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<sup>39</sup> “[N]etwork markets are tippy: the coexistence of incompatible products may be unstable, with a single winning standard dominating the market.” Besen, Stanley, and Farrell, Joseph, “Choosing How to Compete: Strategies and Tactics in Standardization,” *Journal of Economic Perspectives*, Spring 1994, 8, pp. 117-131 at p. 118.

<sup>40</sup> In theoretical models, tipping is characterized by multiple corner equilibria in static models, and, in dynamic models, zero sales of existing systems after the introduction of new technology. See Katz, Michael and Shapiro, Carl, “Systems Competition and Network Effects,” *Journal of Economic Perspectives*, Spring 1994, 8, pp. 93-115 at pp. 105-106.

<sup>41</sup> “With network effects, it can be very difficult to switch horses in midstream to a system that later proves superior.” Katz, Michael and Shapiro, Carl, “Systems Competition and Network Effects,” *Journal of Economic Perspectives*, Spring 1994, 8, pp. 93-115 at p. 106. However, theoretical results show that both “excess inertia” and, as noted above the opposite tendency, “excess momentum” are possible in network markets. See Farrell, Joseph, and Saloner, Garth, “Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation,” *American Economic Review*, December 1986, 76, pp. 940-55 at p. 943.

<sup>42</sup> See Farrell, Joseph, and Saloner, Garth, “Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation,” *American Economic Review*, December 1986, 76, pp. 940-55 at p. 942. Saloner notes that “*de novo* entry into a market occupied by vendors with large installed bases is exceedingly difficult.” Saloner, Garth, *Economic Issues in computer Interface Standardization*, 1 Econ. Innovation & New Technology 135, 140 (1990).

<sup>43</sup> See Katz, Michael and Shapiro, Carl, “Systems Competition and Network Effects,” *Journal of Economic Perspectives*, Spring 1994, 8, pp. 93-115 at pp. 405-406, and Besen, Stanley, and Farrell, Joseph, “Choosing How to Compete: Strategies and Tactics in Standardization,” *Journal of Economic Perspectives*, Spring 1994, 8, pp. 117-131 at pp. 118-119, 122.

### **3.4. Prior Behavior Consistent with Market Power**

#### **3.4.1. AOL Pricing**

Evidence of AOL's market power can be found in the fact that AOL's price for online service has increased while the prices of most other online service providers have held steady or declined. AOL introduced its unlimited usage plan for \$19.95 in December 1996;<sup>44</sup> many other service providers followed suit, and \$19.95 unlimited usage plans became an industry standard.

In February, 1998, shortly after acquiring its biggest competitor (CompuServe), AOL raised its price to \$21.95. CompuServe raised its price, too, while at the same time some service providers, such as MCI, were cutting their rates.<sup>45</sup>

Advertising-supported ("free") service, which began by 1997, was well-established by late 1999.<sup>46</sup> Fee-based service providers still averaged \$20 around that time.<sup>47</sup> However, substantial discounting was starting to become common. For example, MSN offered 3 months of Internet access to CostCo members for \$11.99 per month.<sup>48</sup>

AOL charges more for its online services than most other service providers. AOL's ability to sustain its price while retaining market share is evidence of the value that AOL's aggregation and distribution of content contributes to its service.

#### **3.4.2. Instant Messaging**

Instant messaging is a communications service that allows users to see when friends, family, and co-workers are online. It allows them to communicate in real time, with faster response than email. Users can receive stock price and other alerts, share photos, pictures and sound, find and chat with new people with similar interests. It also has a presence detection feature that allows others (selected by the user) to know whether the

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<sup>44</sup> See AOL press release 12/2/96, "America Online Launches New Unlimited Use Pricing," [http://media.web.aol.com/media/press\\_view.cfm?release\\_num=124&title=America%20Online%20Launches%20New%20Unlimited%20Use%20Pricing](http://media.web.aol.com/media/press_view.cfm?release_num=124&title=America%20Online%20Launches%20New%20Unlimited%20Use%20Pricing).

<sup>45</sup> See "AOL raising prices," CNET News.com, 2/9/98, <http://news.cnet.com/news/0-1005-200-326374.html>

<sup>46</sup> See "Access for nothing?," CNET News.com, 12/22/96, <http://news.cnet.com/news/0-1005-200-315347.html?tag=st.ne.1.srchres.ni>; "Free Net services gain ground on leaders," CNET News.com, 11/30/99, <http://news.cnet.com/news/0-1004-200-1474678.html?tag=st.ne.1.srchres.ni>. Subscribers to free Internet access "pay" for the service, of course, by viewing ads.

<sup>47</sup> "Free ISP claims 500,000 users," CNET News.com, 3/17/99, <http://news.cnet.com/news/0-1004-200-340054.html?tag=st.ne.1.srchres.ni>.

<sup>48</sup> "MSN, Costco offer low-cost Net access," CNET News.com, 8/9/99, <http://news.cnet.com/news/0-1005-200-345869.html>.

user is online. This service has proven to be wildly popular, and every significant portal service has tried to offer some version of instant messaging. Both the real-time nature of the service and its presence detection feature make it likely that IM services will be even more important and have wider application in the near future than they are today.

Instant messaging is characterized by network externalities: the value to each user increases as the number of other users with whom she can communicate increases. AOL is the dominant provider of instant messaging, controlling 90 percent of the market.<sup>49</sup> AOL has over 64 million registered users for its AIM service, and over 75 million registered users for its ICQ service.<sup>50</sup> ICQ has increased its registered user base by 50% since December 1999;<sup>51</sup> AIM has increased its registered user base by 42% in the past 12 months.<sup>52</sup>

AOL has refused to allow consumers of other services to interconnect with its customers. AOL has vigorously opposed providing access to rival online service providers, including Microsoft, AT&T, Prodigy, Tribal Voice, iCast, Odigo and AltaVista.<sup>53</sup> This has the same effect on the success of instant messaging services from other providers as would have a (successful) refusal by AT&T to interconnect the phone calls of GTE and other providers before the 1984 breakup.<sup>54</sup>

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<sup>49</sup> See “David-and-Goliath Battle in Cyberspace,” New York Times, 6/24/2000 at A16. See also, “FTC unlikely to use messaging against AOL Time Warner,” CNET News, August 21, 2000 at <http://news.cnet.com/news/0-1005-200-2574878.html>, which states “About 80 percent of all IM users favor AOL’s proprietary software.”

<sup>50</sup> For AIM users, see <http://www.aol.com/aim/home.html>. For ICQ users, see <http://web.icq.com/>.

<sup>51</sup> See “ICQ surpasses 50 million registered users”, [http://www.icq.com/press/press\\_release32.html](http://www.icq.com/press/press_release32.html).

<sup>52</sup> See “AIM surpasses 45 million registered users”, [http://media.web.aol.com/media/press\\_view.cfm?release\\_num=10100420&title=AMERICA%20ONLINE%20INTRODUCES%20NEXT%20GENERATION%20AOL%20INSTANT%20MESSENGER%20VERSION%203%2E0%20FOR%20WINDOWS%20AND%20MAC%20USERS](http://media.web.aol.com/media/press_view.cfm?release_num=10100420&title=AMERICA%20ONLINE%20INTRODUCES%20NEXT%20GENERATION%20AOL%20INSTANT%20MESSENGER%20VERSION%203%2E0%20FOR%20WINDOWS%20AND%20MAC%20USERS).

<sup>53</sup> See “Odigo, AOL fight over instant messaging connections,” CNET News.com, 6/13/2000, <http://news.cnet.com/news/0-1005-200-2111220.html?tag=st.ne.1002.srchres.ni>. AOL has reached agreement with Lycos (as well as IBM, Novell EarthLink, Apple Computer and Juno Online Services) to distribute AIM to its members. See “Messaging rivals call AOL on privacy, security issues,” CNET News.com, 7/21/2000)

<sup>54</sup> For example, “The top request from our customers for the instant messaging service is interoperability. Users don’t understand why they can’t talk to AOL or ... MSN people so we get plenty of e-mails from users who wish there was the ability to talk to all their friends.” Yahoo!’s Brian Park, quoted by Reuters, “AOL looks safe on Instant Messaging – analysts,” August 25, 2000, at <http://www.reuters.com>.

The effect of interconnection denial is so strong that both Juno and EarthLink, struggling competitors to AOL, have felt compelled to enter agreements with AOL whereby the Juno and EarthLink customers use AOL Instant Messenger. That is, the network externality generated by AOL's users is so strong that Juno and EarthLink feel compelled to send their customers to their strongest competitor to acquire this service.

AOL's control of this remarkably popular service is thus implemented in two parts: online service providers who compete head-on with AOL are denied interconnection to AOL users, while service providers that limit themselves to access service and do not challenge AOL in content aggregation and distribution (e.g., Juno and EarthLink) are allowed to license AOL's branded service.

Firms attempting to compete with AOL have started a public standards-setting process to create an interconnection standard that would allow all instant messaging customers of different services to communicate. There have been numerous reports that AOL is not cooperating with the open standards body.<sup>55</sup>

### 3.4.3. AOL 5.0

Early this year, at least forty-five lawsuits were filed against AOL alleging that Version 5.0 of its access software interferes with access to competing ISP services.<sup>56</sup> Allegations include attempted monopoly.<sup>57</sup> I have personal experience with the exclusionary effects of AOL's behavior.<sup>58</sup>

According to the lawsuits, during the installation procedure for Version 5.0, the user is asked if she wants AOL's browser to be the default browser on the computer. If the consumer accepts AOL as the default, the computer will use AOL's browser and Internet access service for every online procedure (surfing, dialing-up for access, downloading or uploading files or e-mail) unless specifically instructed otherwise. But some users have been unable to access non-AOL ISPs after installing AOL Version 5.0. For example, the plaintiffs in one of the lawsuits allege that AOL impaired "the ability of AOL 5.0 users to

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<sup>55</sup> See, e.g., "AltaVista enters instant messaging fray," CNET News.com, 6/19/2000, <http://news.cnet.com/news/0-1005-200-2111220.html?tag=st.ne.1002.srchres.ni>; "Instant messaging battle goes to Washington," CNET News.com, 6/7/2000, <http://news.cnet.com/news/0-1005-200-2033664.html>.

<sup>56</sup> See "AOL 5.0 lawsuits consolidated in Florida", *Mealey's Cyber Tech Litigation Report*, vol. 2, no. 4 (June 2000). See also "Lawsuit claims AOL 5.0 blocks rival services," *The Associated Press*, February 2, 2000, 10:25 a.m. PT at <http://home.cnet.com/category/0-1005-200-1540024.html> and "AOL Rivals File Suit Over Its New Software," *Washington Post*, 8 February 2000, p. E3.

<sup>57</sup> See, e.g., *Rowland and Burton v. America Online*, Sup. Ct. Wash. (King County), No. 00-2-04648-1-KNT (24 Feb 2000).

<sup>58</sup> "Limited testing by [ITD] staff members has shown that AOL 5.0 can also disrupt normal usage of U-M dial-up access, U-M LAN access, and use of other Internet Service Provider (ISP) services." "Current news from the U-M Information Technology Division," at <http://www.itd.umich.edu/news>.

access the internet through any other ISP or internet access company, thereby eliminating competition in the internet access provider market.”<sup>59</sup>

#### **3.4.4. TW / Disney /ABC Dispute**

In May of this year, Time Warner used its monopoly power in local MVPD markets to foreclose Disney from access to distribution to 3.5 million homes in seven local markets. This naked exercise of power appeared to be an attempt to tilt negotiations concerning content fees Time Warner would pay to Disney. With the negotiations deadlocked, Disney had proposed that the deadline be extended 24 days. Instead, viewers tuning into ABC channels found a blue screen with the message, posted by Time Warner, “Disney has taken ABC away from you... Disney has pulled the ABC TV signal off Time Warner Cable systems...” The move occurred during a sweeps month, a critical ratings period, and at a time when Disney was scheduled to air (and consumers expected to see) the season finales of many of its series, and the Kentucky Derby. The FCC ruled that Time Warner violated FCC rules prohibiting deletion of a local commercial television station during a sweeps period. FCC Chairman Kennard said that “The television sets of average consumers should never be held hostage in these disputes.” Senator John McCain, head of the Senate Commerce Committee, scheduled hearings to address the issue New York Mayor Rudolph Giuliani condemned Time Warner as an “out-of-touch monopoly,” and other politicians either urged Time Warner to restore ABC or threatened to hold hearings on the issue. Time Warner ultimately bowed to public pressure just before the FCC was about to rule in favor of Disney’s request to force Time Warner to restore ABC. In the 39 hours that Time Warner blacked out ABC, Disney lost about \$4 million dollars in advertising revenue.<sup>60</sup>

#### **3.4.5. Foreclosing Advertising Space From Competitors**

Both AOL and Time Warner have blocked competitors’ advertising from their systems. At least two of AOL’s content partners terminated long-term relationships with AOL after AOL strictly enforced its prohibition on content partners’ providing advertising to other ISPs. They allege that AOL routinely bullies smaller businesses into accepting its terms. AOL’s leverage over the smaller firms is derived from its power in the portal market. The executive director of the nonprofit Center for Media Education says that “Those Web sites that don’t have resources to market themselves like big media

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<sup>59</sup> *Rowland and Burton v. America Online.*

<sup>60</sup> The loss arises due to the fact that advertisers who bought ads during the blackout period will have to be compensated in the future with free ads. The New York Times cites media industry executives as saying that ABC could expect to lose \$2 to \$3 million per day in advertising revenues due to the blackout; I averaged these figures and then prorated the result for 39 hours. See “Blackout of ABC on Cable Affects Millions of Homes,” New York Times, 5/2/2000, and “Heavily Pressured Time Warner Puts ABC Back on Cable, for Now,” New York Times, 5/3/2000, and “FCC Wallops Warner for ‘Sweeping’ Out ABC,” NYPost.com, <http://208.248.87.252/05042000/3279.htm>.

companies will fade into the digital twilight.”<sup>61</sup> In a similar move, Time Warner Cable also terminated advertising by a local ISP in upstate New York because it competed with the Time Warner-affiliated ISP Road Runner there.<sup>62</sup>

## **4. Anti-Competitive Effects of the Merger**

### **4.1. Monopolization of Online Services**

#### **4.1.1. Horizontal Concentration**

The merger will unite the economic interests of AOL and Road Runner, eliminating one of the few firms that has the potential to constrain AOL’s power in the future. Prior to the merger, Road Runner was particularly well-positioned to challenge AOL because of its first-mover advantage in broadband online services, the extent to which it has developed its portal services, and its contracts with local cable operators that give it exclusive access to cable broadband facilities that pass 30 million U.S. homes.<sup>63</sup> Assuming Road Runner’s market share in its areas is the same as the nationwide share for cable provision of broadband, Road Runner likely has a 70-88% share of broadband access services in its markets.<sup>64</sup> Being the access service provider also confers a specific advantage: the firm is the physical gateway to the Internet, giving it the first opportunity to capture the customer as the content distribution (virtual) gateway to the Internet.

In addition to eliminating direct competition from Road Runner in those significant parts of the country in which it currently offers service, the merger will eliminate competitive pressure by Road Runner as a potential competitor in the remainder of the country. Entry by Road Runner nationwide would not be difficult; it could be accomplished in one of two ways. First, Road Runner could simply unbundle its portal services and sell them to consumers who use a different ISP, as AOL does with its “bring your own access” service. Subscribers to this service would arrange for broadband access from, for example, a DSL provider, and could then enjoy Road Runner’s proprietary content by subscribing to its unbundled portal service.

The second way Road Runner could enter the market nationwide is to do what AOL is doing outside of the Time Warner cable distribution area: make arrangements with broadband last-mile transport suppliers in the areas of the country where it is not affiliated with cable operators, such as DSL providers, cable operators offering open access, and satellite providers, to offer bundled portal and broadband Internet access services.

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<sup>61</sup> See “AOL’s Squeeze Play,” CNET News.com, March 1, 2000, <http://news.cnet.com/news/0-1005-201-1556048-0.html?tag=st>.

<sup>62</sup> See “Cable Co. Won’t Run ISP’s Ads,” Central New York Business Journal (Dewitt, NY), February 18, 2000

<sup>63</sup> “These systems together pass approximately 30 million homes, almost all of which are in areas that will be upgraded and capable of receiving Road Runner by year-end 2000.” Road Runner’s online Company Profile at <http://www.rr.com/rdrun/>.

<sup>64</sup> See footnote 3 for sources.

Absent the merger, the relative ease with which Road Runner could enter the online services market nationwide would have acted as a constraint on the exercise of market power by AOL as it develops its broadband offerings; post-merger, Road Runner will exert no competitive restraint on AOL.<sup>65</sup>

The merger will harm consumers because it will lead to higher prices for online services. While many portals (such as Yahoo) do not currently charge users directly for their content aggregation and distribution services, others charge for aggregation and distribution of content either as a standalone service or bundled with Internet access. Firms that charge for aggregation and distribution include the two dominant broadband firms, Road Runner and [Excite@Home](#). AOL, of course, charges for its online services. Thus, particularly when presented as a complete package, online services have substantial consumer value, and price is likely to increase if competition is harmed by the AOL/TW merger.

Consumers will suffer another harm from the increased concentration in the online services. Service providers with market power will be able to increase the cost of advertising and marketing products. Ultimately, some or all of the higher cost of goods advertised on the properties of a dominant firm will be passed on to consumers.

Even if Road Runner were not a potential entrant outside its current distribution area, the effects of the reduction in horizontal competition would be borne by consumers nationwide. The elimination of an important competitor in the market, even one whose distribution area is not nationwide, would permit AOL to increase its price for advertising, and advertisers would recover this increased cost from consumers nationwide.

## **4.1.2. Vertical Foreclosure**

### **4.1.2.1. Content Foreclosure and Discrimination**

Time Warner will have the ability to withhold content, or provide content at disadvantageous terms, to online service providers in competition with AOL, contributing to AOL's power in the online services market.

Time Warner is the largest supplier of media content in the world.<sup>66</sup> As an example, AOL and Time Warner together will control six of the top 15 news, information and

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<sup>65</sup> In many instances, divestitures can solve the problem otherwise created by the combination of horizontal competitors. Here, however, that is not likely to be the case. Road Runner depends on its exclusivity arrangements with co-owned cable companies and the content of Time Warner. Road Runner without Time Warner is not likely to be nearly as effective a competitor. For one thing, it would have no guarantee of non-discriminatory access to customers over Time Warner cable facilities that would be necessary to compete effectively against AOL / Time Warner.

<sup>66</sup> "Mergers, Divestitures and the Internet: Is Ownership of the Media Industry Becoming too Concentrated?", Benjamin M. Compaine, Telecommunications Policy Research Conference, September 26, 1999, <http://www.bcompany.com/ben/tprc99.htm>, Based on

entertainment digital properties and six of the top 50 Web domains.<sup>67</sup> As the online services market increasingly serves consumers with broadband access, the content that consumers will demand will include music and video, which I call “broadband content.” Time Warner controls the rights to a substantial fraction of broadband content. Time Warner is one of the major music distributors in the world.<sup>68</sup> Because music recordings are differentiated products (i.e. each is “unique”), and because of the size of its holdings, Time Warner has some degree of market power in music. Time Warner owns several premium or “crown jewel” cable networks, including CNN, TBS, TNT, the Cartoon Network, and HBO. It also, of course, owns one of the largest movie studios, Warner Brothers.

Foreclosure, or discriminatory pricing of this much content could severely disadvantage AOL’s rivals in the online services market. Web sites make money by supplying advertisers with consumers’ “eyeballs.” In order to attract consumers, Web sites must provide them with attractive content. Since Time Warner controls a significant share of the most attractive broadband content, it may be able to raise the cost to AOL’s rivals of attracting “eyeballs.”<sup>69</sup> This would disadvantage AOL’s rivals, and increase AOL’s power in the online services market.

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Chapter 10 of *Who Owns the Media?*, 3rd ed., 2000. In its investigation of the Time Warner-EMI merger, the European Commission, said that “‘strong indications’ also exist that Time Warner-EMI could become dominant in the digital delivery of music over the Internet, particularly because of the proposed AOL-Time Warner merger.” Reuters, “EU digs into Time Warner-EMI merger plans,” June 14, 2000, <http://news.cnet.com/news/0-1005-200-2077807.html?tag=st.ne.1002.bgif.ni>

<sup>67</sup> “Traffic to AOL-Time Warner Sites,” The Standard, June 26, 2000 at [www.thestandard.net/article/display/0,1151,8712,00.html](http://www.thestandard.net/article/display/0,1151,8712,00.html).

<sup>68</sup> Time Warner is one of the “Big Five” music recording companies, which sell about 7 out of 8 CDs; Warner Music Group’s share was 17.3% in 1998. (Compaine, Benjamin, and Douglas Gomery, “*Who Owns the Media*,” Third edition, 2000, Lawrence Erlbaum Associates, Mahway, NJ, pp. 319-320.) Warner/Chappell Music Publishing is a leader, with copyrights valued at half a billion dollars. (*Ibid.*, p. 334). Warner Music Group’s record labels include Warner Bros. Records, Atlantic, and Electra. (<http://www.timewarner.com/corp/about/music/wmg/selected.html>).

<sup>69</sup> Economists recognize “raising rivals’ cost” as a strategy for acquiring market power: “To a predator, raising rivals’ costs has obvious advantages over predatory pricing. It is better to compete against high-cost firms than low-cost ones. Thus, raising rivals’ costs can be profitable even if the rival does not exit from the market. Nor is it necessary to sacrifice profits in the short run for ‘speculative and indeterminate’ profits in the long run. A higher-cost rival quickly reduces output, allowing the predator to immediately raise price or market share. Third, unlike classical predatory pricing, cost-increasing strategies do not require a ‘deeper pocket’ or superior access to financial resources. In contrast to pricing conduct, where the large predator loses money in the short run faster than its smaller ‘victim’, it may be relatively inexpensive for a dominant firm to raise rivals’ costs substantially... Moreover, unlike predatory pricing, cost-increasing



Concern about vertical leveraging of proprietary content was reportedly quite high in the European review of the proposed Time Warner / EMI merger. In that setting, EMI reportedly pledged that for three years it would not provide preferential access to its music to Internet service providers affiliated to AOL-Time Warner.<sup>70</sup> The collapse of the Time Warner-EMI merger moots that pledge, yet the merged AOL-Time Warner would still be capable of much the same harm to consumers, even without EMI.

As noted above, the online services market is similar to the MVPD market: both online service providers and MVPDs are aggregators and distributors of content. The potential for foreclosure of content foreseen by the FTC when it opposed the TW / Turner merger<sup>71</sup> may be realized in the Internet content distribution market. In the TW / Turner consent agreement, Time Warner was prohibited from price discriminating against rival cable operators.<sup>72</sup> However, the merged firm is not barred from discriminating against rival portals. Such discrimination (and, moreover, foreclosure of content<sup>73</sup>) would harm competition in the online services market.

Similarly, in order to protect entrants in the MVPD market, FCC program access rules prohibit vertically-integrated cable programmers from price discriminating across distributors. No such rule exists for vertically-integrated Internet content providers/distributors.

#### 4.1.2.1.1. Related Examples

Two recent headline cases, one involving Intel and the other involving Microsoft, offer additional examples of firms using vertical leveraging to protect market power in industries with strong network effects. Intel sold microprocessors, chipsets, motherboards and other components to PC manufacturers (OEMs). Intel also shared technical information and advance product samples with OEMs to aid them in using Intel products in their computers. Intel clearly benefited substantially from doing so – this allowed the firms to introduce new computers more quickly. However, on several occasions different downstream firms interfered with Intel’s activities in its chosen

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strategies can often be made irreversible, and thus more credible.” (Salop, Steven and Scheffman, David, “Raising Rivals’ Costs”, *American Economic Review*, May 1983, Vol. 73 No. 2, at p. 267).

<sup>70</sup> Michael Mann, “EMI Aims for Deal with EU on Warner Music”, Reuters, 15 Sept 2000.

<sup>71</sup> See The Statement of Chairman Pitofsky and Commissioners Steiger and Varney, In the Matter of Time Warner Inc., Docket No. C-3709: “The complaint alleges that post-acquisition Time Warner and TCI would have the power to: ... (2) disadvantage competing MVPDs, by engaging in price discrimination.”

<sup>72</sup> FTC press release, “FTC Gives Final Approval to Time Warner/Turner Deal,” 2/7/97.

<sup>73</sup> Foreclosure of content is equivalent to setting prices so discriminately as to ensure rival distributors will not purchase it.

markets by asserting intellectual property rights against Intel.<sup>74</sup> In each instance Intel responded by cutting off the flow of information and advance product to the OEM. Thus, Intel used its bottleneck control over a necessary input in the OEM market to protect its power in various component markets.

Microsoft's actions against IBM, highlighted in the recent Department of Justice case against Microsoft, show similar vertical leveraging. IBM's negotiations with Microsoft over a license to install the (then) forthcoming Windows 95 operating system on the IBM PC Company's products proceeded smoothly until IBM acquired Lotus and announced that it would promote Lotus' SmartSuite office productivity applications suite and bundle them on IBM PC Company PCs. Microsoft responded by delaying negotiations for the Windows 95 license and explicitly telling IBM that IBM promoting its own software instead of Microsoft's software was a problem in the companies' relationship and that various issues between the companies could be more readily resolved if IBM would refrain from promoting its own products.<sup>75</sup>

#### **4.1.2.2. Foreclosure of Content Suppliers From Distribution Channels**

Uniting the interests of AOL and Road Runner will increase monopsony power<sup>76</sup> in the upstream market in which Internet content is sold to online service providers. The merged firm can use this power to foreclose content producers from access to distribution channels, to the harm of rival content producers. AOL will have the incentive and ability to favor its own content and to discriminate against the content of rival producers. Given AOL's power, foreclosure from its services may deny these content producers the critical mass they need to become viable. Because of the vast size of the Internet, favorable access on AOL's portal may well be critical to success.

In the parallel market in which video programming is sold to MVPDs, the FTC recognized this danger due to the aligned interests of Time Warner and TCI when Time Warner and Turner merged, saying that "post-acquisition Time Warner and TCI would have the power to: (1) foreclose unaffiliated programming from their cable systems to protect their programming interests."<sup>77</sup> Similarly, concern about monopsony power's anticompetitive effect on the diversity of content available has resulted in the imposition

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<sup>74</sup> Compaq Computer asserted that Packard Bell, and indirectly Intel, infringed Compaq intellectual property (IP) relating to motherboards. Digital Computer and Intergraph each asserted Intel had infringed IP they owned relating to microprocessors (Intergraph initially asserted that other OEMs infringed the Intergraph IP and only made assertions directly against Intel after Intel began withholding information and advance product samples from Intergraph).

<sup>75</sup> See Judge Jackson's Findings of Fact in the *U.S.A. v. Microsoft*, ¶116-132.

<sup>76</sup> Pure monopsony is the flip-side of pure monopoly: there is a single buyer. If there are few or very large buyers in a market, economic inefficiency is likely.

<sup>77</sup> See The Statement of Chairman Pitofsky and Commissioners Steiger and Varney In the Matter of Time Warner Inc., Docket No. C-3709.

of a cap on the proportion of cable subscribers any single cable operator may serve. The cap on the size of cable companies is 30%; AOL's and Road Runner's combined share of the online services market, measured by subscribers, is 41%.

Similarly, preferential treatment by AOL is so valuable to other content providers that these providers may agree to distribute their content solely on AOL in exchange for that preferential treatment. The FTC recognized this risk, too, in its review of the Time Warner/Turner merger, prohibiting the post-merger firm from obtaining exclusive rights in third party content marketed to MVPD competitors.

#### **4.1.2.3. Both Time Warner and AOL Have Practiced Vertical Foreclosure**

Both Time Warner and AOL have demonstrated a proclivity for the exercise of market power by foreclosing to their services or facilities. As described above (see Section 3.4.4), Time Warner foreclosed access to its cable distribution facilities to ABC in order to gain leverage in negotiations with Disney. Both Time Warner and AOL have foreclosed access to their distribution facilities to competing advertisers (see Section 3.4.5). And AOL has foreclosed access to its instant messaging network to competing service providers (see Section 3.4.1).

### **4.2. Harm to Competition in Broadband Conduit**

The merger will cause harm in local markets for broadband conduit, particularly, but not exclusively, within Time Warner Cable's distribution area. Currently, only two technologies are widely available for broadband last-mile conduit, cable modem and DSL. Of these two, to date, cable modem service has a dominant share nationally, 78%-88%.<sup>78</sup> Despite the hopes some have pinned on other technologies, good alternatives to cable and DSL are not likely to be widely available in the foreseeable future.<sup>79</sup>

Time Warner is the second largest provider of broadband conduit nationwide, and the dominant broadband conduit provider in its geographic coverage area. ISPs and OSPs who are unaffiliated with cable television system owners have not been able to offer high-speed services over cable modems. In fact, prior to this announced merger, AOL led the charge to require cable systems to provide "open access" to other ISPs. Absent

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<sup>78</sup> See footnote 3.

<sup>79</sup> Forrester Research recently predicted that in 2005, cable modem and DSL will retain 86% of the local broadband transport markets. Fixed wireless service, which is plagued by interference from buildings or even large trees between an antenna and a home, is likely to remain a lower-priced niche technology. A Forrester Research analyst said, "Cable and DSL are going to jostle for the leading role for the foreseeable future." (See "Fixed-wireless technology cast in supporting role," CNET News.com, 10/4/2000, <http://news.cnet.com/news/0-1004-200-2931019.html?tag=st.ne.1430735..ni>). For a detailed discussion of the broadband last-mile transport market, see Appendix A of my Ex Parte Comments in CS Docket No. 99-251, "Investment in Cable Broadband Infrastructure: Open Access is not an Obstacle," November 5, 1999.

this merger and “open access,” AOL’s primary method of delivering high-speed services would likely be DSL. Through this merger, however, AOL is acquiring one of the largest cable system operators in the nation and its interest in promoting services that compete with cable system services, including cable modem services, will be reduced.

This effect will be substantial within Time Warner’s cable service areas. By using Time Warner cable modem service, AOL will avoid paying a DSL provider for broadband last-mile transport. This fee is a substantial portion of end-users’ subscription fees, perhaps 70% of the \$40 broadband ISPs typically receive from end-users.<sup>80</sup> In addition, AOL may be able to charge more for broadband ISP service if it succeeds in reducing competition in the broadband ISP market by foreclosing cable modem access from competing broadband ISPs, or providing it to them at disadvantageous terms.

In general, to the extent that there are economies of scale in promoting DSL usage (as there are, for example, through national advertising), AOL’s reduced incentive to promote DSL in the large portion of the country with Time Warner cable facilities will extend to rest of the country as well. AOL will do less to develop, promote and expand customer DSL service nationwide.

Active competition between broadband conduit suppliers is very important to consumer welfare. Broadband Internet service will surely supplant narrowband in the future, so consumers will become increasingly dependent on broadband conduit suppliers.<sup>81</sup> For most consumers, the only facilities-based suppliers of broadband conduit will be the incumbent local cable operator and telephone company providers of DSL. If DSL fails to provide vigorous competition, the incumbent local cable operator will have monopoly power. As if to provide a foretaste of what the exercise of monopoly power by cable operators may be like, Time Warner Cable required, in deals with many smaller ISPs, that it be given 75% of the ISPs’ subscriber revenue and 25% of their revenue from other sources, such as advertising in order for the ISPs to gain access to Time Warner Cable’s cable modem facilities. More ominously, Time Warner Cable also required approval control over the ISPs’ home pages, and demanded “prominent above-the-fold areas on the home page of the service for use.”<sup>82</sup> EarthLink says that Time Warner Cable not only demanded a large share of its advertising revenue as a condition of acquiring cable

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<sup>80</sup> Merrill Lynch says AOL reached agreements with RBOCs for DSL transport for \$25 - \$28 per subscriber, which is 63% - 70% of a \$40 monthly subscription fee. (Merrill Lynch analyst’s report, “AT&T Gets UMG and (Amazingly) Comcast JV Without Bidding War – Very Positive!,” 5/7/99). Credit Suisse First Boston Corporation says MediaOne takes 70% of the \$40 charged consumers by Road Runner (“Media One Group,” Credit Suisse First Boston Corporation report, 1/7/99). Jupiter Communications says that @Home pays 70% - 80% of the monthly subscriber fee to the cable broadband provider (“Last Mile Strategies,” Jupiter Communications, August, 1998).

<sup>81</sup> See footnote 11.

<sup>82</sup> See “Paper: Time Warner Sets Terms for Access,” Yahoo News, 10/8/2000, [http://dailynews.yahoo.com/h/nm/20001008/wr/timewarner\\_dc\\_3.html](http://dailynews.yahoo.com/h/nm/20001008/wr/timewarner_dc_3.html), reporting on a story in the Washington Post.

modem access, it also demanded the ability to set the price of EarthLink's service.<sup>83</sup> Another ISP, NorthNet, voiced many of the same concerns, and, in addition, said that "Time Warner insisted that it be given a great deal of information before the discussion started," and that "the pre-qualification letter made it clear that the ISP's did not have any right to interconnect, rather Time Warner was picking and choosing who would go on its systems."<sup>84</sup>

### **4.3. Controlling and Manipulating Standards**

One of the most important ways that the AOL / Time Warner merger may hurt consumers is through the proprietary control and manipulation of service, application and data format standards. It was primarily Microsoft's control of the proprietary standards for application interface to the Windows operating system that allowed it to maintain and extend its monopoly power, and to harm competition and consumers, as found by Judge Jackson in *U.S. v. Microsoft*.

#### **4.3.1. Strategies for Acquiring Market Power in Network Markets**

The boundaries of networks are defined by compatibility, and, often, compatibility is a strategic choice by firms. The size of a communications network is determined by the number users that employ a compatible communications technology. The boundaries of "software" markets are determined by the "hardware" with which the software is compatible. Since the size of networks is determined by the compatibility choices of firms, and larger networks are more valuable to consumers, firms' choices with respect to compatibility are important determinants of market performance.<sup>85</sup>

The characteristics of network markets induce strategic behavior in firms that would not work, or would work less well in markets without network effects. Low prices for newly-introduced durable goods ("penetration pricing") is common in network markets, because acquisition of a large installed base early may cause the market to tip, conferring monopoly profits later.<sup>86</sup> The pre-announcement of products may cause consumers to

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<sup>83</sup> See "EarthLink Finds Open Access to Time Warner Elusive," Yahoo News, 9/27/2000, [http://dailynews.yahoo.com/h/nm/20000929/wr/timewarner\\_earthlink\\_dc\\_2.html](http://dailynews.yahoo.com/h/nm/20000929/wr/timewarner_earthlink_dc_2.html).

<sup>84</sup> See "AOL, FTC Looking at Possible Deal by Month's End," Yahoo News, 10/11/2000, [http://dailynews.yahoo.com/h/nm/20001011/wr/timewarner\\_usa\\_dc\\_1.html](http://dailynews.yahoo.com/h/nm/20001011/wr/timewarner_usa_dc_1.html)

<sup>85</sup> See Katz, Michael and Shapiro, Carl, "Network Externalities, Competition and Compatibility," *American Economic Review*, July 1985, 75, 424-40 at pp. 424-425, 434.

<sup>86</sup> See Besen, Stanley, and Farrell, Joseph, "Choosing How to Compete: Strategies and Tactics in Standardization," *Journal of Economic Perspectives*, Spring 1994, 8, pp. 117-131 at p. 122. Similarly, once a firm has become established in a network market, predatory pricing in the face of entry by a firm with a new, incompatible technology may be rational because recoupment of the lost profits by pricing supracompetitively is possible once the installed base is large enough to create a barrier to entry. See Farrell, Joseph, and Saloner, Garth, "Installed Base and Compatibility: Innovation, Product

defer acquisition of existing durables, resulting in the adoption of a technology that decreases social welfare, and that would not have been adopted absent the preannouncement.<sup>87</sup> Vertical integration, or exclusive contracts for access to complementary goods can serve to deny competing durables manufacturers access to complementary products, enhancing the durable supplier's market power. For example, Nintendo obtained contracts with third-party game developers, foreclosing its rivals from access to software.<sup>88</sup>

Perhaps most significantly, firms decide whether to make their products compatible with the products of other firms. When firms decide to make their products compatible, the network bounded by the standards they adopt encompasses all of their products, and the firms compete against each other within the standard they have agreed to. In contrast, a firm may decide to keep its product incompatible, and to establish competition between standards. Since network markets tend to tip, conferring a monopoly on the winner of the standards battle, this strategy is favored by firms that are positioned to win the standards battle. These include firms with a large installed base, firms with good technology, and firms with a reputation that will lead consumers to expect them to win the standards battle.<sup>89</sup> Some firms may have the ability to unilaterally set standards for their industries; IBM and AT&T are widely believed to have this power,<sup>90</sup> and Microsoft has emerged as another such firm.<sup>91</sup> Not surprisingly, economists have recognized that manipulation of standards or the decision to keep products incompatible can be anticompetitive.<sup>92</sup>

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Preannouncements, and Predation," *American Economic Review*, December 1986, 76, pp. 940-55 at p. 943, 950-951.

<sup>87</sup> The preannouncement can prevent the "old" technology from acquiring an installed base that would have acted as an entry barrier absent the preannouncement. This may reduce welfare by "stranding" users of the old technology. See Farrell, Joseph, and Saloner, Garth, "Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation," *American Economic Review*, December 1986, 76, pp. 940-55 at pp. 942, 948-949, and Farrell, Joseph, and Saloner, Garth, "Economic Issues in Standardization," in *Telecommunications and Equity: Policy Research Issues*, J. Miller (ed.), Elsevier Science Publishers, North Holland, 1986, p. 171.

<sup>88</sup> See Katz, Michael and Shapiro, Carl, "Systems Competition and Network Effects," *Journal of Economic Perspectives*, Spring 1994, 8, pp. 93-115 at p. 107.

<sup>89</sup> See Besen, Stanley, and Farrell, Joseph, "Choosing How to Compete: Strategies and Tactics in Standardization," *Journal of Economic Perspectives*, Spring 1994, 8, pp. 117-131 at p. 126.

<sup>90</sup> Farrell, Joseph, and Saloner, Garth, "Economic Issues in Standardization," in *Telecommunications and Equity: Policy Research Issues*, J. Miller (ed.), Elsevier Science Publishers, North Holland, 1986, p. 171.

<sup>91</sup> Judge Jackson found that Microsoft behaved anticompetitively by manipulating the standards for the Java programming language, and the standards for the HTML markup language. In addition, in recent years there have been other examples of firms with market power resisting open standards while the trailing firms push hard for such

#### 4.3.2. An Example of AOL Time Warner's Ability to Manipulate Standards to Acquire Market Power

The merger of AOL with Time Warner may create opportunities for monopolization that would not be available absent the merger. I present one example, the delivery of audio content over the Internet.

Current format standards for the distribution audio over the Internet, such as MP-3, do not provide adequately for protection of copyrights, and this has caused the delay of large-scale commercial introduction of this service. AOL and Time Warner have announced that one of the “benefits” of their merger is that the merged firm will resolve this problem.<sup>93</sup> In fact, this “benefit” may create a monopoly for AOL in Internet audio distribution.

AOL could develop a proprietary, incompatible format for the distribution of commercial audio content delivered over the Internet that provides for adequate protection of copyrights, and embed it in its own audio player. Then, it could release Time Warner's catalog of music exclusively in AOL's proprietary format; anyone wishing to obtain and listen to Time Warner's music over the Internet would have to use AOL's player. Network effects would push the market towards AOL's format becoming a *de facto* standard: the larger the catalog of music available in AOL's proprietary format, the larger the demand for AOL's player, and the larger the installed base of AOL's player, the more attractive AOL's proprietary format is to other audio content providers. If AOL has a

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standards. See later in this section for such actions taken by AOL. For control of standards by dominant firms, see, e.g., Charles H. Ferguson and Charles R. Morris, *Computer Wars: How the West Can Win in a Post-IBM World* (Times Books: New York, 1994), for an early study of how Microsoft gained its power by controlling and making proprietary the architectural standards for operating system software.

<sup>92</sup> Ordover and Willig note that “incompatibilities reduce competition, and the creation of incompatibilities may increase the monopoly profits of a firm that has monopoly power over one or more of the components.” Ordover, Janusz, and Willig, Robert, “An Economic Definition of Predation: Pricing and Product Innovation,” *Yale Law Journal*, 1981, 91, pp. 8-53 at p. 33. Jean Tirole says that “[A] manufacturer that makes its system incompatible with other systems imposes a *de facto* tie-in of its various components.” Tirole, Jean, *The Theory of Industrial Organization*, MIT Press, Cambridge, MA, 1988, p. 335. Farrell and Saloner note that changing standards frequently may be predatory, and may raise rivals' costs. See Farrell, Joseph, and Saloner, Garth, “Economic Issues in Standardization,” in *Telecommunications and Equity: Policy Research Issues*, J. Miller (ed.), Elsevier Science Publishers, North Holland, 1986, p. 171.

<sup>93</sup> “Part of the reason that online music distribution has not yet achieved widespread availability is the lack of inter-industry standards on software and encoding. AOL Time Warner's combined expertise can help expedite the development of a technological platform which will permit consumers, legally and securely, to download music over the Internet.” Applications of America Online, Inc and Time Warner Inc. for Transfers of Control, Supplemental Information, March 21, 2000, ¶IVB2 p. 32.

proprietary standard, there is only one market equilibrium in which one player will play all of the music on the Internet, and in which content suppliers are able to provide a format that all consumers can use, and in that equilibrium, AOL's player has a monopoly. If the market tips in this way, AOL would ultimately be able to charge audio content suppliers supracompetitive prices for the use of its proprietary format and audio downloads, and may charge for audio streaming.

AOL would have many of the advantages that tend to bring victory in standards battles. In this market, penetration pricing is expected by consumers, since players are currently distributed for free. AOL has other means in addition to penetration pricing to develop the large installed base of players: AOL's large share of the online services market is perhaps the world's best distribution channel for audio players. AOL could offer players for free on its portal, and bundle them with the software distributed to new subscribers and subscribers who upgrade their AOL software; a pretext for requiring an upgrade would place the player on all AOL's subscribers' computers. AOL could also come to the market with a large installed base of audio content encoded in its proprietary format.

AOL is well-positioned to create the expectation that it will win the standards battle: AOL is the preeminent firm in the Internet industry, and has created a reputation as a standards-setter in the instant messaging market. Its large share of the online services market furthers its ability to influence expectations by disseminating information on its Web properties. And AOL's announced intention to "solve" the problem of audio standards may already have influenced expectations that its standard will prevail. These advantages could well provide AOL with an insurmountable lead, causing the Internet audio market to tip in its direction.

Absent the merger, AOL may not be able to win the standards battle. It could, it's true, create a proprietary standard and distribute the player without being vertically integrated with Time Warner, and there is some possibility that Time Warner could be persuaded to contract to encode all of its content in AOL's format absent the merger. However, there are obstacles to such a contract that would not be present for the vertically-integrated firm. It would require a long-term, coordinated effort with uncertain payoffs, and an explicit contract to make Time Warner's content incompatible with all players but AOL's might raise antitrust concerns that could escape scrutiny if the arrangement is internal.

If AOL succeeds in securing a monopoly on Internet audio distribution, consumers will surely be harmed, and it is likely that social welfare will be reduced.<sup>94</sup> AOL will have the

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<sup>94</sup> In the economics literature, the welfare effects of monopolization of network markets is ambiguous, due to two countervailing effects: (i) when entrants with an incompatible standard enter the market, growth in the installed base of users of the "old" technology is reduced or eliminated, reducing network effects for users left "stranded" with the old technology (see Katz, Michael and Shapiro, Carl, "Systems Competition and Network Effects," *Journal of Economic Perspectives*, Spring 1994, 8, pp. 93-115 at p. 108), and (ii) entrants may provide variety enjoyed by consumers with heterogeneous tastes (*ibid.* p. 106). However, neither of these two effects is likely to ameliorate the effect of monopolization of Internet audio. There is currently no existing standard for distribution of audio content that provides adequate protection for copyrights, so "stranding" of users



power to charge supracompetitive prices for all of the components of the system – the price content suppliers pay for use of the proprietary standard, and the prices consumers pay for the player and content. As a practical matter, however, it could capture all of the monopoly profit through the price it charges content suppliers for the use of the standard; consumers would ultimately pay higher prices for content, but AOL would escape the public relations harm of raising the prices consumers pay directly to it.

Of course, with the rapid proliferation of new information and communications services delivered over the Internet, there will be many standards that are potentially subject to control and manipulation by an online service provider with significant market power. Just within the foreseeable set of emerging products, there will be vulnerable standards for commercial (protected) streaming video; instant messaging interoperability (or not, if AOL has its way); interactive TV (currently being led by AOLTV), and shared calendars.

## 5. Other Effects of the Merger on Consumers

As a result of greater concentration in the online services market and monopsony power in the upstream content market, there will be less variety in the content available on the Internet to consumers. The U.S. Congress, in permitting certain limited joint ventures for competing city newspapers, was very clear on the perceived public importance of having diversity in the sources of and editorial presentation of media content.<sup>95</sup> Concentrating content in the hands of one or a few broadband portals will be in direct contravention of this public objective. Some of the harm from lack of diversity may be intentional, some may be inadvertent, but the net effect is to reduce the quality and variety available to consumers. As a simple example of the risks, AOL's "kid filter" lets users into the Republican National Committee Website, but not the corresponding site for the Democrats; the youth filter lets you into the Colt Arms company, Browning Arms company and NRA sites, but not the Coalition Against Gun Violence or Million Women

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of the existing standards is inevitable. Moreover, the cost of switching to a new player is negligible. And consumers are unlikely to have strong preferences for variety in standards for audio distribution, and where consumers have little preference for one standard over another, incompatibility decreases social welfare. ("In some cases... such as VHS vs. Beta in videocassette recorders, any loss of variety seems a minor price to pay to achieve compatibility." (*Ibid.*, p. 106)).

<sup>95</sup> "In the public interest of maintaining a newspaper press editorially and reportorially independent and competitive in all parts of the United States, it is hereby declared to be the public policy of the United States to preserve the publication of newspapers in any city, community, or metropolitan area where a joint operating arrangement has been heretofore entered into because of economic distress or is hereafter effected in accordance with the provisions of this chapter." Newspaper Preservation Act of 1970 (15 USC Chapter 43).

March sites. Intentionally or not, one author concluded that the AOL filters seem to have a strong anti-“liberal” bias.<sup>96</sup>

## 6. Efficiency Justifications

In their Public Interest Statement to the FCC, AOL and Time Warner claim two principal benefits of the merger for consumers: (i) the merger will spur the rapid development of the next generation of broadband services and content, and (ii) the merger will lead to a marketplace solution to the open access issue. However, the parties give no compelling reason why the merger will do the first, and the second is in fact a harm, not a benefit to consumers.

The parties’ state that “the rapid development of the next generation of broadband services and content” is “the paramount goal” of the merged corporation,<sup>97</sup> and there is little reason to doubt it. Moreover, we are assured that AOL Time Warner will “remain committed to closing the digital divide,” and “will work together to provide parents, teachers and schools with unprecedented tools and content for educating the nation's youth and bringing the digital revolution to every child and into every home and school.” Those are all good things. However, as a statement of the benefits that will result from the merger, they are vacuous, because there is no explanation of why the merged firm would have any greater incentive or ability to do them than the unmerged firms would, and there is good reason to believe that the benefits will accrue more to AOL/Time Warner and less to consumers than they would if the firms did not merge.

The parties mention “synergies resulting from the combination of AOL and Time Warner,” but they never give a cogent, reasoned explanation of what those “synergies” are, or why the merged firm will have them. They say that the merger will internalize the “substantial risks of trying to develop innovative products that consumers want,” and thereby “enhance the chances for success” of their endeavor, but they do not provide any reasoned analysis of how the merged firms’ efforts would be less risky than the unmerged firms’. Thus, these claimed benefits are also vacuous.

While there is no evidence that the development of the next generation of content and services will be enhanced by the merger, the merger *will* make it less likely that *consumers* will enjoy as great a benefit from them as they would from the unmerged firms, because of the incentives for foreclosure and manipulation of standards that the merger will bring. If these practices emerge, the benefits of the development of the next generation of broadband content and services will be curtailed, and will be shifted toward AOL Time Warner, away from consumers.

The parties’ own example of a way in which the proposed merger will “help spur the development and delivery to the marketplace of next-generation products and services” illustrates how consumers will, in fact, be harmed by the merger. They claim the proposed merger will help “solve” the problem of delivering copyrighted audio and other

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<sup>96</sup> See [www.news.com/Perspectives/Column/0,176,421,00.html?tag=st.ne](http://www.news.com/Perspectives/Column/0,176,421,00.html?tag=st.ne), dated 4/24/00

<sup>97</sup> Public Interest Statement of AOL and Time Warner to the FCC in the Matter of the America Online and Time Warner for Transfers of Control, Section III.

content via the Internet.<sup>98</sup> There is no economic reason why AOL and Time Warner need to become even larger, and even more vertically-integrated in order to distribute broadband Internet content. As set forth above, the merger does make it more likely that AOL/TW will exert proprietary control over standards that promote its private interest. This is not a benefit, but will, in fact, harm consumers, who would be better-served by the establishment of open standards, set by the collective effort of all industry stakeholders, not by a single dominant firm interested only in its bottom line. In any case, investment in solving the so-called “problem” of distributing content has already been rapid and large, and the incentives for the industry as a whole to “solve” it are already huge.

Similarly, the other principal “benefit” claimed by the parties, a “marketplace solution to the open access issue,” will *not* benefit consumers, it will harm them. Prior to the merger, AOL was one of the most vociferous advocates of open access. As a direct result of the merger, AOL has reversed its position, and now advocates the right of cable companies to exercise their power and decide unilaterally which service providers shall be permitted to deliver service to customers over broadband last-mile transport. The AOL/TW “marketplace solution” is largely one it will control. It thus is a step backward from the level-playing field, non-discriminatory solution previously advocated by AOL.

## 7. Conclusion

There is a market for Internet online services, comprising access service and the aggregation and distribution of content. America Online pioneered this business, and is its most successful practitioner. AOL is the largest access provider in the U.S., and is the largest aggregator and distributor of Internet content. Bundled together, AOL commands the highest price in the industry which means that its share of subscriber revenues is substantially above its 40% share of subscribers. AOL also earns the highest share of Internet advertising revenue, nearly twice as much as the second firm.

Time Warner is the world’s largest owner of proprietary commercial media content. It is also the majority owner of Road Runner, the dominant broadband Internet online service in the geographic markets served by Time Warner Cable. Time Warner owns broadband physical facilities in many major U.S. markets, and in those markets is the dominant provider of broadband transport.

Thus, AOL and Time Warner enter the proposed merger as the largest and in some cases dominant participant in markets involving all four layers of Internet usage: content, aggregation and distribution, access service and conduit. If joined, horizontal concentration will substantially increase in aggregation and distribution of content and access service. The effects are likely to be even stronger going forward than the current static analysis shows, because Road Runner is poised to be a dominant firm in the entire online service market as consumers make the switch to high-speed Internet access.

In addition, there are several likely to be harmful vertical consequences from this merger. AOL/TW will be able to use content foreclosure, exclusion and preferential treatment in

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<sup>98</sup> See Applications of America Online, Inc and Time Warner Inc. for Transfers of Control, Supplemental Information, March 21, 2000, ¶IVB2 p. 32.

order to advantage its own online services (including interactive TV). Time Warner is already leveraging its control of bottleneck broadband local access facilities to increase its position in online services through Road Runner, and that vertical leveraging will likely increase and be more successful when Time Warner cable is paired with the known and successful AOL brand.

In addition to anticipated harmful price effects on consumers, perhaps the most serious harms will come in the form of standards for new applications and data formats that are controlled by AOL/TW in order to protect current market power, extend it into other markets, and maintain it as new products emerge. This is the path that Microsoft has followed, and AOL/TW will be poised to exert similar control over several standards essential for the provision of online services.