

SOCIAL NETWORKS, ADVERTISING, AND ANTITRUST

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INTRODUCTION

In the last five years, social media has become a dominant force on the Internet. Social networking websites, the most popular of which is Facebook, accounted for 20 percent of all time spent on the Internet in 2010.¹

However, it is not clear that so far this extraordinary growth has created an antitrust issue. There are two reasons for this. First, consumers do not pay for using these services on most social networking sites.² Second, firms are not spending large amounts of money trying to access consumers using these new channels.³ This is despite the fact that there are obvious marketing applications for a form of media that allows companies to observe potential consumers' social interactions.⁴

The reason that firms have not spent much money is not because they think that social media is not important. Instead, it is because most firms' commercial strategies for social media have emphasized the success of "earned reach," a strategy by which a brand develops its pool of subscribers organically and also aims to expand that pool by seeing existing subscribers share links with their social networks.⁵ Recent academic research, however,

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¹ Facebook accounted for one out of every seven minutes spent online as well as three out of every four minutes spent on social networking websites. *It's a Social World: Top 10 Need-to-Knows About Social Networking and Where It's Headed*, COMSCORE, 4, 8 (Dec. 21, 2011), http://www.comscore.com/Press_Events/Presentations_Whitepapers/2011/it_is_a_social_world_top_10_need-to-knows_about_social_networking (presentation available for download).

² E.g., FACEBOOK, <http://www.facebook.com> (last visited July 7, 2012) (noting registration is "free and always will be").

³ See *April 2009: Worldwide Social Network Ad Spending*, INTERACTIVE ADVER. BUREAU, http://www.iab.net/insights_research/industry_data_and_landscape/1675/804264 (last visited July 7, 2012); PricewaterhouseCoopers LLP, *IAB Internet Advertising Revenue Report*, INTERACTIVE ADVER. BUREAU 3 (Apr. 2010), <http://www.iab.net/media/file/IAB-Ad-Revenue-Full-Year-2009.pdf>.

⁴ Peter Wylie, *5 Ways to Use Social Data to Grow Your Business*, SOC. MEDIA EXAM'R (Jan. 27, 2011), <http://www.socialmediaexaminer.com/5-ways-to-use-social-data-to-grow-your-business>.

⁵ Catherine Tucker, *Social Advertising 2* (Feb. 15, 2012) (unpublished manuscript), available at <http://ssrn.com/abstract=1975897>; see also Sean Corcoran, *Defining Earned, Owned and Paid Media*,

has called into question this non-commercial strategy. Eytan Bakshy et al. emphasize that the kind of organic sharing that is presupposed by a non-commercial strategy is far more uncommon than previously supposed, and that only rarely are commercial messages reliably conveyed via social networks.⁶ A recent study shows that to attain the goal of virality, an advertiser may be forced to forfeit its message's commercial usefulness.⁷ Similarly, another study shows that when firms try to establish an organic social media presence, they are more often successful at engaging their own employees rather than their client base.⁸

Consequently, advertisers may be required to communicate their commercial message on social networks through the medium of paid advertising.⁹ A new type of advertising, called "social advertising," has recently appeared on sites like Facebook and LinkedIn.¹⁰ "A social ad is an online ad that 'incorporates user interactions that the consumer has agreed to display and be shared. The resulting ad displays these interactions along with the user's persona (picture and/or name) within the ad content.'"¹¹ The development of the social ad represents a profound technological advancement for advertisers.¹² Advertisers now have the ability to harness the force of an individual's social network to target advertising and attract their audience.¹³

Other work has shown that such "social advertising" can double the effectiveness of an advertiser's ad.¹⁴ This increase in efficacy bears significance because, in recent years, advertisers have often dismissed social networking websites as simply sites hosting "paid media"—in other words, paid advertising.¹⁵ The popular and marketing press have contributed to this with headlines like "Online Social Networks and Advertising Don't

FORRESTER (Dec. 16, 2009), http://blogs.forrester.com/interactive_marketing/2009/12/defining-earned-owned-and-paid-media.html.

⁶ Tucker, *supra* note 5, at 2; accord Eytan Bakshy et al., *Everyone's an Influencer: Quantifying Influence on Twitter*, MICH. INTERACTIVE & SOC. COMPUTING (Dec. 10, 2010), <http://misc.si.umich.edu/media/papers/wsdm333w-bakshy.pdf>.

⁷ Tucker, *supra* note 5, at 2; accord Catherine Tucker, *Ad Virality and Ad Persuasiveness* 31 (NET Inst., Working Paper No. 11-06, 2011), available at <http://ssrn.com/abstract=1952746>.

⁸ Amalia R. Miller & Catherine Tucker, *Active Social Media Management: The Case of Health Care 2* (Jan. 13, 2012) (unpublished manuscript), available at <http://ssrn.com/abstract=1984973>.

⁹ Tucker, *supra* note 5, at 2.

¹⁰ *Id.*; see also Riva Richmond, *LinkedIn's Social-Ad Misstep*, N.Y. TIMES (Aug. 17, 2011, 11:31 AM), <http://gadgetwise.blogs.nytimes.com/2011/08/17/linkedins-social-ad-misstep>.

¹¹ Tucker, *supra* note 5, at 2 (quoting *IAB Social Advertising Best Practices*, INTERACTIVE ADVER. BUREAU 4 (May 2009), available at <http://www.iab.net/media/file/Social-Advertising-Best-Practices-0509.pdf>).

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.* at 12.

¹⁵ *Id.* at 24.

Mix” and “Facebook Ad Click-Through Rates Are Really Pitiful.”¹⁶ The results of one study suggest, however, that “as social advertising develops this will change swiftly.”¹⁷ Specifically, social networks will have the ability to use their access to unique social network data to enlarge their share of advertising dollars.¹⁸

This Article asks whether a rapid expansion of social advertising will have potential antitrust implications. Part I of this Article presents definitions of social network websites and of the relevant market definition for advertising on social networking websites. Part II discusses network effects in social media advertising. Finally, Part III addresses the issue of antitrust and privacy in social networks.

II. WHAT IS THE MARKET?

A. *Defining a Social Media Website*

According to comScore,

Social networking accounted for nearly 1 in every 5 minutes spent online globally in October 2011, ranking as the most engaging online activity worldwide. Social networking sites now reach 82 percent of the world’s Internet population age 15 and older that accessed the Internet from a home or work computer, representing 1.2 billion users around the globe.¹⁹

Statistics like these suggest an impressive reach. They also suggest that it is easy to classify what is and what isn’t a “social media website.” However, on reflection, the definition is not so clear-cut—as discussed by Professor Spencer Waller, social networking sites tend to have an “I’ll know it when I see it” flavor.²⁰ Straightforward definitions that come to mind, such as “Internet websites that allow users to interact socially,” are problematic because they are too broad. Many websites, such as Yelp,

¹⁶ *Id.*; Darren Barefoot & Julie Szabo, *Facebook Ad Click-Through Rates Are Really Pitiful*, FRIENDS WITH BENEFITS (Apr. 7, 2008, 5:03 PM), <http://www.friendswithbenefitsbook.com/2008/04/07/facebook-ad-click-through-rates-are-really-pitiful>; Mitch Joel, *Online Social Networks and Advertising Don’t Mix*, SIX PIXELS OF SEPARATION (Feb. 8, 2008, 8:33 PM), <http://www.twistimage.com/blog/archives/online-social-networks-and-advertising-dont-mix>.

¹⁷ Tucker, *supra* note 5, at 24.

¹⁸ *Id.*

¹⁹ Press Release, comScore, Inc., *It’s a Social World: Social Networking Leads as Top Online Activity Globally, Accounting for 1 in Every 5 Online Minutes* (Dec. 21, 2011), *available at* http://www.comscore.com/Press_Events/Press_Releases/2011/12/Social_Networking_Leads_as_Top_Online_Activity_Globally.

²⁰ See Spencer Weber Waller, *Antitrust and Social Networking*, 91 N.C. L. REV. (forthcoming 2012) (manuscript at 6-7), *available at* <http://ssrn.com/abstract=1948690>.

allow users to interact socially but would not typically count as “social media websites.”²¹

Therefore, this Article uses a very loose definition that says that social network websites are ones that primarily exist to allow users to post a profile and exchange or broadcast messages and information with their friends and contacts. This would include websites like Facebook, Pinterest, Google+, Orkut, LinkedIn, Twitter, and Myspace.²² External to this definition would be websites such as YouTube or Yelp that have a social element but have another primary form of user-generated content (be it videos or reviews) that drives users to the website.

Even within this definition, it should be noted that there are very different types of social networking sites. A key distinction is that some social networking sites, like Facebook, focus on sharing and symmetric exchange between users, and some, like Twitter, promote asymmetric exchange between users and consequently follow more of a broadcast model.²³ There are also sites where users tend to post information passively, such as LinkedIn, compared to sites that require more daily engagement, like Pinterest.²⁴

B. *Market Definition*

The question of what is a social networking website is not quite the same question as what is the relevant market definition for advertising on social networking websites. Market definition is important when determining whether a particular social networking website has a monopoly over advertising.²⁵ There may be many other forms of advertising that are part of the same market, even if they are not explicitly ads on social networks.

The first question is whether advertising markets that are not specifically online should be considered as part of the relevant market. For a more detailed discussion of the issues, a recent paper specifically discusses the extent to which online advertising can be considered as a market that is

²¹ *Id.* (manuscript at 7).

²² Formerly known as “MySpace,” the company modified its name to “Myspace” in 2010. Press Release, Myspace, Inc., Meet the New Myspace (Oct. 27, 2010), available at <http://www.myspace.com/pressroom/2010/10/meet-the-new-myspace>. This Article refers to the company as Myspace, unless an article title, case caption, or quote uses the old name.

²³ Joshua Porter, *Relationship Symmetry in Social Networks: Why Facebook Will Go Fully Asymmetric*, BOKARDO (Mar. 29, 2009), <http://bokardo.com/p/1006>.

²⁴ Alex Wilhelm, *Getting Started with LinkedIn*, THE NEXT WEB (May 22, 2011), <http://thenextweb.com/insider/2011/05/22/getting-started-with-linkedin>; see Mark W. Smith, *How to Use Pinterest's Pinboard for the Web*, USA TODAY, <http://www.usatoday.com/tech/news/story/2012-01-17/how-to-pinterest-mark-smith/52615856/1> (last updated Jan. 17, 2012, 3:06 PM).

²⁵ See Waller, *supra* note 20 (manuscript at 5).

isolated from offline advertising markets.²⁶ The paper discusses two studies, which establish substitution patterns between offline and online markets both in terms of price and advertising effectiveness.²⁷ In both cases, the authors present evidence that offline advertising markets do regulate the operation of online advertising markets.²⁸ The evidence is mainly suggestive, but at the very least it supports the idea that online advertising markets should not be considered in isolation.

The second question is whether (and which) other online advertising markets should be part of the relevant market definition. Very loosely, the online advertising market is divided between search advertising and display advertising.²⁹ Search advertising—that is, ads that run alongside a search engine query—accounts for half of all online ad spending, and display (banner) advertising accounts for the other half.³⁰ Usually, ads on social networks are counted as part of display advertising.³¹ Table 1 summarizes the market share of display ad impressions of different websites. Obviously, social media is not close to being dominant in display advertising even if it is the largest server of ad impressions. It is also not clear why search advertising would not be an obvious competitor for display advertising in social media. In both cases, search engines and social networks use expansive data on their users' actions to serve relevant and timely ads.³²

²⁶ Avi Goldfarb & Catherine Tucker, *Substitution Between Offline and Online Advertising Markets*, 7 J. COMPETITION L. & ECON. 37, 38 (2011).

²⁷ *Id.* at 40-41; Avi Goldfarb & Catherine Tucker, *Advertising Bans and the Substitutability of Online and Offline Advertising*, 48 J. MARKETING RES. 207, 208 (2011); Avi Goldfarb & Catherine Tucker, *Search Engine Advertising: Channel Substitution When Pricing Ads to Context*, 57 MGMT. SCI. 458, 459-60 (2011).

²⁸ Goldfarb & Tucker, *supra* note 26, at 38.

²⁹ Federico Etro, *Understanding Online Advertising: Market Structure and Leadership*, EUR. BUS. REV., Mar.-Apr. 2012, at 96, 96, available at <http://www.intertec.org/Policy%20Papers/EBR2.pdf>.

³⁰ See Tiernan Ray, *GOOG: Nomura Starts at Buy; Aspects of a Telco Company*, BARRON'S (Mar. 5, 2012, 5:20 PM), <http://blogs.barrons.com/techtraderdaily/2012/03/05/goog-nomura-starts-at-buy-really-a-telco-company>.

³¹ See, e.g., Press Release, comScore, Inc., U.S. Online Display Advertising Market Delivers 1.1 Trillion Impressions in Q1 2011 (May 4, 2011), available at http://www.comscore.com/Press_Events/Press_Releases/2011/5/U.S._Online_Display_Advertising_Market_Delivers_1.1_Trillion_Impressions_in_Q1_2011.

³² Wylie, *supra* note 4.

Table 1: Top 10 U.S. Online Display Ad Publishers (Q1 2011)³³

	Ad Impressions (billions)	% Share
Facebook	346,455	31.2%
Yahoo! Sites	112,511	10.1%
Microsoft Sites	53,592	4.8%
AOL, Inc.	33,454	3.0%
Google Sites	27,993	2.5%
Turner Digital	18,050	1.6%
Fox Interactive Media	11,697	1.1%
Glam Media	10,207	0.9%
CBS Interactive	9,208	0.8%
Viacom Digital	9,051	0.8%

Evidence for the substitutability of search engine advertising, display advertising, and advertising on social networks is mainly anecdotal but reasonably compelling. Indeed, there are companies devoted to facilitating the easy transfer of advertising dollars between these three media. For example, HubSpot helps advertisers optimize between search, display and social network advertising by providing comparative return on investment figures between all three advertising types to help advertisers reallocate dollars towards the most effective medium for their product.³⁴ Figure 1 provides a screenshot of a typical user interface screen at HubSpot. The extent to which the digitization of data and advertising metrics has led to easy comparisons and substitution across media is evident. And the ease of substitution has important implications for likely market definition.³⁵

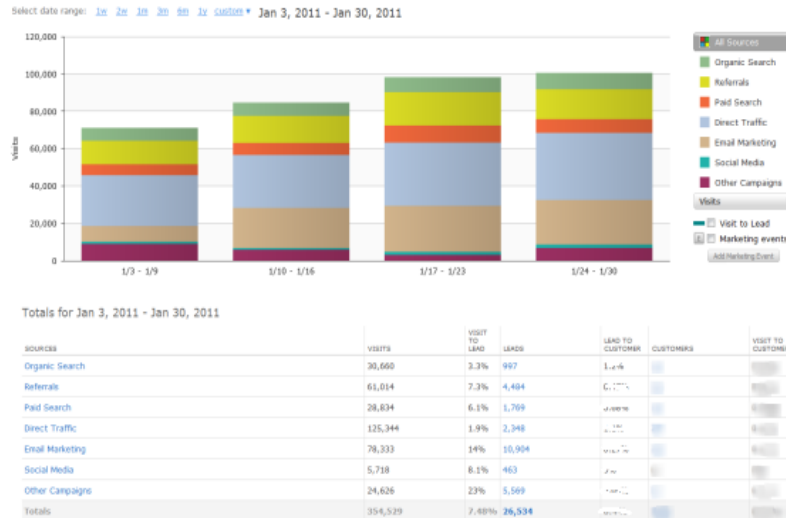
Therefore, in general, though this Article uses a relatively narrow *semantic* definition of what a social networking site is for the purposes of discussion, at least for advertising markets, the true *market* definition for antitrust purposes seems likely to be far broader.

³³ Press Release, comScore, Inc., *supra* note 31.

³⁴ *HubSpot Fact Sheet*, HUBSPOT, <http://www.hubspot.com/Portals/53/docs/HubSpot%20Fact%20Sheet%20-%20Print%20Version%20-%20Updated%206-7-11.pdf> (last visited July 7, 2012). Disclosure: HubSpot is linked to MIT Sloan School of Management.

³⁵ See Waller, *supra* note 20 (manuscript at 5, 7-9).

Figure 1: HubSpot Facilitates the Transfer of Advertising Dollars Based on Return on Investment (ROI)³⁶



II. ANTITRUST ISSUES IN SOCIAL MEDIA ADVERTISING

A. *Standard Models of Network Effects in Advertising Markets*

To understand the potential antitrust issues that may arise in advertising markets on social media platforms, it is important to summarize what standard economic theory says about network effects in such markets.³⁷ Network effects occur, quite simply, when the value of a product increases through a rise in the number of people using it.³⁸ Very loosely, network effects can either be direct—that is, there is a direct performance benefit for users as more users utilize the network, such as is the case with video-messaging services like Skype—or network effects can be indirect, where the presence of one group of users (such as software developers) benefit

³⁶ Christopher Haddad, *How to Finish Your Monthly Marketing Deck in 10 Minutes*, HUBSPOT BLOG (Mar. 2, 2011, 12:00 PM), <http://blog.hubspot.com/blog/tabid/6307/bid/10173/How-to-Finish-Your-Monthly-Marketing-Deck-in-10-Minutes.aspx>.

³⁷ Cf. Steven C. Salop & R. Craig Romaine, *Preserving Monopoly: Economic Analysis, Legal Standards, and Microsoft*, 7 GEO. MASON L. REV. 617, 638-39 (1999) (discussing the economics of network effects in *United States v. Microsoft Corp.*).

³⁸ DANIEL F. SPULBER & CHRISTOPHER S. YOO, NETWORKS IN TELECOMMUNICATIONS: ECONOMICS AND LAW 120 (2009).

another group of users (such as software users).³⁹ Network effects can also be referred to as “network externalities” if there is evidence that the network owner’s pricing strategy does not reflect these network effects.⁴⁰

Network effects are potentially of importance in antitrust because they could possibly impede competition. For example, in *United States v. Microsoft Corp.*⁴¹ it was argued that there were network effects for an operating system, as the value of the operating system grew with both its number of users and the number of firms consequently developing applications for it.⁴² It was then argued that this meant that Microsoft did not face competition in the operating system market, and that it used this incumbency to try and dominate related markets such as browsers.⁴³ In general, the reason that, in network industries, increased antitrust scrutiny may be warranted is “the theory that predation, via predatory pricing, ties, exclusive dealing, or the closure of access to an essential facility, is much easier to achieve in a network.”⁴⁴

In works by Professor Mark Armstrong and by Professors Jean-Charles Rochet and Jean Tirole, advertising markets are modeled as having network effects that are unusual in two respects.⁴⁵ First, advertising markets have negative indirect effects. Typically, two-sided markets (such as game developers and game users, or bank card users and merchants) are modeled as having strong positive indirect network effects, where one group values the presence of the other group.⁴⁶ By contrast, advertising markets are usually modeled as having negative indirect effects—that is, readers of content would weakly prefer in all cases for there to be fewer ads.⁴⁷ Second, content readers treat the presence of ads as a nuisance that they accept in order to access subsidized content.⁴⁸ There are a few cases where in advertising markets, network effects are suspected of being positive. These are general-

³⁹ Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 AM. ECON. REV. 424, 424 (1985).

⁴⁰ STAN J. LIEBOWITZ & STEPHEN E. MARGOLIS, WINNERS, LOSERS & MICROSOFT 68 (1999).

⁴¹ 84 F. Supp. 2d 9 (D.D.C. 1999).

⁴² *Id.* at 20.

⁴³ LIEBOWITZ & MARGOLIS, *supra* note 40, at 252; Timothy F. Bresnahan, *The Economics of the Microsoft Case 2-3* (Stanford Law Sch. John M. Olin Program in Law & Econ., Working Paper No. 232, 2002), available at http://ssrn.com/abstract_id=304701.

⁴⁴ Max Schanzbach, *Network Effects and Antitrust Law: Predation, Affirmative Defenses, and the Case of U.S. v. Microsoft*, 2002 STAN. TECH. L. REV. 4, ¶3 (2002).

⁴⁵ Mark Armstrong, *Competition in Two-Sided Markets*, 37 RAND J. ECON. 668, 681-82, 684 (2006); Jean-Charles Rochet & Jean Tirole, *Two-Sided Markets: A Progress Report*, 37 RAND J. ECON. 645, 659 (2006).

⁴⁶ Rochet & Tirole, *supra* note 45, at 645-46.

⁴⁷ See Simon P. Anderson & Stephen Coate, *Market Provision of Broadcasting: A Welfare Analysis*, 72 REV. ECON. STUD. 947, 950 (2005).

⁴⁸ *Id.*

ly occasions when users are explicitly seeking information, such as in the case of Yellow Pages directories.⁴⁹

The fact that these network effects are presumed to be negative makes the antitrust issue in generic advertising markets less clear. To see this, contrast the case of a classifieds listing site, where there are presumed to be positive network effects, and a photo-sharing website that is supported by advertising, which is presumed to have negative network effects. If the classifieds website managed to attract all the classifieds ads in the world, then it might garner some degree of market power over consumers who are seeking classifieds ads. On the other hand, if the photo-sharing website attracted all the firms who wanted to advertise, then this would certainly not give the website a direct advantage in terms of attracting consumers and might even put it at a disadvantage if consumers left to seek less advertising-cluttered venues.

Unusually, network effects may still be important in the specific market of advertising on social networks because of network effects inherent in the kind of content shown on social network websites.

B. *There Are Definitely Network Effects on the Consumer Side*

What is certain about social networks is that there are direct network effects on the consumer side. When it comes to teaching undergraduates about direct network effects, economics professors have often used the example of a fax machine and pointed out that if someone owns the only fax machine in the world, they are unlikely to find it useful.⁵⁰ Social networks may be an even starker example of direct network effects. If there were only one person on a social network, then that person would be unlikely to find it useful or enjoyable.⁵¹ Therefore, the value of social networks, as suggested by their name, undoubtedly increases through a rise in the number of users.

C. *How Much Do Network Effects Matter?*

The next question is how likely these network effects are to matter in terms of increasing a social network's ability to dominate its competition.

⁴⁹ Marc Rysman, *Competition Between Networks: A Study of the Market for Yellow Pages*, 71 REV. ECON. STUD. 483, 483 (2004).

⁵⁰ E.g., Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 J. ECON. PERSP. 93, 96-97 (1994).

⁵¹ Indeed, in contrast to a fax machine, they couldn't even use a social network profile as an expensive photocopier.

1. Size

There is little work that has attempted to measure the size of network effects on social networking sites on the consumer side, directly. However, the literature has produced some suggestive evidence that such network effects are likely to be large. A study by Professor Michael Trusov et al. suggests that on a social networking site, the elasticity of sign-ups with respect to electronic invitations sent to members by current members is estimated to be 0.53.⁵² In other words, invitations issued by current members are very effective at increasing membership.⁵³ However, again this research only speaks to network effects that have very limited scope.

The other point that is likely to be true about the size of network effects in social networks is that they will vary greatly across members and their connections. A 2008 study shows that the average connection in a social network has very little influence on the adoption behavior of an individual.⁵⁴ In the firm setting of that study, it was only individuals who were higher in the firm's hierarchy (such as managers), and individuals who attained informal influence due to their positions as gatekeepers in the communication structure, who actually affected users' adoption of the technology.⁵⁵ In a similar manner, one might think that, on a social networking site, it would be an individual's close friends and family who ultimately influence the choice of social networking site, and that other acquaintances may be far less important.

2. Scope

An important question, which is not asked often enough when considering whether network effects lead to concerns about competitive intensity in an industry, is what the scope is of network effects. "Scope" is quite simply the question of how many people in the network matter for the happiness of its users.⁵⁶ For example, Facebook has over 900 million users worldwide, but it is not the case that a user values them all.⁵⁷ Instead, it is

⁵² Michael Trusov, Randolph E. Bucklin & Koen Pauwels, *Effects of Word-of-Mouth Versus Traditional Marketing: Findings from an Internet Social Networking Site*, 73 J. MARKETING 90, 98 (2009).

⁵³ *Id.* at 96.

⁵⁴ See Catherine Tucker, *Identifying Formal and Informal Influence in Technology Adoption with Network Externalities*, 54 MGMT. SCI. 2024, 2031 (2008).

⁵⁵ *Id.*

⁵⁶ See MILTON L. MUELLER, JR., UNIVERSAL SERVICE 22-23 (1997) (noting that in telecommunications markets, scope is more important than scale because of users' heterogeneous preferences).

⁵⁷ *Statistics*, FACEBOOK NEWSROOM (Jan. 23, 2012), <http://newsroom.fb.com/Key-Facts/Statistics-8b.aspx>.

likely that the user values the set of people that she already interacts with, and the people with whom there is a positive probability that she may interact. If the scope of network effects is small for any one individual user—even though, following the 2009 study by Professor Trusov et al., they place relatively high valuations on each one of their contacts' presence on the network—then this may consequently reduce the extent to which network effects lead to lock-in for that user and mean that the anticompetitive implications of network effects are less than supposed.⁵⁸

3. Persistence

An important question about network effects that often goes unasked is with respect to their likely persistence. Economic theory posits that in any market where there are network effects and consumers can exit or enter easily, market dominance is incredibly unstable.⁵⁹ In such markets, there is a continuum of multiple equilibria in which each represents a different level of adoption.⁶⁰ Intuitively, imagine a situation where two people can either coordinate to meet at the Empire State building or at Penn Station in New York. It is possible to predict that they could choose to adopt different meeting places at different times, since all that matters for the network effect is whether the other person is present at that particular point in time. Table 2 provides some evidence that there are indeed such instances of multiple “equilibria” in social networking websites across the world.

⁵⁸ See Trusov, Bucklin & Pauwels, *supra* note 52, at 93 (discussing the value to network members of adding more friends to the network). For a general discussion of network effects and lock-in, see Katz & Shapiro, *supra* note 50, at 96-99.

⁵⁹ Cf. *United States v. Microsoft Corp.*, 253 F.3d 34, 55-56 (D.C. Cir. 2001) (en banc) (per curiam) (finding Microsoft to have obtained market dominance in part because consumers found it difficult to switch operating systems).

⁶⁰ See, e.g., Katz & Shapiro, *supra* note 50, at 97.

Table 2: Top Social Network in Individual Asia Pacific Markets by Percent Reach of Web Population in Early 2010⁶¹

Country	Top Social Network in Market	% Reach of Web Population
Indonesia	Facebook	84.9%
Philippines	Facebook	84.5%
Malaysia	Facebook	77.5%
Singapore	Facebook	72.1%
Australia	Facebook	69.4%
New Zealand	Facebook	63.6%
Hong Kong	Facebook	62.6%
Taiwan	Wretch	62.5%
South Korea	CyWorld	54.2%
India	Orkut	46.8%
Japan	Mixi	18.9%
Vietnam	Facebook	18.4%

This example makes clear that network effects are generally not enough to lead to persistent anticompetitive effects. Instead, network effects need to be linked with “switching costs,” which prevent the easy entry and exit of consumers once they have adopted a network standard.⁶² In the operating system example from *Microsoft*, there were switching costs for users of Windows because it was costly and difficult for people to move their files and data out of the Windows format to an alternative format.⁶³ Therefore, to really understand the likely importance of network effects in this market for antitrust purposes, it is necessary to try and understand how likely and easy users are to find it to switch social networks or try to use a new social network.⁶⁴

There are obvious potential sources of switching costs on social networks. For example, if someone switches to a new social network, then she has to recreate her profile and transfer any photos and personalization. She also has to learn an entirely new interface. However, there is little evidence that these drawbacks have been severe enough to stop users from switching social networks, at least in the past. One only has to remember the rapid rise

⁶¹ Press Release, comScore, Inc., Social Networking Habits Vary Considerably Across Asia-Pacific Markets (Apr. 7, 2010), available at http://www.comscore.com/Press_Events/Press_Releases/2010/4/Social_Networking_Across_Asia-Pacific_Markets.

⁶² See Joseph Farrell & Carl Shapiro, *Dynamic Competition with Switching Costs*, 19 RAND J. ECON. 123, 123 (1988).

⁶³ *United States v. Microsoft Corp.*, 84 F. Supp. 2d 9, 15 (D.D.C. 1999).

⁶⁴ See U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, HORIZONTAL MERGER GUIDELINES § 7.2 (2010).

and fall of Friendster and Myspace in this area to see evidence of the great fragility of network effects in earlier social networking websites. Friendster was founded in 2002 and until 2004 it was the largest social networking website in the United States.⁶⁵ Myspace largely replaced Friendster because Myspace offered better personalization options and the potential to hear new music.⁶⁶ Myspace itself was the most visited social networking website between 2005 and April 2008.⁶⁷ However, its lack of privacy controls, emphasis on music, and lack of new features are conjectured to have led it to be surpassed by Facebook.⁶⁸ As the industry evolves, it will be interesting to observe whether Facebook, which is currently the most visited social networking site,⁶⁹ will continue to dominate or whether it will suffer a similar decline.

For one to postulate that this time is different and that Facebook has a kind of market power that Myspace did not have, one has to suppose that there is some mechanism keeping users on Facebook and increasing switching costs that did not exist for Myspace. In reality, however, users can delete their Facebook profiles relatively easily, so long as they are willing to spend two weeks ensuring that they do not accidentally log into their accounts, thus reactivating them.⁷⁰ Another parallel example of the lack of switching costs, and the ability of users to maintain profiles potentially at multiple social networking websites, is the experience of Orkut. Orkut is a social networking site that is owned and operated by Google.⁷¹ It achieved high penetration in Estonia, Brazil and India.⁷² Generally, in Brazil it is reputed to be in decline relative to Facebook,⁷³ but as the statistics in Table 3 indicate, even in a period of decline, Orkut's membership increased.

⁶⁵ See Leah Lerner, *How Friendster Works*, HOWSTUFFWORKS, <http://computer.howstuffworks.com/internet/social-networking/networks/friendster.htm> (last visited July 7, 2012).

⁶⁶ Danah M. Boyd & Nicole B. Ellison, *Social Network Sites: Definition, History, and Scholarship*, 13 J. COMPUTER-MEDIATED COMM. 210, 216-17 (2008).

⁶⁷ See John Owens, *MySpace in Agency Talks Ahead of Brand Relaunch*, PRWEEK (May 17, 2012, 8:00 AM), <http://www.prweek.com/uk/news/1132132/myspace-agency-talks-ahead-brand-relaunch>.

⁶⁸ See Felix Gillette, *The Rise and Inglorious Fall of Myspace*, BLOOMBERG BUSINESSWEEK, June 27, 2011, at 52, 58.

⁶⁹ See *It's a Social World*, *supra* note 1, at 8.

⁷⁰ Justin Phelps, *How to Delete Your Facebook Account*, PCWORLD (Nov. 3, 2011, 3:00 PM), http://www.pcwORLD.com/article/242956/how_to_delete_your_facebook_account.html.

⁷¹ Ricardo Geromel, *Facebook Surpasses Orkut, Owned by Google, in Numbers of Users in Brazil*, FORBES.COM (Sept. 14, 2011, 6:33 AM), <http://www.forbes.com/sites/ricardogeromel/2011/09/14/facebook-surpasses-orkut-owned-by-google-in-numbers-of-users-in-brazil>.

⁷² Kaifu Zhang & Miklos Sarvary, *A Competitive Analysis of Web 2.0 Communities: Differentiation with User-Generated Content* 19 (June 5, 2011) (unpublished manuscript), available at <http://ssrn.com/abstract=1858252>.

⁷³ See Geromel, *supra* note 71.

Table 3: Selected Social Networking Sites in Brazil by Total Unique Visitors (000), December 2011 vs. December 2010⁷⁴

	Dec. 2010	Dec. 2011	% Change
Total Internet: Total Audience	45,128	51,759	15%
Social Networking	42,477	47,399	12%
Facebook	12,379	36,098	192%
Orkut	32,671	34,419	5%
Windows Live Profile	11,801	13,301	13%
Twitter	8,939	12,499	40%
Vostu	1,120	4,901	338%
Google Plus	N/A	4,300	N/A
Tumblr	1,319	4,029	206%
LinkedIn	N/A	3,182	N/A

D. *Consumer-Side Network Effects May Lead to Network Effects in Advertising*

The immediate question for competition authorities is whether there are markets that are “tied” to the consumer social network market, meaning that social networking websites can benefit from the market’s inherent network effects.⁷⁵ The most obvious such market is online advertising.⁷⁶

What is unique about social networks is that the existence of a customer network can itself actually be used to improve advertising. One of the authors has previously investigated a new form of advertising called “social advertising.”⁷⁷ In social advertising, marketers use online social relationships to target and improve their ads.⁷⁸

Previous work by one of the authors has examined data from a field experiment in which a nonprofit used both traditional and social advertising on Facebook.⁷⁹ Data analysis suggests that the social ads, which were targeted to friends of “fans” of the nonprofit on Facebook, attracted far more

⁷⁴ Press Release, comScore, Inc., Facebook Blasts into Top Position in Brazilian Social Networking Market Following Year of Tremendous Growth (Jan. 17, 2012), available at http://www.comscore.com/Press_Events/Press_Releases/2012/1/Facebook_Blasts_into_Top_Position_in_Brazilian_Social_Networking_Market.

⁷⁵ See David S. Evans, *Antitrust Issues Raised by the Emerging Global Internet Economy*, 102 NW. U. L. REV. COLLOQUY 285, 294 (2008), available at <http://www.law.northwestern.edu/lawreview/colloquy/2008/13/LRColl2008n13Evans.pdf>.

⁷⁶ This Article does not consider other markets such as social gaming and “applications.”

⁷⁷ Tucker, *supra* note 5, at 1-2.

⁷⁸ *Id.* at 2.

⁷⁹ *Id.* at 6-7.

clicks than those that were not.⁸⁰ When advertisers target ads based on who is friends with whom, they can double the number of clicks, because advertisers can uncover consumers who may also be interested in their product.⁸¹ In sociology, the phenomenon that friends may have similar (unobserved) tastes is called “homophily” and is sometimes summarized by the expression “birds of a feather flock together.”⁸² The use of social network data to improve advertising relevance and consequently revenue means that network effects may be more important than in other advertising networks.

The obvious question is whether this form of social advertising, because it uses social network data, is also subject to network effects. This answer is less clear-cut. Certainly, the value to the advertiser for an ad may increase with the number of a user’s social connections. This would particularly be the case if the advertiser’s aim were predominantly to obtain a large reach—that is, a large number of eyeballs for the ad. However, it seems most likely that the value of such ads to advertisers would increase mainly in the quality of the network data that the social network offered.⁸³ In other words, social networks with data that most accurately reflected meaningful social relationships would be most valuable.

III. ANTITRUST AND PRIVACY IN SOCIAL NETWORKS

It is obligatory when discussing social networks to mention privacy. This is because social networks have enabled the sharing of digital data at unprecedented levels, raising natural questions of consumer privacy.⁸⁴

Privacy has just recently entered antitrust discussions.⁸⁵ The current legal debate has focused on whether concerns about privacy should be used as a criterion to reject proposed mergers.⁸⁶ In other words, the question is whether a reduction in consumer surplus due to privacy erosion should be treated in a similar manner to a reduction in consumer surplus due to higher

⁸⁰ *Id.* at 3.

⁸¹ *See id.* at 12, 14.

⁸² Miller McPherson, Lynn Smith-Lovin & James M. Cook, *Birds of a Feather: Homophily in Social Networks*, 27 ANN. REV. SOC. 415, 416-17 (2001).

⁸³ *See* Mauro Bampo et al., *The Effects of the Social Structure of Digital Networks on Viral Marketing Performance*, 19 INFO. SYS. RES. 273, 287 (2008).

⁸⁴ Eli Edwards, *Stepping Up to the Plate: The Google-DoubleClick Merger and the Role of the Federal Trade Commission in Protecting Online Data Privacy* 30-31 (Apr. 25, 2008) (unpublished manuscript), available at <http://ssrn.com/abstract=1370734>.

⁸⁵ *See* Senator Al Franken, Remarks to the American Bar Association (Antitrust Section) 18-27 (Mar. 29, 2012), available at http://assets.sbnation.com/assets/1033745/franken_aba_antitrust_speech.pdf.

⁸⁶ *See* Edwards, *supra* note 84, at 2.

prices.⁸⁷ However, more recent work has questioned whether this is the right antitrust question relating to privacy. Specifically, Professor James Campbell et al. ask whether the introduction of privacy regulation may ultimately lead to less competition.⁸⁸ Campbell et al. use an economic theory model to illustrate this point, but the intuition is relatively straightforward, as shown by the following thought experiment.⁸⁹

Imagine it is the late 1990s and you had the choice of the two search engines shown in Figure 2. AltaVista is the incumbent that you are comfortable and familiar with. Google is a recent upstart that has a better product but that you know little about.⁹⁰ Imagine now that privacy regulation forced users to choose whether to give explicit opt-in consent to these two search engines upon first use. It is likely that while users might be more comfortable with giving this consent to the well-known AltaVista, they would feel less comfortable with giving consent to the upstart Google. In this manner, privacy regulation can inadvertently favor incumbents and hamper the operations of start-ups.

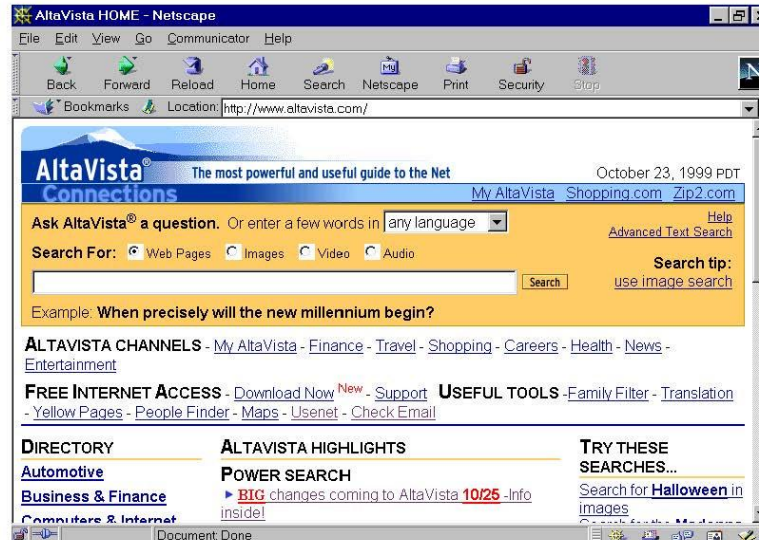
⁸⁷ *Cf. id.* at 3-4 (noting that the Federal Trade Commission considers privacy violations without a corresponding benefit to “be unfair practices” in the merger context).

⁸⁸ James Campbell, Avi Goldfarb & Catherine Tucker, Privacy Regulation and Market Structure 2 (Dec. 9, 2011) (unpublished manuscript), available at <http://ssrn.com/abstract=1729405>.

⁸⁹ *See id.* at 2-5.

⁹⁰ AltaVista was the incumbent search engine in the mid-1990s, and “the Google of its era.” JOHN BATTELLE, THE SEARCH: HOW GOOGLE AND ITS RIVALS REWROTE THE RULES OF BUSINESS AND TRANSFORMED OUR CULTURE 45 (2005).

Figure 2: Which Would You Choose?



Google!
B E T A



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CONCLUSION

People spend 20 percent of their time online on social networking sites.⁹¹ That represents an extraordinary amount of time given that this category of website hardly existed seven years ago. However, as of 2012, there is little indication this has led to explicit antitrust issues. This is partially because of the difficulty to prove anticompetitive harm when users almost always experience social networking sites for free. Furthermore, the extent to which there are antitrust issues in the advertising market, which is the main place that Facebook has attempted to monetize its user base, appears for now to be limited, simply because of vigorous competition from other advertising channels and the inherent fragility of these social networks.

⁹¹ *It's a Social World*, *supra* note 1, at 4.