Dylan Butler (dgbutler@law.cwsl.edu)

December 2010

Professor Johnson

Telecommunications Law

California Western School of Law

Google's Monopoly: The Sherman Act's Inability to Protect Competition and Promote Advertiser and Publisher Rights in Internet Advertising

Table of Contents

I. Introduction

Google dominates the U.S. internet advertising market, a twenty-plus billion-dollar industry.[1] Google's success in internet advertising is largely in part thanks to its dominance in the internet search market.

Due to its unique position and ability to capitalize, Google has quickly become one of the most powerful companies in the world. Google routinely pushes the envelope on social and political issues, like space travel[2] and world hunger.[3] In an October earnings call, Google announced a record 2010 third-quarter revenue of $7.29 billion (up 23% from 2009).[4]

With great power, comes great responsibility. Critics of Google's policies worry that the search giant operates in a cloud of secrecy, denying certain rights to advertisers and publishers while destroying competition. Recognizing that Google's dominance arises from its search engine monopoly, the first place critics seek redress is under U.S. antitrust law.

Section 2 of the Sherman Act prohibits both monopolization and attempts to monopolize by American companies[5]. However, the statute may be ineffective to address

---

[1] Nerney, Chris, *Internet Advertising Revenue Hits New Record in Q3,* IT WORLD, November 17, 2010, http://www.itworld.com/internet/128038/internet-advertising-revenue-hits-new-record-q3 (last accessed 12 December 2010) ("[T]hat's $25.3 billion for 2010, which would be an annual record and an increase of nearly 12 percent over 200").

[2] *Google LUNAR X Prize*, http://www.googlelunarxprize.org, (last accessed November 10, 2010) ("The Google Lunar X PRIZE is a $30 million competition for the first privately funded team to send a robot to the moon, travel 500 meters and transmit video, images and data back to the Earth.").

[3] Gross, Doug, *Google vs. China: Free speech, finances, or both?* January 13, 2010, CNN, http://articles.cnn.com/2010-01-13/tech/google.china.analysis_1_google-network-thousands-of-search-terms-search-engine?_s=PM:TECH (last accessed November 10, 2010) ("Google's decision to filter itself in China in the first place was likely the most controversial in the history of the search-engine leader.").

[4] Labovitz, Craig, *Google Sets New Internet Traffic Record,* October 25, 2010, http://asert.arbornetworks.com/2010/10/google-breaks-traffic-record/ (last accessed December 9, 2010).

[5] 15 U.S.C § 2, which reads "Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding $100,000,000 if a corporation, or, if any other person, $1,000,000, or by imprisonment not exceeding 10 years, or by both said punishments, in the discretion of the court."

internet giant Google's ability to leverage their monopoly power in the search market to bolster their own properties and deny certain rights to publishers and advertisers.

Google's lawyers would not be doing a very good job if the company's actions could easily fit the elements of a federal antitrust statute. Even if Google gave preference to their own properties and denied certain fundamental rights to their customers, it would not be clear that the company was in violation of antitrust law.

Furthermore, even if a court did find Google guilty of monopolization, the remedies available would be very limited. Due to the perplexities and novelty in the internet advertising industry, many of the common antitrust remedies may be ineffective to protect competition. They may even do more harm than good.

This article focuses on Section 2 of the Sherman Act, and does not discuss the Clayton Act or unfair trade/price discrimination statutes.

Part II explains the applicable rules, specifically Section 2 of the Sherman Act, which prohibits monopolization and attempts to monopolize[6].

Part III outlines the inadequacy of the Sherman Act to protect competition in emerging industries, where an actor's success is largely dependent upon the existence of, and access to, a secondary monopoly. Stated simply, the problem is that the antitrust statutes were designed to protect competition, but no company is in a position to compete with Google. Additionally, there are fundamental and procedural barriers preventing plaintiffs from bringing an antitrust suit against Google.

Part IV will weigh the benefits and drawbacks of possible remedies, and discuss what action, if any, should be taken against Google.

II. Applicable Rules

Where there is a lack of competition, monopolists exploit the free market to the detriment of consumers who have no choice but to pay for the overpriced goods or services.

This detriment to consumers was regarded as a special form of public injury[7], thus permitting Congress to prohibit some "restraints of trade" under the U.S. Constitution's Commerce clause.

---

[6] *Id.*

[7] *Id. at* § 15.

The Sherman Act

U.S. Antitrust law, rooted in equity, is well equipped to handle complex cases where monopolists are accused of abusing market power. The Sherman Act was enacted to prevent the artificial raising of prices by restriction of trade or supply.[8] One policy of the statute is that good competition prevents monopolies and their ability to restrict output or raise prices. Many antitrust experts and scholars emphasize the need for sophisticated and balanced antitrust analysis in communications industries.

The social consequences of running a monopoly are the same whether it was acquired lawfully or through various forms of illegal activities.[9] In recognition of this, Congress drafted Section 2 of the Sherman Act, which forbids the "possession and willful acquisition of monopoly power."[10]

However, simply possessing monopoly power and charging monopoly prices is not enough to violate the Sherman Act.[11] The offense of monopolization requires the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historical accident.[12]

There is also an element of intent in a Sherman Act violation. The intent for actual monopolization is easier to prove than attempted monopolization, because actual monopolization requires a showing of actual monopoly power. The former requires a showing of general intent to exclude competitors[13], where the latter requires a showing of specific intent to destroy competition or build a monopoly[14].

---

[8] *See* Letwin, William L., *Congress and the Sherman Antitrust Law: 1887-1890*, 23 U.Chi.L.Rev 221 (1956).

[9] 76 Antitrust L.J. 205.

[10] 15 U.S.C. § 2.

[11] Pacific Bell Telephone Co. v. Linkline Communications, Inc., 129 S. Ct. 1109 (2009).

[12] Id. at 1110. Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 124 S. Ct. 872, 157 L. Ed. 2d 823 (2004).

[13] U.S. v. Griffith, 334 U.S. 100, 68 S. Ct. 941, 92 L. Ed. 1236 (1948) (disapproved of on other grounds by, Copperweld Corp. v. Independence Tube Corp., 467 U.S. 752, 104 S. Ct. 2731, 81 L. Ed. 2d 628 (1984)); American Tobacco Co. v. U.S., 328 US. 781, 66 S. Ct. 1125, 90 L. Ed. 1575 (1946).

[14] Spirit Airlines, Inc. v. Northwest Airlines, Inc., 431 F.3d 917 (6th Cir. 2005).

The final requirement of a Section 2 violation is showing a dangerous probability of achieving monopoly power. This element cannot be inferred; it can only be shown by a rule of reason analysis.

The Rule of Reason

The rule of reason weighs the social utility of competition in the marketplace with the chilling effect that regulation has in a free market. The critical question to ask is whether the restraint imposed merely regulates and perhaps promotes competition, or whether it suppresses or even destroys competition. A restraint that directly suppresses competition is violative under the rule of reason.

The analysis begins by looking at the restraint and its purpose. If the purpose is in any way effectuated to destroy or suppress competition, then the restraint is violative of the Act. The next step is to look at the effects of the restraint, and if they tend to do the same, then it may be found to violate the Act. Finally, a rule of reason analysis concludes with the question of whether it is reasonable given the conditions under which it is imposed.

The Courts have carved out several factors to be considered during a rule of reason analysis. These factors include the facts peculiar to the business, the industry's condition before and after the restraint, the nature of the restraint, its effect (actual or probable), the history of the restraint, the evil believed to exist, the reason for adopting the remedy, and the purpose or end sought to be attained are all relevant in considering whether a restraint is dangerously likely to result in a monopoly.

These factors alone are not determinative of a violation. However, they do allow the court some flexibility and guidance in considering whether a particular restraint unlawfully restrains competition. A Section 2 violation comprises a particular anticompetitive restraint on trade, not just the power to overcharge customers.

III. Discussion

Google has become a nexus of information and research across the country. It is commonly viewed as the gateway to information access over the internet. Google has a monopoly over internet search, and has used that power to deny rights to advertisers and publishers and promote their own products and services over competitors.

A Section 2 violation requires a showing of dominance in the relevant market and

willful acquisition or maintenance of monopoly power. The first step in showing a violation is defining the relevant market.

Market Definition

Market definition will be crucial in an antitrust case against Google. The relevant product market in a Section 2 claim includes services or commodities that are reasonably interchangeable by consumers for the same purposes, within an appropriate area of competition.[15] This product interchangeability question focuses on the user's point of view as to what is available in the market with comparable characteristics such as price, potential uses, and benefits. Functionally interchangeable products will be included in the same product market unless factors indicate that they are not actually part of the same market.[16]

The question of relevant market depends on the restraint at issue. If the focus were on Google's competitive ranking algorithms, then the relevant market would be the internet search market, dominance of which Google can hardly deny. Shifting the focus to Google's policies pertaining to advertisers and publishers changes the relevant market to that of internet advertising.

A legal monopolist is entitled to exploit a monopoly in order to maximize its profits.[17] Simply charging high prices is not a violation. The probability of successfully monopolizing a market is usually assessed through market share, and the greater share a defendant initially controls, the greater the probability of achieving monopoly status.[18] An antitrust complaint, therefore, must contain allegations specifying the market in which

[15] Am. Jur. 2d, Monopolies, Restraints of Trade and Unfair Trade Practices § 58.

[16] F.T.C. v. Arch Coal, Inc., 329 F. Supp. 2d 109 (D.D.C. 2004), case dismissed, 2004 WL 2066879 (D.C. Cir. 2004).

[17] Arroyo-Melecio v. Puerto Rican American Ins. Co., 398 F.3d 56 (1st Cir. 2005).

[18] CCBN.Com, Inc. v. Thomson Financial, Inc., 270 F. Supp. 2d 146 (D. Mass. 2003); Valet Apartment Services, Inc. v. Atlanta Journal and Constitution, 865 F. Supp. 828 (N.D. Ga. 1994).

the defendant has attempted to create a monopoly[19] and the alleged offender's economic power in that market.[20]

Google may claim to be a small fish in the much larger advertising market. However, a market interchangeability analysis might suggest internet advertisers will largely not participate in other advertising methods in the absence of Google. There are simply things Google can provide to advertisers that no other program can offer.

If Google were to suddenly terminate the Adwords and Adsense Programs, the internet advertising industry as a whole would be drastically impacted. Advertisers would have trouble finding suitable replacements for the Adsense program because Google controls the search market. That is not to say that an advertiser could not achieve his goals elsewhere, but in terms of sheer traffic abundance, Google sits on the mother lode.

Google has centralized all of their advertising networks. They offer a truly novel service, currently unmatched by anyone. Without Google Adwords, advertisers attempting to reach people in the search, mobile, media, and content networks would be forced to contract with multiple vendors.

This merging of services plays an important role in gauging cross-elasticity of demand. If advertisers cannot readily seek alternatives to the Google service, then Google is free to charge whatever it wants to the detriment of consumers.

Defining the relevant market narrowly permits an easy assessment of various statistics and figures. A narrow definition could include those online advertisers that offer pay-per-click (PPC) advertising across multiple internet mediums. There are very few companies that fit within this definition.

Too narrow a market definition overlooks the millions of independent internet advertising deals that take place each year and the numerous advertising models that exist, of which pay-per-click is only one.

Private agreements between publisher and advertiser typically eliminate the middleman, allowing them to create custom-tailored deals with mutual gain. Such

---

[19] Hughes Automotive, Inc. v. Mid-Atlantic Toyota Distributors, Inc., 543 F. Supp. 1056 (D. Md. 1982).

[20] American Jurisprudence §§ 65 to 68.

agreements may function more like property rentals, where portions of one's web page real estate are rented out for a period of time. In a cost-per-impression (CPM) model, an advertiser pays for every 1000 ad impressions[21]. The CPC and CPM models are the most popular[22], both of which Google offers.

There are several internet advertisement models that Google does not offer. In the cost-per-action (CPA) model, an advertiser only pays for a predetermined action or trigger. For instance, if a user reaches the checkout page, that user is labeled as a conversion, and a fee is paid to the advertiser who referred him to the site. There are many more internet advertising models, but this article focuses primarily on the Sherman Act's inability to foster competition and protect rights in the PPC and CPM markets, which are ruled by Google.

Competitors

In light these alternative models, it is not surprising to learn that there are competitors to Google's Adsense and Adwords programs. While every search engine offers some form of search advertising alongside their results, not every search engine advertising service compares to Google's. Furthermore, there are other advertising networks available that are not run by search engines, for example, Facebook Ads.

Facebook's advertising platform reaches the site's 500 million users, a number which stacks up against Google's two-thirds of all U.S. search traffic. While Facebook does not offer a distribution network like that of Google Adsense, it has an advanced targeting system comparable to Adwords. Facebook may offer the best comparison in terms of sheer traffic potential and reach, but there are services that are even more similar to those provided by Google which warrant further consideration.

BidVertiser is a popular PPC ad distribution network, servicing both advertisers and publishers.[23] Naturally, it has a smaller market share than Google, thus a smaller

---

[21] CPM – definition, information, sites, articles, MarketingTerms, http://www.marketingterms.com/dictionary/cpm/ (last accessed December 2, 2010).

[22] Nguyen, Son T., *Popular Pricing Models for Online Advertisers*, http://ezinearticles.com/?Popular-Pricing-Models-For-Online-Advertising&id=4862074 (last accessed December 2, 2010).

[23] *BidVertiser – Pay Per Click Advertising On Sites Of Your Choice,* http://www.bidvertiser.com/ (last accessed December 9, 2010).

pool of ads to choose from, lower payout rates, and less advertisers competing for keywords. On the flip side, advertisers benefit because they may pay substantially less per click (or impression), in exchange for decreased market exposure. Publishers get the benefits of a bidding-based system, and having a company to compete with Google Adsense.[24]

The search advertising program through Microsoft's Bing and Yahoo!, which captures 33% of the U.S. online market, is another potential Google competitor. The program boasts a market "known for buying, not browsing," and advanced ad targeting. However, the service suffers from a high standard of entry and a complicated sign-up process. The downfalls of entry to this program greatly decrease its cross-elasticity of demand. While the service is technically open to the public, screening procedures render this service unavailable to a large pool of publishers who run small web sites and advertisers with small budgets.

These competitors may not be true alternatives, but they may play an important role in a relevant market determination when considering those products or services, which are comparable in terms of price, potential uses, and benefits.

Antitrust Standing

Section 15 of the Clayton Act provides in part that any person injured in his business or property by reason of anything forbidden in the antitrust laws may sue.[25] This essentially authorizes federal antitrust actions by private plaintiffs. Although much has been postulated as to Google's antitrust liability, few (if any) suits have actually been brought.[26] The Federal Trade Commission and European Union have both investigated the search giant in the past, but the FTC dropped its investigation in 2007. The EU investigations continue, with a new investigation announced in late November 2010.[27]

---

[24] *BidVertiser – Frequently Asked Questions (Publishers),* http://www.bidvertiser.com/bdv/BidVertiser/bdv_publisher_faq.dbm#3 (last accessed December 7, 2010) (under "What makes BidVertiser different from other ad networks?").

[25] 15 U.S.C. § 15.

[26] This author was unable to locate any complaints alleging a Sherman Act violation by Google.

[27] Waddington, Charlie, *EU Investigating Google Inc for Selective Search and Ads,* December 8, 2010, News Simplified, http://newssimplified.com/eu-investigating-google-inc-for-selective-search-and-ads/2720/ (last accessed December 10, 2010).

As a threshold matter, to assert a claim under the federal antitrust laws, the plaintiff must have suffered "antitrust injury." This means "injury of the type the antitrust laws were intended to prevent and that flows from that which makes the defendant's acts unlawful." Implicit in this definition are two separate conceptual issues. First, the claimed injury must be of a type that the antitrust laws were meant to discourage (e.g., a business' lost profits from a reduced ability to compete or a consumer's injury from having to pay an artificially inflated price). Second, the plaintiff's injury must have been proximately caused by the defendant's antitrust violation, and not by some other act or event.[28]

A publisher whose account was terminated has an easy claim to injury; he can simply point to the account earnings that have been frozen. Competitors who find their search results ranking lowered unfairly may have more trouble claiming an injury because it may not be the direct result of anticompetitive conduct, i.e. speculative in nature. Harder still is an advertiser's claim to injury, because it is speculative in nature and further disconnected from any specific conduct by Google.

The absence of noisy plaintiffs has not stopped analysts from speculating as to what a possible antitrust case against Google might look like.[29] Nor has it stopped individual plaintiffs from bringing suit for individual claims,[30] the accumulation of which could amount to class action levels or worse, be factored into a rule of reason analysis.

Algorithm Impartiality

Google claims total impartiality in their search engine algorithms.[31] Arguing their algorithms are neutral, while simple and persuasive, obscures the reality that a company

---

[28] Holmes, William C., Esq., *Antitrust Law Handbook,* § 9:8 (2010).

[29] Sullivan, Danny, *Deconstructing Google: After the Antitrust Breakup,* SEARCH ENGINE LAND, December 30, 2007, http://searchengineland.com/deconstructing-google-chapter-4-after-the-google-antitrust-breakup-13026, (last accessed December 7, 2010).

[30] Greenspan, Aaron, *Why I sued Google (and Won)*, THE HUFFINGTON POST, March 6, 2009, http://www.huffingtonpost.com/aaron-greenspan/why-i-sued-google-and-won_b_172403.html, (last accessed December 6, 2010).

[31] Holtz, Julia, *Committed to Competing Fairly,* GOOGLE PUBLIC POLICY BLOG, February 23, 2010, http://googlepublicpolicy.blogspot.com/2010/02/committed-to-competing-fairly.html (last accessed December 6, 2010).

with monopoly power might try to suppress or destroy competition.

Perplexingly, on numerous occasions, Google has touted their unbiased ranking mechanisms; high-level officials have also confessed to putting the Google link first on some new Google services.[32] It is not clear just how much preference Google gives its own properties, but it is clear that those types of decisions do affect competitors and consumers alike.

What some will call unlawful bolstering of subsidies to the detriment of competition,[33] others will call investment. Alex Epstein of the Ayn Rand Center for Individual Rights correctly asserts that Google earned its market power, and that power exists only so long as consumers continue to choose Google. [34] The fact still looms that while Google has market power, it has the potential to abuse it.

There has been some evidence of hard coding bias in Google search results. Professor Benjamin Edelman of Harvard Business School has collected categories of searches that, when taken together, suggest Google has tampered with search results to promote their own products and services over competitors.[35] He also created a "comma tester" tool, a methodology for detecting tampering in comparable searches, which offers interesting and unexpected results.[36] After analyzing the effect that tampering with search results has on competition Mr. Edelman concludes his assessment by "proposing principles to block Google bias."[37]

Edelman attacks Google's impartiality defense and its premise. Google can boost

---

[32] Video: Seattle Conference on Scalability, October 8, 2007. http://www.youtube.com/watch?v=LT1UFZSbcxE#t=44m50s (YouTube video).

[33] Clemons, Eric, *What An Antitrust Case Against Google Might Look Like,* TechCrunch, March 1, 2009, http://www.techcrunch.com/2009/03/01/what-an-antitrust-case-against-google-might-look-like/ (last accessed December 10, 2010) ("Google is likewise abusing its monopoly position, deterring market entry in areas that would benefit consumers and damaging potential entrants.").

[34] Epstein, Alex, *An antitrust case against Google: a threat to free competition,* Ayn Rand Center for Individual Rights, March 20, 2009, http://blog.aynrandcenter.org/an-antitrust-case-against-google-a-threat-to-free-competition/ (last accessed December 2, 2010) ("Through incredible technical innovation and brilliant management and marketing, Google has created by far the most popular search engine on the planet, earning hundreds of millions of users.").

[35] Edelman, Benjamin, *Hard-Coding Bias in Google "Algorithmic" Search Results*, November 15, 2010, http://www.benedelman.org/hardcoding/ (last accessed December 2, 2010).

[36] *Id.*

[37] *Id.*

traffic for a multitude of ventures by directing users to Google services. At the same time, entrepreneurs are deterred from investing in services which compete or could compete with Google for fear that their efforts may be futile.

While this concern is valid, one cannot help but argue that entrepreneurs are encouraged to compete with Google, in hopes of one day being gobbled up by the giant. An unlawful abuse of power under Section 2 can also be proven under the essential facilities doctrine, discussed below.

Essential Facilities

The essential facilities doctrine imposes antitrust liability on firms who have market power and use their market power to create a "bottleneck" and deny entry to competitors. Plaintiffs rely on the doctrine as another means of proving a Section 2 violation. The elements of an essential facilities claim are (1) control of the essential facility by a monopolist, (2) a competitor's inability to practically or reasonably duplicate the essential facility, (3) the denial of the use of the facility to a *competitor*, and (4) the feasibility of providing the facility to competitors.[38]

The outcome of an essential facilities claim relies heavily on the definition of the facility in question. An essential facility can even be a refusal to deal, in the form of a settlement agreement or otherwise. Some academics advocate the revitalization of the doctrine with respect to telecommunications and information systems.[39] The Google Books settlement with The Author's Guild, which may have granted Google a potential monopoly over out-of-print documents and books, has been the subject of much scrutiny.

Berkeley's Peter Brantley takes the analysis a bit further in considering the Google Books settlement's effect on entry barriers for other actors who wish to provide services based on out-of-print books. Brantley looks beyond the anticompetitive effects of obtaining a monopoly in markets which the Department of Justice has considered

---

[38] Sullivan, E. Thomas, and Hovenkamp, Herbert, *Antitrust Law, Policy, and Procedure: Cases, Materials, and Problems, Fifth Edition*, LexisNexis Publishers, 701-706 (2004) (emphasis added).

[39] Waller, Spencer Weber, Frischmann, Brett M., *Revitalizing Essential Facilities,* ANTITRUST LAW JOURNAL, Vol. 75 No. 1 2008, February 7, 2007.

worth monitoring. He looks further at the priceless value of the intelligence obtained from running a monopoly which spans such markets.[40]

To question whether Google Adwords or Adsense are essential facilities further complicates the issue. A logical businessman would not promote his competitor's products and services over his own. A court would have to consider both supply and demand sides of the argument to determine if a property is an essential facility. For instance, if the Adwords auction system or the Adsense ad display mechanisms cannot be easily duplicated by existing or potential competitors they could be essential facilities.

The bidding system and payout systems may call for nondiscriminatory access because they create and sustain a wide variety of activities that generate market and nonmarket goods.[41] As of this writing, courts have yet to impose liability on firms who have created an essential facility and then chosen to deny that facility to a customer, like advertisers or publishers.

Advertiser Rights

Advertisers and publishers need to know certain information in order to effectively monitor ad performance, dispute fraudulent claims, and improve their efforts. For instance, advertisers need to know where their ads are being shown. In traditional advertising models (newspapers, magazines and television), when a user buys an ad, they know exactly where it will go and how many people are projected to see it. Google impairs this by thwarting an advertiser's ability to determine where the ad was when a user clicked on it. Technical shortfalls aside, powerful online advertising networks, like Google, exert enormous power over customers, who have little say in the matter.

Harvard's Professor Edelman has floated a "Bill of Rights for Online Advertisers," which protects advertisers from powerful ad networks[42]. He offers five advertiser rights which should help "avoid fraudulent charges for services not rendered,

---

[40] Brantley, Peter, *Class Action Monopoly*, November 6, 2008, http://blogs.lib.berkeley.edu/shimenawa.php/2008/11/06/class-action-monopoly (last accessed December 5, 2010).

[41] *See* Waller and Frischmann, *supra.*

[42] Edelman, Benjamin, *Towards a Bill of Rights for Online Advertisers*, September 21, 2009, http://www.benedelman.org/advertisersrights/ (last accessed December 2, 2010).

guarantee data portability so advertisers get the best possible value, and assure price transparency so advertisers know what they're buying."[43]

Advertisers need more information to effectively manage their campaigns. In addition to knowing where ads are being shown, an advertiser might want to know how much money is being paid out to publishers, and which publishers. A click from a low-quality site may not be cost-effective to an advertiser. That advertiser should have the right to restrict future clicks from such low quality sites. If advertisers were more assertive of their rights, perhaps some of the complaints from advertisers would be quieted. A more assertive internet advertising community could obtain Google's cooperation without the necessity for antitrust intervention. However, advertisers are not the only ones who are left out of the loop.

Publishers in the Google Adwords program also need certain information. They need to know how much they are earning per click and why. A good publisher wants to know his site is not being lumped in with other bad publishers, causing his payouts to drop lower than their potential. It is troublesome, if not impossible, to dispute payouts with Google because publishers are basically in the dark with regards to how much they could (or should) be making.

Publisher Rights

Publishers should know how much revenue Google is keeping from them. Google only recently released such information, in the wake of ongoing antitrust scrutiny from the Italian government. In a May 2010 blog post, Google announced for the first time, specific percentages that it pays out to publishers. Those percentages, however, do nothing to alleviate the savvy publisher who wants to maximize his web site's earnings.

Other than the May 2010 blog post, there appears to be only one other mention of specific factors used in calculating payouts, and it is found on the Adsense website under "Adsense Basics":

[43] *Id.*

> Not all ads are priced the same, so factors such as changing advertiser budgets, your specific content, and the ads your users choose to click will cause your earnings to vary even from day to day.[44]

Publishers are kept in the dark about more than just payout calculation. There are countless stories online about people being banned from Adsense with little to no explanation.[45] Many of these stories have considerable amounts of money in controversy. Recently terminated publishers are often startled to discover, upon attempting to login to Adsense one day, that their account has been disabled and access to earnings and information has been completely frozen, all without a single notification from Google.

Google Adsense earnings are disbursed to publishers monthly,[46] a publisher earning $50 a day through the program could have around $1500 in his account before his earnings are mailed to him, assuming he does not get banned before then. Google often bans accounts due to invalid/fraudulent clicks, although it claims "Clicks and impressions from known sources of invalid activity are automatically discarded."[47]

Publishers and advertisers whose accounts are terminated have a right to know why, but users waive that right upon registration. Under Section 6 of the Google Adsense Online Standard Terms and Conditions, "Google may at any time… terminate this Agreement, or suspend or terminate the participation of any [publisher] in all or part of the [Adsense] Program for any reason."[48]

Google exercises their right to terminate accounts for any reason. Indeed, Google

---

[44] *How Much Will I Earn With Adsense? – Adsense Support,* http://www.google.com/support/adsense/bin/answer.py?hl=en&answer=9902 (last accessed December 4, 2010).

[45] Google Search Results: "Banned from Adsense," http://www.google.com/search?q=Banned+from+Adsense (last accessed December 4, 2010) (Even Google will reveal countless stories about users being banned from Adsense without cause).

[46] *See Google Adsense – Terms and Conditions* § 11, https://www.google.com/adsense/localized-terms (last accessed December 4, 2010).

[47] *How does Google detect invalid clicks? – Adwords Help,* http://adwords.google.com/support/aw/bin/answer.py?hl=en&answer=6114 (last accessed December 9, 2010) (under "Detection and filtering techniques").

[48] *Id.* § 6.

has been sued over this issue alone. In 2007, Aaron Greenspan sued the internet giant in small claims court and won.[49] After being banned from Adsense with little explanation, the Adsense publisher, who also happened to be a writer for The Huffington Post, brought a small claims complaint seeking $761 in damages.[50] He later lost on appeal presumably because the law was on Google's side.[51] It is clear that, in light of Google's conduct, neither openness nor sympathy is at the forefront of their customer service policies. Poor customer service is not an antitrust violation, but the willful acquisition of monopoly power is.

Acquisitions of Companies

Since 2001, Google has acquired at least 85 companies.[52] Many start-ups dream about being acquired by Google which typically consists of a handsome buy-out price, improved job stability, and much-needed financial backing. Google has acquired companies across numerous sectors, from speech synthesis[53] to travel.[54]

Seven of those acquisitions have been in the advertising industry, the largest being Google's acquisition of DoubleClick in 2007 for $3.1 billion dollars. It took U.S. antitrust officials over a year to investigate and approve the merger, and approval was certainly not unanimous. Pamela Jones, FTC commissioner voiced her concerns:

---

[49] *See generally* Greenspan, *supra*.

[50] *Id*.

[51] Greenspan, Aaron, *Why Google Bothered to Appeal a $761 Small Claims Case (and Won),* THE HUFFINGTON POST, http://www.huffingtonpost.com/aaron-greenspan/why-google-bothered-to-ap_b_213176.html (last accessed December 6, 2010) (The author does not specify the court's holding, but the terms of the Adsense agreement permitted Google's conduct).

[52] List of acquisitions by Google, WIKIPEDIA, THE FREE ENCYCLOPEDIA, http://en.wikipedia.org/wiki/List_of_acquisitions_by_Google (last accessed December 7, 2010).

[53] *Can we talk? Better speech technology with Phonetic Arts,* Official Google Blog, December 3, 2010, http://googleblog.blogspot.com/2010/12/can-we-talk-better-speech-technology.html (last accessed December 7, 2010).

[54] *Serial entrepreneur Mike Cassidy sells Ruba to Google*, VENTUREBEAT, May 21, 2010, http://venturebeat.com/2010/05/21/serial-entrepreneur-mike-cassidy-sells-ruba-to-google/ (last accessed December 7, 2010).

> I am convinced that the combination of Google and DoubleClick has the potential to profoundly alter the 21 century Internet-based economy – in ways we can imagine, and in ways we cannot.
>
> I do not doubt that this merger has the potential to create some efficiencies, especially from the perspective of advertisers and publishers. But it has greater potential to harm competition, and it also threatens privacy. By closing its investigation without imposing any conditions or other safeguards, the Commission is asking consumers to bear too much of the risk of both types of harm. The unique confluence of competition and consumer protection issues should have been a call to action for this agency – "the only federal agency with both consumer protection and competition jurisdiction in broad sectors of the economy." Section 5 of the FTC Act is the 30 cornerstone of the Commission's authority to review a wide range of business practices. The agency embraces its dual, but complementary, missions. While the FTC's competition and consumer protection missions focus on different types of conduct, they share the same overall goal: that consumers obtain truthful information about products and services that they can then use to make purchase decisions in a competitive marketplace in which their personal information is safeguarded. This purpose has assumed even greater importance in this dynamic, digital, and global marketplace.[55]

Google's acquisitions are starting to raise concerns from the mainstream media, as well. Wired magazine's Fred Vogelstein summed it up succinctly in 2009:

> [R]ecently, Google's size and ambitions have begun to obscure its halo. Advertisers have watched nervously as the company's share of the search-advertising market has jumped to 75 percent from 50 percent over the past three

[55] Sullivan, Danny, *FTC's Xmas Gift to Google: Approval of DoubleClick Acquisition,* December 20, 2007, http://searchengineland.com/ftcs-xmas-gift-to-google-approval-of-doubleclick-acquisition-12986 (last accessed December 7, 2010) (citing FTC Commissioner Pamela Jones' statements during a press conference).

> years. In 2007, Google attracted a yearlong antitrust review from US and European regulators after it announced plans to acquire online ad firm DoubleClick. In 2008, the DOJ swatted down a search-ad deal Google had made with Yahoo, arguing that it "would have furthered [Google's] monopoly." … And the Federal Trade Commission is looking into whether the Apple board seats held by Google CEO Eric Schmidt and board member Arthur Levinson violate federal antitrust law.[56]

U.S. antitrust officials have not been the only ones to jump in and investigate. Google is currently facing antitrust scrutiny from European regulators, after three companies complained to the commission, alleging Google lowered their search engine ranking because they are Google rivals.[57] The EU admits it is premature to say whether there are any violations, but they are looking into allegations of algorithm impartiality as well as exclusive dealing agreements in the Adsense program.[58]

Privacy Implications

A monopoly over the information sector has inherent privacy implications. Concerns over privacy were realized in 2010 when Google attempted to merge a private application (Gmail) with a public one (Google Buzz), and private user information inadvertently spilled over. Complete strangers were given access to private information, for example, a person's most frequent contacts, and those people's contact information. Nobody was seriously harmed, but non-disclosure agreements were probably breached and reputations were surely damaged as a result.[59]

---

[56] Vogelstein, Fred, *Why Is Obama's Top Antitrust Cop Gunning for Google?,* July 20, 2009, WIRED MAGAZINE, http://www.wired.com/techbiz/it/magazine/17-08/mf_googlopoly#ixzz16mbqHWTg (last accessed December 8, 2010).

[57] Chee, Foo Yun, Felix, Bate, *EU Launches Google investigation after complaints*, REUTERS, November 30, 2010, http://www.reuters.com/article/idUSLDE6AT13Q20101130 (last accessed December 8, 2010).

[58] *See* Waddington, *supra.*

[59] Wauters, Robin, *Google Buzz Privacy Issues Have Real Life Implications,* February 12, 10, TECHCRUNCH, http://techcrunch.com/2010/02/12/google-buzz-privacy/ (last accessed December 6, 2010).

Critics of Google and skeptics in general worry that their information is being sold to advertisers without their consent. Google will argue that it does not sell private information to advertisers; instead it uses information it has on a user to serve more relevant ads, improving ad relevancy and value. At least one class action lawsuit has been filed claiming, "Highly sensitive data and exceedingly personal searches have been innumerably 'sold and resold.'"[60]

Defenses

The internet is open to the world. A strong defense for antitrust claims against Google is that there are no barriers to entry for internet companies, because anyone can purchase a domain name and setup a web site. This argument, while true and applicable to both internet search and internet advertising, overlooks the massive start-up and development costs required to build a search engine or advertising platform capable of competing with Google's.

Google has competitors, past and present. It will argue that it is a survivor in the market, having become so honestly, through efficiency and business acumen. The antitrust laws are designed to encourage efficiency; there cannot be a violation for being the most efficient. They will say every company wants to outperform its competitors, and it should not be punished for doing so. This right is a cornerstone of capitalism, but is subject to the condition that it is not to be used as a cloak for anticompetitive conduct.

In *U.S. v. Aluminum Co. of America* (1945), Judge Learned Hand said that for a monopolist to fall within Section 2 of the Sherman Act, he must have the power and the intent to monopolize.[61] No "specific" intent is required, however, since no monopolist monopolizes unconscious of what he is doing.[62]

In that case, the defendant positioned itself so that every time there was a demand for a new type of product, it was able to meet that demand. By doing that, the court reasoned, the defendant was erecting barriers to competition.

---

[60] *Google Accused of Selling Classified Personal Info,* October 27, 2010, MERINEWS, http://www.merinews.com/article/google-accused-of-selling-classified-personal-info/15833718.shtml (last accessed December 4, 2010).

[61] *U.S. v. Aluminum Co. of America*, 148 F.2d 416, 432 (C.A.2 1945).

[62] *Id.* at 416.

IV. Propose Solutions

Courts have often looked to regulation in the absence of any other feasible antitrust remedy. However, in a case like this, regulation might thwart innovation. As Google grows, privacy implications and the ability to destroy competition grow with it. Without government intervention or investigation, Google may continue to leverage its power to the detriment of customers and competitors.

The problem is that Google does mostly good, and to advocate people to never use their service again would do a disservice to all the good that the company has done and all of the quality services they offer. In recognition of this, critics consider solutions more productive than condemning the search giant altogether.

In 2002, the European Union held a conference on current economics of antitrust regulation in the telecommunications industry, a culmination of a one-year project in which high-level economics and European antitrust experts worked on a number of key issues in the telecommunications sector.[63] Some of the issues discussed were market definition, collective dominance, access to networks, allocation of scarce resources, all key issues arising from currently pending antitrust cases[64].

Economists and antitrust officials agree that in a complex market, competition law may not adequately protect consumers from all of the dangers of monopoly power or even preserve competition. Nonetheless, solutions must be tied closely to the economic harm they are sought to prevent.

Natural monopolies arise where the largest supplier in an industry dominates due to some substantial barrier to entry by competitors, like an enormous initial investment. A natural monopoly is likely to be found where initial start-up costs require laying the infrastructure to support the whole market, because few businesses have the capital to sudden capture an entire market that is already provided for.

Typical regulatory responses in the case of natural monopolies are to do nothing, to set legal limits on a firm's behavior, or to somehow create competition. In selecting a

---

[63] *See generally* Buigues, Pierre-André, Rey, Patrick, *The economics of antitrust and regulation in telecommunications: perspectives for the new European regulatory framework,* EDWARD ELGAR PUBLISHING, (2004).

[64] See *id*. at xiii.

remedy, courts ought not to assume legislative/quasi-legislative roles.[65] The courts do not want to engage in this type of oversight, since it is better left for the board members to make informed business decisions.

Since the 1980s, there has been a global trend toward deregulation, in which systems of competition are established, instead of attempting to limit a particular firm's behavior. As renowned economist and Chicago School of Economics pioneer Milton Friedman said in his book *Capitalism and Freedom*, "there is only a choice among three evils: private unregulated monopoly, private monopoly regulated by the state, and government operation."[66] He points out that no particular choice is "uniformly preferable" to another.[67] His assertions are not completely cynical, however. Friedman admits, "either public regulation or ownership may be a lesser evil" for "essential" commodities (like water or electricity) where the "monopoly power is sizeable."[68] He ultimately argues that antitrust laws do more harm than good, and "we would be better off if we didn't have them at all, if we could get rid of them."[69]

That being said, it is important to approach antitrust remedies as unobtrusively as possible, taking only those steps necessary to protect competition. If a court were to find Google in violation of the Sherman Act, some possible "solutions" would be to appoint someone to monitor Google algorithms, impose a fine or penalty for prior violations, dissolve the company, or do nothing. Similarly to the Sherman Act itself, some of these

---

[65] Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 124 S. Ct. 872, 157 L. Ed. 2d 823 (2004) at 11 ("[I]mposing on such a monopolist an antitrust duty to provide such competitors with access to its operational facilities would, quite improperly, require the courts to assume the quintessential legislative/quasi-legislative role of establishing the terms of that compelled access.").

[66] Friedman, Milton, *Capitalism and Freedom*, 40th anniversary ed., THE UNIVERSITY OF CHICAGO PRESS, 139 (1962).

[67] *Id.* at 141.

[68] *Id.* at 29.

[69] Friedman, Milton, *Policy Forum: The Business Community's Suicidal Impulse,* CATO POLICY REPORT, Vol. 21, No. 2. Published March/April 1999, http://www.cato.org/pubs/policy_report/v21n2/friedman.html, (accessed December 6, 2010) ("And so over time I have gradually come to the conclusion that antitrust laws do far more harm than good and that we would be better off if we didn't have them at all, if we could get rid of them.").

"solutions" may be too extreme or ineffective to deal with Google's monopolies in the proper manner. These potential "solutions" are discussed below.

Transparency

As discussed above, publishers and advertisers have a right to know certain information that is currently being withheld from them. Advertisers should demand that Google show them where their money is going, and how much of it Google is keeping. Publishers should know how much they could and should be making, and why that is the case. By forcing transparency on Google's payout calculation algorithms, publishers and advertisers will be better able to make an informed decision.

This solution is not without its problems, however. Google would probably like to show advertisers as much information as they can about their ads, to improve efficiency and performance, but that information does not just rise up out of thin air. It takes a team of coders to gather the information and display it in a way that makes sense to the average customer.

Monitor Algorithms

A highly technical problem may require a highly technical solution. The New York Times' Brad Stone proposes the idea of appointing someone to monitor auction algorithms, ensuring fair play in organic or "algorithmic" search results.[70] He concludes by saying, "Google started off saying they were going to treat everything on the Web neutrally. That is the basis on which they secured dominance. And now they've changed the rules."[71]

The problem with such a solution is that it only addresses one aspect of the problem, i.e. the potential for Google's unlawful bolstering of subsidiaries through manipulating search results. Additionally, assuming a single person could even realistically make such a determination may be incredibly naïve. The methods Google

[70] Stone, Brad, *Regulators Are Watching Google Over Antitrust Concerns,* May 23, 2010, THE NEW YORK TIMES, http://www.nytimes.com/2010/05/23/technology/23goog.html?pagewanted=1&_r=2 (last accessed December 8, 2010).

[71] *Id.*

uses to rank web pages for display in search results, arguably the world's most valuable trade secret since the Coca-Cola recipe, is unlikely to evidence anticompetitive effect by a simple line-by-line scanning of code.

Furthermore, the classic concern for stifling of innovation arises when considering injecting a watchdog into the core of Google's operations. This solution, while desirable and effective for the purposes intended, might oversimplify the problem.

Fines and Penalties

As a deterrence and punishment for prior conduct, fines and penalties may be assessed on companies who abuse their power. However, fines and penalties may be ineffective to ensure Google does not abuse its market power. A fine can only assess actual damages, not potential damages. Therefore, a fine might not influence Google's future decision making. It would merely punish them for past decisions.

Having fined technology companies like Microsoft and Intel in the past, the EU is not afraid to assess fines and penalties on potential monopolists.[72] European policy is not against using fines to deter monopolistic behavior, but a possible fine should never be part of a cost-benefit analysis by a person making a business decision. Furthermore, a fine would not directly facilitate and protect competition, the ultimate goal of antitrust law.

Break Up Google

To say breaking up Google would be difficult would be a tremendous understatement. Dissolving Google would involve restructuring the world's largest collection of information, placing thousands of jobs at risk, and tempting public revolt.

Technical difficulties aside, one cannot help but wonder what a dissolved Google would look like. Search Engine Land's editor-in-chief Danny Sullivan has entertained a remarkably in-depth and thorough hypothetical, which answers just such a question.[73] He reaches a conclusion similar to that reached by this very article. In his final comment, with reference to FTC Commissioner Pamela Jones' publicized concern over Google's

[72] *Id.*

[73] See Sullivan, *Deconstructing Google*, *supra.*

growing size and market power, he suspects that "if [Google] is not violating any existing laws, powerful interests will ultimately decide new ones will be needed."[74]

On the other side of the coin, some economics and capitalists would argue to do the extreme opposite: do nothing at all. Dissolving the company could parallel the wasteful course of conduct pursued in *Bell Atlantic v. Twombly,* where AT&T was dissolved into smaller companies, or "baby bells," which each was eventually acquired back by AT&T.[75]

Do Nothing

Antitrust cases can last decades, and conduct tending to unlawfully create a monopoly may often lose its effect before a judgment is rendered. Every technology has a "shelf life," or a limited period of time during its life cycle, in which business gain can be realized.[76] The internet's open nature facilitates competition; the possibility of a sudden shift in market share should not be discounted. The problem may resolve itself, in which case any governmental or judicial interference would merely be a hindrance to the workings of a free market.

This particular "solution" is favorable because it does not pose the risk of stifling Google's natural development. Furthermore, refraining from interference may actually serve public privacy interests because Google may be better suited to handle private information than their competitors.

An example of such well-executed handling of private information is Google Checkout, a payment processing gateway that enables e-commerce merchants to process payments through Google. Consumers benefit because customer credit card data is stored with Google, a company people know and trust. Merchants benefit because they can accept credit card payments on their website while avoiding high start-up costs or deterring users from checking out. By probing into the anticompetitive nature of

---

[74] *Id.*

[75] *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544 (2007).

[76] Sagar, Ambuj, Cleveland, Cutler, *Technological innovation*, ENCYCLOPEDIA OF EARTH, http://www.eoearth.org/article/Technological_innovation (last accessed December 5, 2010).

Google's business decisions, the company may be less likely to take major technological leaps.

V. Conclusion

Google is a unique and innovative company, the likes of which antitrust regulators have never seen before. There is a great and justified temptation to investigate any company with so much market influence. Monopolies tend to destroy competition, which has a negative impact on the economy and goes counter to fair market notions. On the other hand, capitalists and *laissez-faire* idealists might prefer leaving the market alone, leaving the better man to reap his justly-earned monopoly profits.

Proponents of a Google antitrust action may have trouble proving a violation of the Sherman Act. A Section 2 violation, which requires the "willful acquisition or maintenance of monopoly power," will be difficult to prove because there are problems with market definition as well as standing. Furthermore, proving a violation under the essential facilities doctrine may not work because the scope of such a claim offers little remedy to monopolistic conduct in other sectors.

An antitrust claim against Google is not completely farfetched, however. Persuasive evidence suggests Google may be engaged in some anticompetitive conduct, from algorithm impartiality to acquisitions of competitors, further conferring monopoly power.

Google's market power in the internet advertising and internet search markets provides the company with heavy control over advertisers and publishers, as well. internet advertisers should demand certain rights from Google, including the right to know where their money is going and which ads a person is clicking on. Publishers need to know how much they could be earning, should be earning, and why- not just how much they earned. This information is available to Google in some form or another, yet they made a conscious (or unconscious) decision to exclude it.

Google's programs offer advertisers and publishers insight currently unmatched by anyone. However, that fact alone should not permit the company to withhold material information from their customers in the name of complexity, user interface design, or any other scapegoat.

There are also privacy concerns that arise in considering Google's monopoly power, such as the inadvertent disclosure of sensitive information, and the risks associated with storing such information. With regard to privacy on Google, there are arguments on both sides of the debate. Inherent in rich information storage is the risk of becoming a target for hackers, but perhaps Google is best equipped to manage such risk.

Google may have a monopoly over the internet advertising industry in the U.S., but that does not make it illegal or even necessarily bad. Even if a court found a violation of the Sherman Act, the best course of action may be to do nothing at all. Some minimal checks and balances on Google's algorithms may be warranted to ensure fair play is taking place, but could be difficult to implement and may place the judiciary in a quasi-legislative position. Assessing fees and penalties on the company may serve as a stern warning, but might not protect public interests well enough in the future. Dissolution might distribute power and temporarily create competition, but may not be worth the trouble.

Be it solution or no solution, it is unarguable that Google has obtained considerable power, the maintenance of which is at least worth looking into. While a future without Google's dominance seems improbable, antitrust laws are designed to give competition a chance to foster along each step of the way.

The policy and theory behind supporting a competitive market and promoting competition is to give companies a reason to be innovative, but Google already has such a reason. Without being innovative, and providing new products and new features, competition will have a chance to take the giant down.[77]

[77] Distinguishing this article from many referenced herein, this author resists the temptation to indulge a cheeky play on Google's "don't be evil" motto.

Bibliography

Cases

American Tobacco Co. v. U.S., 328 US. 781, 66 S. Ct. 1125, 90 L. Ed. 1575 (1946) 6

Arroyo-Melecio v. Puerto Rican American Ins. Co., 398 F.3d 56 (1st Cir. 2005)..... 7

Bell *Atlantic Corp*. v. Twombly, 550 U.S. 544 (2007)..... 26

CCBN.Com, Inc. v. Thomson Financial, Inc., 270 F. Supp. 2d 146 (D. Mass. 2003) 8

Copperweld Corp. v. Independence Tube Corp., 467 U.S. 752, 104 S. Ct. 2731, 81 L. Ed. 2d 628 (1984)..... 6

F.T.C. v. Arch Coal, Inc., 329 F. Supp. 2d 109 (D.D.C. 2004), case dismissed, 2004 WL 2066879 (D.C. Cir. 2004). 7

Hughes Automotive, Inc. v. Mid-Atlantic Toyota Distributors, Inc., 543 F. Supp. 1056 (D. Md. 1982) 8

Pacific Bell Telephone Co. v. Linkline Communications, Inc., 129 S. Ct. 1109 (2009) ... 5

Spirit Airlines, Inc. v. Northwest Airlines, Inc., 431 F.3d 917 (6th Cir. 2005)..... 6

U.S. v. Aluminum Co. of America, 148 F.2d 416, 432 (C.A.2 1945)..... 21

U.S. v. Griffith, 334 U.S. 100, 68 S. Ct. 941, 92 L. Ed. 1236 (1948) 6

Valet Apartment Services, Inc. v. Atlanta Journal and Constitution, 865 F. Supp. 828 (N.D. Ga. 1994) 8

Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 124 S. Ct. 872, 157 L. Ed. 2d 823 (2004). 5, 22

Statutes

15 U.S.C § 2..... 3, 4, 5

15 U.S.C. § 15..... 5, 10

Other Authorities

Brantley, Peter, *Class Action Monopoly*, November 6, 2008, http://blogs.lib.berkeley.edu/shimenawa.php/2008/11/06/class-action-monopoly (last accessed December 5, 2010).. 14

Can we talk? Better speech technology with Phonetic Arts, Official Google Blog, December 3, 2010, http://googleblog.blogspot.com/2010/12/can-we-talk-better-speech-technology.html (last accessed December 7, 2010).. 18

Chee, Foo Yun, Felix, Bate, *EU Launches Google investigation after complaints*, REUTERS, November 30, 2010, http://www.reuters.com/article/idUSLDE6AT13Q20101130 (last accessed December 8, 2010). 19

Clemons, Eric, *What An Antitrust Case Against Google Might Look Like,* TechCrunch, March 1, 2009, http://www.techcrunch.com/2009/03/01/what-an-antitrust-case-against-google-might-look-like/ (last accessed December 10, 2010)..... 12

CPM – definition, information, sites, articles, MarketingTerms, http://www.marketingterms.com/dictionary/cpm/ (last accessed December 2, 2010). .. 9

Edelman, Benjamin, *Hard-Coding Bias in Google "Algorithmic" Search Results*, November 15, 2010, http://www.benedelman.org/hardcoding/ (last accessed December 2, 2010). 13

Edelman, Benjamin, *Towards a Bill of Rights for Online Advertisers*, September 21, 2009, http://www.benedelman.org/advertisersrights/ (last accessed December 2, 2010). 15

Epstein, Alex, *An antitrust case against Google: a threat to free competition,* Ayn Rand Center for Individual Rights, March 20, 2009, http://blog.aynrandcenter.org/an-antitrust-case-against-google-a-threat-to-free-competition/ (last accessed December 2, 2010) 12

Google Accused of Selling Classified Personal Info, October 27, 2010, MERINEWS, http://www.merinews.com/article/google-accused-of-selling-classified-personal-info/15833718.shtml (last accessed December 4, 2010). 20

Greenspan, Aaron, *Why Google Bothered to Appeal a $761 Small Claims Case (and Won),* THE HUFFINGTON POST, http://www.huffingtonpost.com/aaron-greenspan/why-google-bothered-to-ap_b_213176.html (last accessed December 6, 2010) (The author does not specify the court's holding, but the terms of the Adsense agreement permitted Google's conduct). 17

Greenspan, Aaron, *Why I sued Google (and Won)*, THE HUFFINGTON POST, March 6, 2009, http://www.huffingtonpost.com/aaron-greenspan/why-i-sued-google-and-won_b_172403.html, (last accessed December 6, 2010)..... 11

Gross, Doug, *Google vs. China: Free speech, finances, or both?* January 13, 2010, CNN, http://articles.cnn.com/2010-01-13/tech/google.china.analysis_1_google-network-thousands-of-search-terms-search-engine?_s=PM:TECH (last accessed November 10, 2010) 3

Holtz, Julia, *Committed to Competing Fairly,* GOOGLE PUBLIC POLICY BLOG, February 23, 2010, http://googlepublicpolicy.blogspot.com/2010/02/committed-to-competing-fairly.html (last accessed December 6, 2010). 12

How Much Will I Earn With Adsense? – Adsense Support, http://www.google.com/support/adsense/bin/answer.py?hl=en&answer=9902 (last accessed December 4, 2010). 16

Labovitz, Craig, *Google Sets New Internet Traffic Record,* October 25, 2010, http://asert.arbornetworks.com/2010/10/google-breaks-traffic-record/ (last accessed December 9, 2010) 3

List of acquisitions by Google, WIKIPEDIA, THE FREE ENCYCLOPEDIA, http://en.wikipedia.org/wiki/List_of_acquisitions_by_Google (last accessed December 7, 2010). 17

Nerney, Chris, *Internet Advertising Revenue Hits New Record in Q3,* IT WORLD, November 17, 2010, http://www.itworld.com/internet/128038/internet-advertising-revenue-hits-new-record-q3 (last accessed 12 December 2010) 3

Nguyen, Son T., *Popular Pricing Models for Online Advertisers*, http://ezinearticles.com/?Popular-Pricing-Models-For-Online-Advertising&id=4862074 9

See generally Buigues, Pierre-André, Rey, Patrick, *The economics of antitrust and regulation in telecommunications: perspectives for the new European regulatory framework,* EDWARD ELGAR PUBLISHING, (2004). 22

Serial entrepreneur Mike Cassidy sells Ruba to Google, VENTUREBEAT, May 21, 2010, http://venturebeat.com/2010/05/21/serial-entrepreneur-mike-cassidy-sells-ruba-to-google/ (last accessed December 7, 2010). 18

Sullivan, Danny, *Deconstructing Google: After the Antitrust Breakup,* SEARCH ENGINE LAND, December 30, 2007, http://searchengineland.com/deconstructing-google-

Treatises

Holmes, William C., Esq., *Antitrust Law Handbook,* § 9:8 (2010). 11

Letwin, William L., *Congress and the Sherman Antitrust Law: 1887-1890*, 23 U.Chi.L.Rev 221 (1956). 5

Sagar, Ambuj, Cleveland, Cutler, *Technological innovation*, ENCYCLOPEDIA OF EARTH, http://www.eoearth.org/article/Technological_innovation (last accessed December 5, 2010) 25

Stone, Brad, *Regulators Are Watching Google Over Antitrust Concerns,* May 23, 2010, THE NEW YORK TIMES, http://www.nytimes.com/2010/05/23/technology/23goog.html?pagewanted=1&_r=2 (last accessed December 8, 2010). 23

Waller, Spencer Weber, Frischmann, Brett M., *Revitalizing Essential Facilities,* ANTITRUST LAW JOURNAL, Vol. 75 No. 1 2008, February 7, 2007 14

Websites

BidVertiser – Frequently Asked Questions (Publishers), http://www.bidvertiser.com/bdv/BidVertiser/bdv_publisher_faq.dbm#3 (last accessed December 7, 2010) (under "What makes BidVertiser different from other ad networks?"). 10

BidVertiser – Pay Per Click Advertising On Sites Of Your Choice, http://www.bidvertiser.com/ (last accessed December 9, 2010). 10

Google LUNAR X Prize, http://www.googlelunarxprize.org, (last accessed November 10, 2010) 3

Google Search Results: "Banned from Adsense," http://www.google.com/search?q=Banned+from+Adsense (last accessed December 4, 2010) 16

How does Google detect invalid clicks? – Adwords Help, http://adwords.google.com/support/aw/bin/answer.py?hl=en&answer=6114 (last accessed December 9, 2010) (under "Detection and filtering techniques"). 17

See Google Adsense – Terms and Conditions § 11, https://www.google.com/adsense/localized-terms (last accessed December 4, 2010). 16