The Cost of Lost Privacy: Search, Antitrust and the Economics of the Control of User Data[1]

Nathan Newman, New York University Information Law Institute Fellow

Abstract

This article is a case for reorienting many antitrust investigations – and more generally regulatory approaches -- to focus on how control of personal data by corporations can entrench monopoly power and harm consumer welfare in an economy shaped increasingly by the power of "big data." With firms knowing far more about consumers than those consumers know about their options in the marketplace, rising information asymmetry in markets is translating into rising overall economic inequality in the economy as well.

The core source of value being delivered to advertisers by a company like Google (as with many "new media" companies) is by all accounts how well it knows its users because of its vast databases of user personal data. As section II of this article will argue, what is largely missed in analyses defending Google from antitrust action is how that ever expanding control of user personal data and its critical value to online advertisers creates an insurmountable barrier to entry for new competition. And, contra the idea that Google just inherited that business advantage

---

[1] I'd like to thank James Boyle, Pamela Jones Harbour, Josh Mason, Suresh Naidu, Frank

through its innovation in search engine technology, section III of this article will detail how Google has aggressively expanded its control of user data through expanding into new product sectors to collect additional user data with the intent to use its presence in those other markets to reinforce its core search advertising monopoly. Beyond the general expansion into tied markets for user data, Google's "bad acts" have included multiple violations of the law through invading user privacy in pursuit of control of user data.

Section IV emphasizes the broad consumer harm from the extraction of personal user data deployed by Google for the benefit of its advertisers. The lack of competition means users of Google do not receive the full economic value of the personal data they provide Google. Without viable alternatives to Google, you therefore end up with a stunted "market" for valuing user privacy, so Google feels less and less compunction about violating personal privacy to benefit its advertising customers. More broadly, the deeper harm to consumers from Google's power in the market — and one that is at the heart of the increasing economic equality in our society — is the way profiling by Google of its users for advertisers allows the kind of price discrimination and predatory marketing we saw in the subprime housing bubble globally and in a range of other sectors.

In section V, the article proposes remedies that can address Google's dominance in three major ways, separately and in combination: (1) reduce Google's control of overall user data, (2) create a real market for user data by empowering users, and (3) impose public interest obligations on Google to restrain damage to consumer welfare.

In section VI, the article concludes by noting how issues raised by the article present some fundamental challenges to the Chicago School approach, including highlighting how the lock-in

of monopoly in online markets calls for earlier intervention in technology markets and a much broader recognition of how expanding information asymmetry due to data mining undermines the hope that the market itself will curb monopoly abuses in the economy.

I. Introduction

A. The Challenge of New Online Markets to Neoclassical Economic Theory

In the ideal of neoclassical economics, all exchanges happen in a market where buyers and sellers are fully informed of all options and prices. Prices are offered at equilibrium of market demand and supplier marginal costs and competition protects consumers from predatory action by sellers. Antitrust action by government is largely needed only based on illegal actions or nefarious collusion by players in the market – and such intervention is rarely needed or should happen only with great hesitancy according to the neoclassical economic view often associated with the "Chicago school" of legal analysis.

Now, such an ideal is rarely attained even in traditional markets, and new online markets -- involving goods based largely on information such as social media, online search and a whole variety of other online services – further undermine many of the assumptions of neoclassical economics. Marginal costs of production are often zero or very close to zero[2], network effects

[2] Thomas A. Piraino, *A Proposed Antitrust Approach to High Technology Competition,* 44 WM. & MARY L. REV. 65, 96 (2002) ("[A] cost-based [antitrust] rule allows high technology firms to evade predatory pricing liability entirely, because the marginal cost of producing most intellectual property is zero."); (Ariel Katz, *Making Sense of Nonsense: Intellectual Property, Antitrust, and Market Power,* 49 ARIZ. L.

grant competitive advantages that undermine simple analysis of "equilibrium" prices[3], and the existence of software standards and the need for interoperability between products creates new antitrust concerns.[4]

With the increasing mass control of consumer data by online services such as search, social media and a range of advertising-supported sites and apps, we have an additional factor complicating the neoclassical economic story. The rise of "big data" as it's sometimes labeled means that control of information, deemed the "new oil"[5] of the information economy, is skewed towards a few players with both the concentrated data processing power and supply of user data to dominate a particular sector.

This concentrated control of user data gives such companies not just a competitive advantage vis-à-vis their competitors but also, with companies knowing intimate details about the preferences of consumers, skews markets against consumers who lack similar data about those companies or their options in negotiating terms with those companies. In the case of search, for example, a service predicated on helping consumers address their ignorance of their options, this

---

REV. 837, 857 (2007) (marginal cost of IP goods approaches zero, complicating antitrust analysis); more cites

[3] David A. Balto, *Networks and Exclusivity: Antitrust Analysis to Promote Network Competition*, 7 GEO. MASON L. REV. 523 (1999) (addresses emerging issues involving exclusivity and networks in antitrust analysis); Steven C. Salop & R. Craig Romaine, *Preserving Monopoly: Economic Analysis, Legal Standards, and Microsoft*, 7 GEO. MASON L. REV. 617 (1999) ("finding of monopoly power is not implausible in a market subject to scale economies and strong network effects"); more cites

[4] Daniel J. Gifford, *Developing Models For A Coherent Treatment Of Standard-Setting Issues Under The Patent, Copyright, And Antitrust Laws*, 43 IDEA 331 (2003) ("policies favoring interoperability and the open markets that interoperability entails are favored"); Francois Leveque, *Innovation, Leveraging and Essential Facilities: Interoperability Licensing in the EU Microsoft Case,* 28 WORLD COMPETITION 71, 75 (2005); more cites

[5] Perry Rotella, *Is Data The New Oil?,* FORBES, APR. 2, 2012, HTTP://ONFORB.ES/HDO4C4 (noting prevalence and history of term)

even further highlights the limits of any economic assumptions based on consumers having full knowledge in the marketplace.

With Google processing 65-percent of U.S. search queries, and earning 78% of U.S. search advertising revenue (and 85% of global search revenue)[6], antitrust authorities around the world have targeted the company for its dominance.[7] As will be discussed in Section 2 of this article, not only does Google have an overwhelming share of the search advertising market, but it is able to charge a far higher price to advertisers for each "click" on an ad with strong evidence indicating that higher "cost per click" is due to the overwhelming control of user data Google has.[8]

While its control of user data has not been central to those investigations so far, antitrust authorities have noted the relationship of that control to potential antitrust concerns.[9] In fact, Federal Trade Commissioner J. Thomas Rosch criticized his colleagues in January 2013, when the FTC dismissed one antitrust approach to Google, for not even investigating the issue of

---

[6] ZenithOptimedia, *Quadrennial events to help ad market grow in 2012 despite economic troubles*, Dec. 5, 2011, http://zenithoptimedia.blogspot.com/2011/12/quadrennial-events-to-help-ad-market.html. See also RKG, *RKG Digital Marketing Report: Q1.2012*, April 11, 2012; http://www.rimmkaufman.com/thought-leadership/quarterly-reports/q1-2012/; Michael Liedtke, *Microsoft takes $6.2B hit to account for ad woes*, ASSOCIATED PRESS, Jul 2, 2012, http://bit.ly/N5DCLB.

[7] European Commission, *Antitrust: Commission Probes Allegations of Antitrust Violations by Google*, Brussels (November 30, 2010); *Google Faces Texas Ag Inquiry, Settles Privacy Suit* , REUTERS (September 3rd, 2010); *Italy Launches Antitrust Probe Of Google News*, LAW 360 (August 27, 2009); *French Mapmaker Takes Google Maps To Court* , RFI, (July 29, 2009), available at http://www.rfi.fr/actuen/articles/115/article_4550.asp; U.S. v. Google Inc. , Case No: 1:11-Cv-0,0688; Tradecomet.Com LLC v. Google Inc. , Case No.09-Cv-01400; Google, Inc v. Mytriggers.Com, Inc. , Case No. 09-Cv-1483

[8] See **Section II.**

[9] Joaquín Almunia, Vice President of the European Commission responsible for Competition Policy**,** argued in a recent speech that "exclusive access to personal data in a given market could give rise to concentration concerns." (*Competition and personal data protection,* PRIVACY PLATFORM EVENT: COMPETITION AND PRIVACY IN MARKETS OF DATA, NOV. 26, 2012; HTTP://BIT.LY/UMSC5N)

Google's collection of user data in the FTC's antitrust proceedings, since Google's "gathering of information about the characteristics of a consumer is done… to maintain a monopoly or near-monopoly position."[10] This article is largely a case for reorienting many antitrust investigations in the technology sphere – and more generally regulatory approaches -- to focus far more on the issue of how control of user data can entrench monopoly power and harm consumer welfare in an economy shaped increasingly by the power of companies collecting personal data.

B. Privacy, Personal Data and Rising Inequality

Parallel to the antitrust issue, search and related online services have provoked debates about the loss of individual privacy, but this is often framed more around an individual sense of unease at surveillance of their private lives than how a shift in knowledge about individuals to corporate hands should force us to reevaluate our economic models and regulatory tools.

As this article will detail, Google's ascension as a dominant player across a range of Internet services is giving its advertisers a whole series of tools to target customers based on their individual preferences, physical location, and other characteristics. This is part of a rising asymmetry in knowledge between companies and their customers across the economy due to the rise of data mining and the power of "big data."

Joseph Stiglitz, former World Bank Chief Economist and Economics Nobel Prize Winner, has been an intellectual leader on the issue of how information asymmetry in particular markets undermines the easy assumptions of many economists that competition will correct problems of

[10] Concurring and Dissenting Statement of Commissioner J. Thomas Rosch Regarding Google's Search Practices, *In the Matter of Google Inc.,* FTC File No. 111-0163, fn 1, January 3, 2013, http://1.usa.gov/TNx7nc.

monopoly. Information is itself a commodity and particular companies can in Stiglitz's words "appropriate the returns to creating information for economic advantage in the market place."[11] As this article will argue, this leaves a company like Google with the economic incentive, pushed by advertisers seeking their own information advantage in marketing to users, to increasingly violate user privacy to appropriate more and more information to solidify its economic dominance, all while making it less economically possible for potential competitors to challenge Google.

With inequalities of information playing an ever-greater role, market equilibriums are no longer necessarily stable and consumers (and regulators) cannot depend on the market to deliver optimal consumer welfare. More broadly, Stiglitz and allied economic thinkers argue increasing information asymmetry feeds increasing economic inequality as well, such that the "result from the new information economics is that issues of efficiency and equity cannot easily be delinked."[12] The fact that many of Google's largest advertising customers in the mid-part of the last decade were linked to the subprime mortgage industry, as will be detailed later in this article,[13] is just one indicator that understanding the dynamics of the search advertising sector may give insight into larger problems of market failure, predatory firms and rising economic inequality in our society.

---

[11] Joseph E. Stiglitz, *Information and the Change in the Paradigm in Economics,* 92 THE AMERICAN ECONOMIC REVIEW 460, 463 (Jun., 2002); see also Akerlof, George A., *The Market for Lemons: Quality Uncertainty and the Market Mechanism*, QUARTERLY JOURNAL OF ECONOMICS, August 1970, 84:3, 488-500;
[12] Stiglitz 2002 at 479.
[13] See Section IV.

With the information asymmetries driven by data mining and behavioral profiling, Google facilitates exploitation of user data in the online marketplace in ways that de facto transfer wealth between the broader population to its corporate advertisers. Given that a primary user harm identified by this analysis is not just narrow economic profits returned to Google, but a much more fundamental enrichment of its advertisers at the expense of average consumers' wallets and privacy, this analysis also challenges the narrow conception of antitrust as a tool for maintaining competition in the abstract but argues for it being seen as a broader tool for promoting economic equality in more structural terms.

While many antitrust scholars see antitrust action as a limited tool for restoring the natural allocative efficiency of the market,[14] if information asymmetry and the continual disruptions of equilibrium are constants as economists like Stiglitz argue, then such a pure efficiency analysis fails, especially in information markets themselves like online advertising. Where individuals are not perfectly informed of prices and quality differences, there is not necessarily an equilibrium price.[15] And in a case where firms can differentiate between customers, as Google allows through behavioral profiling based on user data, traditional neoclassical market analyses further fail as sellers slice markets into segments based as much on the relative ignorance of different market segments of consumers as on any abstract demand curve.[16] Most important to antitrust

---

[14] See Robert Bork, THE ANTITRUST PARADOX 107-15 (1978); Richard A. Posner, ANTITRUST LAW 2.
[15] S. Salop and J. E. Stiglitz, *The Theory of Sales: A Simple Model of Equilibrium Price Dispersion with Identical Agents*, THE AMERICAN ECONOMIC REVIEW, Vol. 72, No. 5 (Dec., 1982), 1121-1130, 1121 (Where "information is costly to gather [and] individuals may not be perfectly informed about the prices (or qualities) of what is being sold… the law of the single price does not obtain.")
[16] *Id.* at 1122. ("if firms have access to devices…which allow the firm to differentiate between different groups in the population… and, if it is costly to enter the market, no equilibrium exists"); Steven Salop, *The Noisy Monopolist: Imperfect Information*, *Price Dispersion and Price Discrimination,* THE REVIEW

analysis, strategic decisions by dominant sellers themselves can shape the multiple equilibria prices in ways that can further entrench their dominance.[17]

Other scholars have argued that the original intent of antitrust was not to act as a meta-consumer protection law simply policing an ideal market, but was focused more specifically on challenging the wealth transfers from the public to monopolists and oligopolists: "Congress passed the antitrust laws to further economic objectives, but primarily objectives of a distributive rather than of an efficiency nature," writes Robert Lande. "In other words, Congress was concerned principally with preventing 'unfair' transfers of wealth from consumers to firms with market power."[18]

In the case of search and search advertising, this article will illustrate how "unfair" can be understood operationally in this case in terms of a dominant search advertising company exploiting consumer ignorance through data mining to enrich both itself and its advertisers at consumer expense.

D. Understanding Google's Business Model – and the Implications for Antitrust

In many ways, the subtlety of Google's business model illustrates exactly the complexity of new information markets that makes simpler Chicago School economic models unlikely to be

---

OF ECONOMIC STUDIES, Vol. 44, No. 3 (Oct., 1977), pp. 393-406. See Rosa-Branc Esteves and Joana Resende, *Competitive Targeted Advertising with Price Discrimination*, Working Paper, March 2011, http://ideas.repec.org/p/nip/nipewp/08-2011.html (discussed in Sec. IV).

[17] J. Stiglitz and A. Weiss, *Alternative Approaches to Analyzing Markets with Asymmetric Information: Reply*, THE AMERICAN ECONOMIC REVIEW, Vol. 73, No. 1 (Mar., 1983), pp. 246-249.

[18] Robert Lande, *Wealth Transfers as the Original and Primary Concern of Antitrust: The Efficiency Interpretation Challenged*, 34 HASTINGS L.J. 65, 68 (1982). See also Louis B. Schwartz, *"Justice" and Other Non-Economic Goals of Antitrust*, 127 U. PA. L. REV. 1076, 1078 (1979).

applicable. They also highlight why depending on the market to correct monopoly dominance in such sectors is a poor strategy and why government intervention is needed, and needed at an earlier point than conventionally understood.

With few companies does a question like "Is Google a monopoly?" leave so many dangling additional questions, such as "a monopoly selling what exactly?" and "how can consumers be hurt by a company giving its product away?"

Consumers rightly admire the technology behind products like Google's search engine, its Gmail service, its YouTube videos and its array of other services, all provided for free. On its face, why should any consumer complain? No less a figure in antitrust than Robert Bork has dismissed both European and U.S. investigations as missing what a sweet deal Google is for the average person: "There is no coherent case for monopolization because a search engine, like Google, is free to consumers[19] and they can switch to an alternative search engine with a click."[20]

However, users of Google Search, Gmail and its other products are not Google's customers; they are the product sold to Google's real clients, its advertisers.

---

[19] In a similar vein, see Joshua Wright, *What's An Internet Monopolist? A Reply to Professor Wu*, TRUTH ON THE MARKET/ TECHNOLOGY LIBERATION FRONT, November 23, 2010, http://bit.ly/gStRnL ("these monopolists are really pathetic at extracting profits, as most of them give away their products for free.")

[20] Robert Bork, *Antitrust and Google*, CHICAGO TRIBUNE, April 6, 2012, http://trib.in/Hk1Vbz. See also David Balto, *Google is No Microsoft*, HUFFINGTON POST, June 30, 2011, http://huff.to/jfDamv ("consumers face zero switching costs!"), Stephen D. Houck, *Search, Innovation, and Antitrust*, HUFFINGTON POST, November 10, 2011, http://huff.to/vay7p4 ("It is even easier for Google's users to switch to other products than it was for IBM's and Kodak's customers.")

In the words of media studies professor, Siva Vaidhyanathan, "we have allowed everything to be Googlized" and resold to the company's advertisers. [21] This reality is sometimes obscured in discussions of Google being involved in "two-sided" markets" or being an "intermediary"[22] between users and advertisers, similar to dating services or credit card exchange systems that connect merchants and credit card users. But unlike such two-sided markets, which are defined by economist David Evans as a market where "there are two sets of customers who, in effect, need each other,"[23] Google's search users don't need advertisers, but advertisers need users. While some users find some search advertising useful, it is not an essential feature from a user perspective and even objectionable to many, unlike the mutual need of merchants and users for each other in credit card exchanges or men and women on dating sites often highlighted in theory around two-sided markets.[24]

---

[21] Siva Vaidhyanathan, THE GOOGLIZATION OF EVERYTHING (AND WHY WE SHOULD WORRY, 3 ("We – our fancies, fetishes, predilictions and preferences – are what Google sells to advertisers.")

[22] Robert H. Bork & J. Gregory Sidak, *What Does The Chicago School Teach About Internet Search And The Antitrust Treatment Of Google?,* Paper released at American Enterprise Institute, http://bit.ly/Pg3Rqt. (search "brings together two parties—the search user and the advertiser—to an exchange that occurs over the Internet."); cites to David S. Evans, *The Antitrust Economics of Multi-Sided Platform Markets*, 20 YALE J. ON REG. 325 (2003); Jean-Charles Rochet & Jean Tirole, *Platform Competition in Two-Sided Markets*, 4 J. EUR. ECON. ASS'N 990 (2003). See also Geoffrey Manne *Some Much-Needed Antitrust Skepticism on Senate Letter Urging FTC Google Investigation*, TRUTH ON THE MARKET, December 20, http://bit.ly/Ou3TcJ (referring to "two-sided markets like Google's (where, in a sense, one platform produces two inter-related products (searches and ancillary Google stuff for users and advertising space for advertisers))").

[23] David Evans, *The Antitrust Economics of Two-Sided Markets*, Working Paper, November 14, 2002, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=332022

[24] David Evans classifies two-sided markets as fulfilling a matchmaker role, yet never fully engages the examples like Google and other caseswhere both sides of the "two-sided market" do not necessarily seek each other. See David Evans, *Two-Sided Market Definition* (November 11, 2009). ABA Section of Antitrust Law, MARKET DEFINITION IN ANTITRUST: THEORY AND CASE STUDIES, at 5, http://ssrn.com/abstract=1396751

Google essentially makes its revenue only from the advertiser-side of its operations. The fact that the only "market" on the user side is one of users bartering their personal privacy in exchange for access to Google's online services casts further doubt on referring to this simply as a two-sided "market."[25] Part IV of this article will highlight how the primitive barter nature of Google's relationship with its users has implications for assessing the consumer harm from the company's business model and its dominance.

So if advertisers are the main source of Google's and its rivals potential revenue, from a basic antitrust viewpoint the real question is how easy or likely it is for those advertisers to switch to an alternative search advertising platform?

But even that question does not get to the heart of what makes Google different from even traditional advertising media or, more broadly, how networked and social systems of communication are upending how to measure market power for antitrust purposes. Even to talk about Google as a content provider supporting itself with advertising "much like newspapers, free TV or free radio" in Professor Bork's words,[26] is to miss the radical shift in a company selling advertisers access not to a particular media product[27] (which might broadly be read by certain larger demographic groups) but to each individual user based on their particular interests,

---

[25] Economist E. Glen Weyl observes that too many analysts of two-sided platforms ignore the fact that in many cases – advertising-supported platforms being a prime example – consumers are indifferent to or even hostile to the commercial side of the market. His more sophisticated economic models show that accounting for this results in far different models of consumer welfare. See E. Glen Weyl, *A Price Theory of Multi-Sided Platforms,* 100 AMERICAN ECONOMIC REVIEW 1642-1672, 1643 (September 2010).

[26] Bork, Apr. 2012, *Id*.

[27] Note that unlike traditional media firms selling advertising to a product they produce, search users make searches not to gain access to products Google generally contracts to license or produce but instead to products produced freely by others, highlighting the idiosyncrasy of search where there is not a market exchange for Google with users or with those producing what is searched for.

demographic characteristics, location and the range of other information Google is able to identify about those advertising targets.

In fact, products like Gmail or Google Search or Google Plus -- Google's social networking answer to Facebook – are more than content systems in which to deliver advertising; they are tools to extract ever more precise information about those users to allow advertisers to more effectively target particular ads to those users.[28] Most legal commentators on Google ignore the connection between its core search advertising business and its sprawling expansion across almost every imaginable space where users operate online (and increasingly offline), from watching videos to emailing friends to buying products to using their cell phones to updating their calendars, which all allow Google to develop an integrated profile of more individuals with greater breadth and depth across the nation and the world than any potential rival.[29]

Given how valuable such profiling is to advertisers, such entrenched knowledge of consumer personal information by Google makes the ability of any rival or potential rival to woo online advertisers away from Google often nearly impossible and creates an anticompetitive barrier to entry. Add to this the fact that Google acts as an advertising agency delivering ads not only on its own sites but also to a wide range of affiliates and other content providers. For advertisers seeking the product Google sells, namely ads tailored to targeted behavioral characteristics of

---

[28] Sunni Yuen, Article, *Exporting Truth With Data: Audited Self-Regulation as a Solution to Cross-Border Data Transfer Protection Concerns in the Offshore Outsourcing Industry*, 9 COLUM. SCI. & TECH. L. REV. 41, 44 (2008) (Google collects information such as user "search queries...e-mail correspondence, calendar data, credit card information, contacts, social networks, documents" and more.)

[29] From the perspective of control of private data, Google's real competitive rivals are data services like Axciom, although such companies lack Google's access to users at the point of search decisions. See Natasha Singer, *You for Sale: Mapping, and Sharing, the Consumer Genome*, NEW YORK TIMES, June 16, 2012, http://nyti.ms/LcBw0g.

online users, there is, as this article will outline, no economically viable competition to Google that has the same one-stop reach.

E. The Antitrust Case Against Google

As the rest of this article will outline, Google's dominance of search advertising along with its control of user data through its broader network of online products, mobile operating system and other services clearly meets the standard for antitrust prosecution under current law. In doing so, it will highlight the ways the control of user data adds a new element to antitrust analysis that will have increasing impact in a range of economic sectors where behavioral targeting and data mining are becoming critical factors in economic competition and in shaping economic inequality in the broader economy.

The importance of the debate over Google is reflected in the virtual army of former Department of Justice and Federal Trade Commission lawyers,[30] as well as academic[31] and think tank scholars[32], that have sprung to the defense of the company. They have vigorously tried to make

---

[30] See citations supporting Google in this piece from David Balto, Stephen D. Houck, former DOJ and FTC antitrust attorney; Steven Houck, former chief of New York State Antitrust Bureau (1995-1999) and lead trial counsel for 20 states against Microsoft; Jim Miller, Former Chairman, Federal Trade Commission; Dan Oliver, Former Chairman , Federal Trade Commission.

[31] See citations supporting Google in this piece from Daniel Crane, Professor, University of Michigan Law School; Joshua D. Wright, Professor of Law, George Mason University School of Law; Eugene Volokh, Gary T. Schwartz Professor of Law, University of California, Los Angeles.

[32] See citations supporting Google in this piece from Thomas Lenard, President and Senior Fellow, Technology Policy Institute; Paul H. Rubin, Senior Fellow, Technology Policy Institute, Geoffrey Manne, Executive Director, International Center for Law & Economics; Berin Szoka, Senior Fellow and Director, Center for Internet Freedom at the Progress; Adam Thierer, Senior Research Fellow, Mercatus Center, George Mason University, Marvin Ammori, Legal Fellow New America Foundation.

the case that Google is not a monopoly or an anti-competitive threat and that no legal case is sustainable under antitrust doctrine in the United States. [33]

Broadly, any antitrust case must show that a firm not only has a monopoly but also *is not vulnerable to new competition*[34], *maintains or expanded that monopoly by illegitimate means*[35], and that monopoly *inflicts harm to consumer welfare*[36]. The defenders of Google have sought to argue that Google does not meet these standards, but have done so largely by misreading the market Google actually dominates and by ignoring the issue of Google's control of user data in their analysis.

In relation to ***Google's dominance of its market,*** defenders of Google tend to repeatedly emphasize that Google has "only" a 65-percent share of U.S. search queries,[37] which they argue leaves the company vulnerable to search engine competitors like Microsoft's Bing, since users

---

[33] See in particular Geoffrey Manne and Joshua Wright, *Google and the Limits Of Antitrust: The Case Against the Case Against Google,* 34 HARV. J.L. & PUB. POL'Y 171, 181 (Winter, 2011) and Bork & Sidak supra note 22.

[34] See for example *Rebel Oil v. Atlantic Richfield Company*, 51 F.3d 1421 (to find an antitrust violation, "entry barriers must be significant – they must be capable of constraining the normal operation of the market to the extent that the problem is unlikely to be self-correcting.").

[35] See *United States v. Grinnell Corp* , 384 U.S. at 571 (1965); **(**A firm violates § 2 only when it acquires or maintains, or attempts to acquire or maintain, a monopoly by engaging in exclusionary conduct "as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident." **]** *see also United States v. Aluminum Co. of Am.*, 148 F.2d 416, 430 (2d Cir. 1945) .

[36] Reiter v. Sonotone Corp., 442 U.S. 330, 343 (1979) ("Congress designed the Sherman Act as a 'consumer welfare prescription.'") See as well, *United States v. Microsoft Corp.,* 253 F.3d 34, 58 (D.C. Cir. 2001) ("[T]o be condemned as exclusionary, a monopolist's act must . . . harm the competitive process and thereby harm consumers. In contrast, harm to one or more competitors will not suffice.")

[37] Thomas M. Lenard, *Perspective: Google Suit Fails To Expose Monopolistic Practices,* INVESTOR'S BUSINESS DAILY, March 27, 2012, http://bit.ly/GTqLLD (Comparing case against Google to Microsoft case, "Microsoft was a monopoly, with a 95-percent share of the market for desktop operating systems and no serious threat of new entry."); Balto supra note 20 ("Google neither dominates search to the same degree [as Microsoft did OSs] nor does the nature of search lead to a substantial consumer base that could constitute a barrier to entry.')

can switch at a click of a button.[38] However, part II of this article will lay out the evidence that Google's overwhelming dominance of the online search advertising market, in fact, is not vulnerable to new competition. The mistake of many Google defenders is their focus on search engine users, when the relevant market is search advertising, where Google has not the 65% share of search often cited but 78% of U.S. search advertising revenue (and 85% of global search revenue).

Even the more comprehensive Google defenders such as Robert Bork and J. Gregory Sidak (hereafter Bork & Sidak)[39] and Geoffrey Manne and Joshua Wright (hereafter Manne & Wright)[40], who do analyze the advertising market, downplay the multiple barriers to entry in that market and the way Google's premium returns on advertising rates, the interaction of multiple network effects[41] and high fixed costs of entry leave existing competition like Microsoft economically non-viable and make it unlikely that any new competition will challenge Google's dominance. What is largely missed in these analyses is the way Google's ever expanding control of user personal data and its critical value to online advertisers creates an insurmountable barrier to entry for new competition.

---

[38] Supra note 2.
[39] Bork and Sidak supra note 22.
[40] Supra note 33.
[41] "In markets characterized by network effects, one product or standard tends towards dominance, because 'the utility that a user derives from consumption of the good increases with the number of other agents consuming the good.' Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 AM. ECON. REV. 424, 424 (1985), cited in *United States v. Microsoft Corp*., 253 F.3d 34, 50 (D.C. Cir 2011).

While a ***monopoly is illegal only if illegitimately obtained or expanded,***[42] Google's defenders seek to argue Google's dominance has been achieved solely by innovation (so the courts should treat any monopoly profits as the fruit of success),[43] but they ignore the broader Google business model of aggressively and occasionally illegally expanding into new product markets to better cement its control of user data.

In its defenders arguments, the company obviously earned its dominance by dint of its innovative brilliance: "It doesn't take a rocket scientist -- or an antitrust lawyer -- to recognize that Google's remarkable success is due to its innovative products," writes Steven Houck, former chief of the New York State Antitrust Bureau.[44] They believe that there is no comparable evidence to the case of Microsoft, which threatened "PC manufacturers with the loss of their Windows license—without which they couldn't sell PCs—if they preinstalled or promoted the Netscape browser.

---

[42] Manne and Wright, supra note 33 ("Offense of monopolization requires demonstration of both '(1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.'" *citing to* Grinnell 384 U.S. at 570-571). See also Marvin Ammori and Luke Pelican, *Proposed Remedies For Search Bias: "Search Neutrality" and Other Proposals in the Google Inquiry*, May 14, 2012 (to be Published in the JOURNAL OF INTERNET LAW) at 5, http://bit.ly/KsNL9o ("questions are whether the company has monopoly power and, if so, whether it has abused that monopoly power to exclude rivals on a basis other than efficiency or innovation.").

[43] Monopoly profits "attracts 'business acumen' in the first place; it induces risk taking that produces innovation and economic growth. To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive conduct." *Verizon Communs., Inc. v. Law Offices of Curtis V. Trinko*, LLP, 540 U.S. 398, 407 (2004). Manne and Wright argue that this means they may charge "whatever price the market will bear." (Citing to *Trinko and Linkline*, 129 S. Ct. at 1118; *NYNEX*, 525 U.S. at 136-37.) But see my comments on the weakness of applying *Trinko* to Google in supra note 287.

[44] Houck, Oct. 7, Id. See also Thomas M. Lenard and Paul H. Rubin, *The Federal Trade Commission Penalizes Google For Being Successful,* FORBES, January 28, 2011, http://onforb.es/jlUMmg ("Google's market position was earned precisely because it found a way of ranking search results that is more useful for consumers, and it will quickly lose that position if someone can find an even better ranking algorithm.")

Through such acts, Microsoft succeeded in removing Netscape as a viable competitor."[45] Those defenders argue that Google has lived up to its "Don't Be Evil" motto[46] in doing nothing to extend its dominance by illegitimate means; "there are no 'bad acts' to support a Section 2 claim against Google," argues former DOJ and FTC attorney David Balto.[47]

However, part III of this paper will outline how Google did not just stumble across that control of user data via its early innovation in search technology and some first mover advantage, but, in fact, Google's expansion into new products and markets -- from its wireless operating system Android to YouTube video viewers to social networking -- and its tying them into its core search advertising engine has helped undermine potential rivals and entrenched its advantage in online advertising. As well, the growing line of government fines and consent decrees generated by its illegal violations of user privacy and other aggressive corporate behavior – "bad acts" – highlight arguments for subjecting the company to antitrust action.

An antitrust case must show harm to consumers, not just harm to competitors,[48] and Google's defenders deny consumers lose anything from their interaction with Google. "It's…impossible to find any way in which consumer welfare is currently being harmed by Google," writes George

---

[45] Lenard, *Id*. In *United States v. Microsoft Corp.,* 253 F.3d 34, 58-59 (D.C. Cir. 2001) (en banc), the Appeals Court agreed, ""[T]o be condemned as exclusionary, a monopolist's act must have an 'anticompetitive effect.' That is, it must harm the competitive *process* and thereby harm consumers."

[46] Google, *Code of Conduct*, http://investor.google.com/corporate/code-of-conduct.html

[47] Balto supra note 20.

[48] *Brown Shoe Co. v. United States*, 370 U.S. 294, 344 (1962) ("It is competition, not competitors, which the [Sherman] Act protects); *Brook Group Ltd. v. Brown & Williamson Tobacco Corp.,* 509 U.S. 209, 224 (1993) ("It is axiomatic that the antitrust laws were passed for 'the protection of competition, not competitors.'"); Reiter v. Sonotone Corp., 442 U.S. 330, 343 (1979) ("Congress designed the Sherman Act as a 'consumer welfare prescription.'") See as well, *United States v. Microsoft Corp.,* 253 F.3d 34, 58 (D.C. Cir. 2001) (per curiam) ("[T]o be condemned as exclusionary, a monopolist's act must . . . harm the competitive process and thereby harm consumers. In contrast, harm to one or more competitors will not suffice.")

Mason's Adam Thierer, "All their products are free and constantly evolving."[49] Or as David Balto elegantly puts it, "Consumers' pocketbooks do not see Google as any type of monopolist."[50] Complaints about Google are largely dismissed as the whining of competitors, who might gain at the expense of Google but not to the benefit of consumers, according to these Google defenders.[51]

Conversely, Part IV of the article will detail how understanding the dynamics of data mining and behavioral targeting reveal the clear harm to consumers from Google monopoly of the online search advertising market. The most obvious harm is the undermining of competition in the online advertising market, where higher prices charged to advertisers inevitably gets passed onto consumers in the form of higher prices for the advertised goods and services they buy. But a deeper harm is the stunted "market" for user data itself, where lack of vigorous competition means users too readily share that data at too low a price -- usually for free in exchange for software services that cost companies like Google far less than the value of the user data they collect.[52]

---

[49] Adam Thierer, *Can there be a market for unpaid search results and could Google be classified as a public utility?* ANTITRUST & COMPETITION POLICY BLOG, May 21, 2012, http://bit.ly/K4Ta5l. See also Jim Miller & Dan Oliver, *An Antitrust Probe of Google?* NATIONAL REVIEW, December 20, 2011, http://bit.ly/vt2Sh3 ("consumers are reaping enormous benefits from the free service designed to reflect their choices.")

[50] Balto supra note 20.

[51] See Geoffrey Manne and Berin Szoka, *Some Much-Needed Antitrust Skepticism on Senate Letter Urging FTC Google Investigation*, TRUTH ON THE MARKET/ TECHFREEDOM,; December 20, 2011 ("harm to competitors is not the same thing as harm to consumers or competition more."); Ammori and Pelican, *Id*. at 9 (a "remedy should focus on preserving competition, not protecting individual competitors." Citing to U.S. Dept. of Justice, ANTITRUST DIVISION POLICY GUIDE TO MERGER REMEDIES 2, (2011).)

[52] How much competition might enhance user privacy is discussed in the remedies part of Section 5 of this article.

More deeply, Google helps facilitate advertisers engaging in user profiling that aids those companies in extracting the maximum profit possible from consumers in the overall economy. Advertisers can deliver ads not just to the users most likely to be interested in the product but can tailor prices for individual consumers in ways that can maximize the revenue extracted from each purchaser. A story in 2012 about the travel site Orbitz steering Mac owners to higher-priced hotels and PC owners to lower-priced ones is a basic example of such a strategy,[53] although the practice encompasses everything from offering promotional discounts only to selected customers to targeting subprime mortgage offers online at likely victims – which advertised heavily on Google during the company's economic rise. There is also strong evidence, including massive financial sanctions for Google, that this targeting of ads empowers criminal and "tawdry" (in Internet analyst Jaron Lanier's words) companies to exploit users online. At its worst, this data mining-supported targeting of consumers may be empowering racial profiling in new and disturbing ways as well.

F. Remedies and the Argument for Aggressive and Earlier Regulatory Intervention

One large implication of this analysis is that public policy better protecting personal privacy is not just a civil liberties issue but may be a core issue for reducing monopoly power of players like Google and encouraging a fairer economic return to individuals when they do choose to share that data with commercial entities. Effective antitrust remedies, as outlined in Section V of this article, may be not just about forcing the sell-off of assets and segments of the market (although that may be helpful) but shifting control of data as well, both through more effective

---

[53] Dana Matiolli, *On Orbitz, Mac Users Steered to Pricier Hotels*, WALL STREET JOURNAL, June 26, 2012, http://on.wsj.com/LwTnPH.

privacy laws but also through requiring greater data portability between products and promoting greater common carrier responsibilities by dominant companies to avoid violating user privacy.

Highlighting the challenges to the Chicago School approach to antitrust from this analysis, Part V of the article will emphasize that far from the danger being too aggressive or early intervention in high technology markets, the case of Google illustrates precisely why far earlier action and more systematic regulation in new online markets are necessary to prevent exactly the kind of entrenched control Google was able to establish while regulators lay passive.

Google's defenders tend to emphasize fear of regulatory error[54] and that technology markets are supposedly too complicated for slow-moving regulators to be effective. Antitrust enforcement errors that incorrectly intervene to stop monopoly supposedly have higher social costs, they argue, than the failure to intervene where a monopoly may exist "because market forces offer at least some correction."[55] The stakes are supposedly even higher in fast-moving technology markets[56] where the wrong interventions will undermine innovation and economic growth.[57]

---

[54] Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 15 (1984) ("[T]he economic system corrects monopoly more readily than it corrects judicial [Type I] errors.")

[55] Manne & Wright at 178-179; citing to *Trinko*, 540 U.S. at 414 ("The cost of false positives counsels against an undue expansion of § 2 liability."); *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 456, 458 (1993) ("[T]his Court and other courts have been careful to avoid constructions of § 2 which might chill competition, rather than foster it."); *Matsushita Elec. Indus. Co. v. Zenith Radio Corp*., 475 U.S. 574, 594 (1986) (stating that mistaken inferences in predatory-pricing cases "are especially costly because they chill the very conduct the antitrust laws are designed to protect"); "); *Copperweld Corp. v. Independence Tube Corp.,* 467 U.S. 752, 767-68 (1984) (scrutiny is appropriate only when ta firm pose a danger of monopolization in order to reduce "the risk that the antitrust laws will dampen the competitive zeal of a single aggressive [competitor]").

[56] Thierer *supra note* 49 ("a market that changes this rapidly…mean that most rules will be completely out of date by the time they are implemented.")

[57] Bork and Sidak *supra note* 22 at 3 (antitrust intervention would harm the cycle where "innovation drives competition, which further drives consumer-welfare-enhancing innovation.") Manne & Wright at 185-186 ("the well-established empirical link between innovation and economic growth tells us that the

However, what is ignored in such an analysis is that removing incumbents in technology markets is often more complicated than in traditional industries, as shown by the challenges of applying effective remedies to such an deep-rooted players. Because monopoly power is often strengthened in the early stages of the formation of technology markets when a free product is offered to consumers -- which in turn entrenches a company's data collection efforts -- early intervention by regulators is better than trying to dethrone an embedded incumbent like Google. And the broad distortions of the markets for and use of personal data by dominant online players like Google means that markets are unlikely to correct such problems, meaning that the danger of non-intervention by regulators is far higher in high-technology markets than Chicago-school antitrust critics theorize.

These fundamental problems in the functioning of markets for personal data and the rising asymmetry of information between advertisers and consumers may be feeding growing economic inequality. The case of Google may serve as one more example, like the subprime mortgage industry that Google so financially benefitted from, of the fundamental failure of unregulated markets to protect consumer welfare in the modern era.

---

stakes of error are much higher" in technology markets.); see also Robert W. Crandall & Clifford Winston, *Does Antitrust Policy Improve Consumer Welfare? Assessing the Evidence* 17 J. ECON. PERSP. 3 (2003) (copy at http://bit.ly/MxuWzM); Daniel F. Spulber, *Unlocking Technology: Antitrust and Innovation*, 4 J. COMP. L. & ECON. 915 (2008); J. Gregory Sidak & David J. Teece, *Dynamic Competition in Antitrust Law*, 5 J. COMPETITION L. & ECON. 581 (2009).

II. How Google Dominates the Search Advertising Market

There are over a billion people using Google products: search engines, YouTube, Google Maps, Android phones, Google Docs and so on.[58]

They aren't Google's customers.

While users may enjoy using them, those products are essentially bait to get those users to share their private information with Google in order to sell those users' eyeballs to Google's advertisers. Improving the quality of those user products is much like the massage administered to Kobe beef cattle in Japan; it improves the product delivered up to the real customers, Google's advertisers, who benefit from more targeted information about those users.

User data flows into Google's main product, its advertising platform AdWords. Google's market is its search advertising platform, not its "search engine" or "mapping software" or "online video" or "mobile operating system" or any particular user product. Those who measure its dominance by its percentage of non-paying users in any particular product[59] are just misanalysing Google's revenue model and the dynamics of the online marketplace. In fact, by making these products free on the Internet, part of Google's model is to largely destroy alternative revenue models and potential competitors within those ostensible product categories

---

[58] Globally, Google claims that 350 million people now use web-based email app Gmail, 200 million use its Chrome web browser, 800 million use YouTube each month, 100 million are registered Google Plus users. *Google by numbers: 100 million active Google+ users, 350 chrome users, 800 million YouTube users,* YAHOO NEWS, Apr 6, 2012, http://yhoo.it/I704ae. And in the United States, it has 153 million users of its search engine each month. *Google beats Facebook and Yahoo to be crowned most visited site of 2011*, METRO, Dec 30, 2011, http://bit.ly/Np0er4

[59] See Part I, supra notes ___

in favor of strengthening its own dominance of selling access to those users to search advertisers, a point to which we will return in section III.

The key fact from an antitrust viewpoint is that not only does Google have essentially monopoly dominance of search advertising, there is little prospect that any potential competitor can create an economically viable challenge to that dominance.

A. Measuring Google's Dominance

Broadly, Google reported annual revenue of $50 billion in 2012—a 32% increase from a year earlier -- with annualized profits of over $14 billion per year.[60] Putting aside recently acquired Motorola, 97 percent of that revenue is estimated to come from its online advertising business—and the overwhelming portion of that amount from its core search-advertising product.[61] With search advertising alone, Google is estimated to have increased its global share of sector revenue from 72% in 2006 to over 85% in 2012 (and 78% of the U.S. market alone).[62] In mobile phone advertising, the fastest growing online advertising sector, Google has established a phenomenal 97 percent of paid mobile search advertising, which was projected to be worth $1.1 billion by the

---

[60] Casey Newton, *Google revenue hits $14.42B in fourth quarter, up 36 percent,* CNET NEWS, Jan. 22, 2013. Profits based on projecting fourth quarter 2012 net income, excluding restructuring charges and losses from discontinued operations.
http://cnet.co/141OupT

[61] Robin Wauters, *Google ad clicks outnumber 'normal' search results by 2:1 for some commercial keywords: study*, THENEXTWEB, July 17, 2012, http://tnw.co/NtxjGv.

[62] ZenithOptimedia, *Quadrennial events to help ad market grow in 2012 despite economic troubles*, Dec. 5, 2011, http://zenithoptimedia.blogspot.com/2011/12/quadrennial-events-to-help-ad-market.html. See also RKG, *RKG Digital Marketing Report: Q1.2012*, April 11, 2012; http://www.rimmkaufman.com/thought-leadership/quarterly-reports/q1-2012/; Michael Liedtke, *Microsoft takes $6.2B hit to account for ad woes*, ASSOCIATED PRESS, Jul 2, 2012, http://bit.ly/N5DCLB ("Google… should take 76 percent of the U.S. market this year, up from 74 percent in 2010 and 70 percent in 2009.")

end of 2011 and is likely to skyrocket as a percentage of advertising.[63] And search and search advertising's importance is increasing largely unabated, despite some claims that the rise of apps or other non-browser tools would supplant it.[64]

Under the traditional HHI measure of industry concentration,[65] economist David Evans calculates that "[search] is highly concentrated with an HHI of over 3,000 based on search traffic and higher based on advertising revenue."[66]

When you turn from revenue to profits in the search advertising industry, Google's dominance becomes even more overwhelming. Google is essentially the only company making any profits in the sector. Yahoo, once one of the main competitors to Google, has largely abandoned search in favor of an alliance where Microsoft's Bing search engine now powers most search in Yahoo properties—and its payments from Microsoft equaled its costs in 2011.[67] With Microsoft's Bing search engine essentially the only viable alternative to Google in the search-advertising sector, what is remarkable is that Bing's search advertising platform is losing something on the order of $2.6 billion per year for Microsoft.[68] That even this competition for Google exists only because

---

[63] Greg Sterling, *Google Controls 97 Percent Of Mobile Paid Search: Report,* SEARCHENGINELAND, Mar 7, 2011, http://searchengineland.com/google-controls-97-percent-of-mobile-paid-search-report-66876
[64] SEARCH ENGINE USE 2012, Pew Internet and American Life Report, Mar. 9, 2012, http://bit.ly/w3M2mX (91% of online adults use search engines to find information, up from 84% in 2004)
[65] See Federal Trade Commission, 1992 Horizontal Merger Guidelines[with April 8, 1997, Revisions to Section 4 on Efficiencies], http://www.ftc.gov/bc/docs/horizmer.shtm.
[66] David Evans, *The Economics of the Online Advertising Industry*, REVIEW OF NETWORK ECONOMICS, Vol. 7, No. 3, September 2008 at 14.
[67] *Yahoo! Reports Fourth Quarter and Full Year 2011 Results,* Business Wire, January 24, 2012; http://www.businesswire.com/news/home/20120124006664/en/Yahoo!-Reports-Fourth-Quarter-Full-Year-2011
[68] Robert Cyran, *Microsoft ought to kick off search for Bing buyer,* Reuters, July 22, 2011; http://blogs.reuters.com/breakingviews/2011/07/22/microsoft-ought-to-kick-off-search-for-bing-buyer/;

of massive profit-losing subsidies just emphasizes how weak competition is in search advertising.

In any other industry, a competitor with the deep pockets of Microsoft — and a track record of pretty vicious competitive actions itself — would be seen as a threat but instead is almost not viable economically. Notably, in Europe, where Microsoft has invested far less in competing with Google, Google has even larger shares of search users (and consequently advertising revenue) — 92% in the United Kingdom, 91% in France, 93% in Spain, Germany and Switzerland, 94% in Portugal, 95% in the Netherlands, Poland and Romania and 96% in Belgium and Hungary.[69]

B. How the Search Advertising Market Works

In search advertising, the core product sold is the little text advertisements that appear next to search page results, on Gmail pages and on a range of other Google and affiliated sites across the Internet. Particular ads are tied to particular words users type into search engines or based on words on a particular webpage where the advertisement appears. Pertinent to this article's analysis, the ads listed for a particular user can also be tied to analysis by the search advertising platform of the content of emails by a user previously sent to friends and colleagues, videos previously viewed, a user's previous online searches, the user's location and other interests,

---

see also Microsoft's writing off $6.2 billion against its online services division, including Bing, largely because of the failure of an earlier purchase of online advertising firm, aQuantive, which failed to expand the company's online advertising business. Matthew Zeitlin, *Microsoft's $6.2 Billion Writedown Shows It's Losing War With Google*, THE DAILY BEAST, July 4, 2012, http://www.thedailybeast.com/articles/2012/07/04/microsoft-s-6-2-billion-writedown-shows-it-s-losing-war-with-google.html

[69] *Here's How Google is Taking Over Europe*, YAHOO! FINANCE, July 14, 2011, http://yhoo.it/mSiKqN.

demographic information, and behavioral characteristics that the advertising platform knows about the user.[70] Essentially the more an advertising platform knows about users, the more specific a slice of the online population the platform can deliver to the advertiser, with advertisers then able to deliver different ads, including different promotions and prices, to different populations as they desire.

Advertisers bid in an auction on those keywords for each and any of the desired behavioral and demographic sub-groups that the advertisers which to target. A combination of the highest bid price and the quality of the advertiser's site[71] determines which ad gets most prominent placement next to the normal search results on Google's page. An innovation in search advertising is that advertisers don't pay a dime for the ads being listed, but only pay a search engine the price bid in the auction when a user actually clicks on the ad. This so-called Cost Per Click (CPC) price for a user to click to an advertiser's site is ultimately the core product being sold.

One result of this ability to target ads so precisely is that search advertising ends up serving a distinctly different purpose for companies compared to either online display advertising, such as the graphic banner ads on websites, or traditional print and television advertising. One survey found that most advertisers (76%) use search advertising to generate sales or leads, with only 5% mentioning building brand awareness as an important goal, while 51% of social media

---

[70] For more on specific ways advertisers can target ads based on users behavior, see these Google Help pages, *Where ads appear on the Display Network depending on your targeting methods; http://bit.ly/NgICUF* and *Reaching Your Audience*, http://bit.ly/12liG0a

[71] The quality of the advertising site means whether users find the link useful and are likely to click on it, since Google wants to maximize not just the bid price but its total revenue, including the total number of clicks times that bid price.

advertisers on sites like Facebook or other forms of display ads rank brand awareness as their most important goal.[72]

C. Why Search Advertising is the Relevant Market for Antitrust Analysis

Given the radically different pricing structure and different stated purpose for search advertising compared to either online display ads or traditional advertising, it is not surprising that the Federal Trade Commission and Department of Justice have repeatedly ruled that search advertising is a distinct market for antitrust analysis.[73] Other countries' antitrust authorities have also repeatedly found that search advertising is a distinct market from online display and traditional advertising sectors for analyzing antitrust issues.[74]

Opponents of antitrust action against Google have tried to downplay Google's dominance of search advertising by arguing that traditional advertising is a substitute for search advertising,[75]

---

[72] SEMPO, *State of Search Engine Marketing Report 2010,* April 2010, http://bit.ly/w0f8JR

[73] *Statement of Federal Trade Commission Concerning Google/DoubleClick,* FTC File No. 071-0170, http://1.usa.gov/RGkEVe (FTC approved Google's acquisition of the online display advertising company DoubleClick- "advertising space sold by search engines is not a substitute for space sold directly or indirectly by publishers [of display advertising] or vice versa."); *News Release: Yahoo! Inc. and Google Inc. Abandon Their Advertising Agreement: Resolves Justice Department's Antitrust Concerns, Competition Is Preserved in Markets for Internet Search Advertising,* U.S. Department of Justice, November 5, 2008, http://1.usa.gov/eILMV6 (barring Google from coordinate its search advertising with Yahoo!); *Statement of the Department of Justice Antitrust Division on Its Decision to Close Its Investigation of the Internet Search and Paid Search Advertising Agreement Between Microsoft Corporation and Yahoo! Inc.,* U.S. DOJ, Feb. 8, 2010, http://1.usa.gov/bQuVAJ (approving Microsoft-Yahoo! Alliance).

[74] In Europe, see, Case IV/JV.1 . Telia/Telenor/Schibstedt, 27 May 1998, Case IV/M.1439 . Telia/Telenor, 3 October 1999 and Case IV/M.0048 . Vodafone/Vivendi/Canal Plus, 20 July 2000; COMP/M.4731 Google/DoubleClick, 11 March 2008 and COMP/ M.5727.Microsoft/Yahoo! Search business, 18 February 2010. In Australia, see Microsoft/Yahoo! Ref. 38377.

[75] Bork and Sidak supra note 22 at 222 ("all forms of advertising…are about bringing buyers and sellers together by minimizing some of the transaction costs that otherwise keep them apart."); Manne & Wright supra note 33 at 196, (doubting "propriety of a narrow market definition limited to merely online search advertising.") They cite to a couple of scattered district court decisions to support this contention,

but the Supreme Court has generally treated advertising within any specific medium as a significant market for antitrust purposes. In *Times-Picayune Pub. Co. v. United States,*[76] the Supreme Court distinguished newspaper advertising from "advertising placed through other communication media" based on "trade's own characterization of the products involved" and the way the advertising industry differentiates "between advertising in newspapers and in other mass media."[77] There is little question that the advertising industry clearly distinguishes between search advertising and every other kind of advertising.[78]

As importantly, because search advertising is tied to the provision by companies of search and related user products, any competition analysis, in economist David Evans words, "will need to consider the free product together with its companion moneymaking product."[79] Precisely because competition (or lack thereof) may effect not just advertising clients but users of complementary products like search, such an integrated analysis – and sector analysis focused on linked markets like search advertising and search – is required to ensure that antitrust authorities evaluate "the welfare of all of the consumers that are directly affected by a business practice or

---

including KinderStart.com LLC v. Google, Inc., No. C06-2057JF(RS), 2007 WL 831806 at *6 (N.D. Cal. Mar. 16, 2007) (noting that "there is no logical basis for distinguishing the Search Ad Market from the larger market for Internet advertising"); Person v. Google Inc., 456 F. Supp. 2d. 488 (S.D.N.Y. 2006).KinderStart.com LLC v. Google, Inc., No. C06-2057JF(RS), 2007 WL 831806 at *6 (N.D. Cal. Mar. 16, 2007) (noting that "there is no logical basis for distinguishing the Search Ad Market from the larger market for Internet advertising").and Person v. Google Inc., 456 F. Supp. 2d. 488 (S.D.N.Y. 2006).

[76] 345 U.S. 594, 610-614

[77] *Id.*

[78] See for example, *IAB Internet Advertising Revenue Report: An Industry Survey Conducted by PwC and Sponsored by the Interactive Advertising Bureau (IAB),* April 2012; http://bit.ly/HNQCE3

[79] David Evans, *The Antitrust Economics of Free,* Competition Policy International White Paper, Spring 2011 at 2; http://ssrn.com/abstract=1813193; cites to See Eastman Kodak Co. V. Image Tech. Svcs., 504 U.S. 451 (1992).

its prohibition."[80] He cites specifically how the lack of competition in search advertising could potentially change the "incentives regarding how much privacy protections to give to consumers"[81] as a reason for maintaining specific market definitions in the online marketplace.[82]

D. Google's Premium Price for Its Search Advertising

Within search advertising, then, the interesting question, though, is why isn't Microsoft (or any alternative competitor) making significant profits from search advertising? Microsoft may have less than half the search users – when you add in its alliance with Yahoo – in the United States compared to Google, but Google makes mammoth amounts of money and generating advertising for even half of Google's users could still be extremely profitable. The answer to why no one other than Google is making profits in the sector is a further clue to the monopoly power by Google.[83]

The key is the price of the clicks on online ads, the so-called Cost-Per-Click (CPC) for any keyword auction, which is the core product in the sector. While a dominant player like Google is inevitably going to deliver more clicks on any keyword based on having more users, all things being equal, the CPC price should be roughly the same since a user ultimately clicking through to an advertisers page should in theory be just as valuable if the customer reaches the page via Google as via AOL or via Bing.

---

[80] Evans *Id.* at 21-24.
[81] *Id.* at 13
[82] Although even in overall online advertising, Google had a massive 44.1% share of total 2011 global Internet advertising— up from 34.9% in 2006. And Internet advertising is the fastest growing advertising sector, within the United States, larger than advertising in the cable, newspaper and radio industries and gaining rapidly on total advertising revenue in broadcast television. See supra note 78
[83] E. Glen Weyl's in his models of two-sided markets argues that high profits derived from two-sided market interactions is a strong indicator of monopoly predation. Weyl supra note 25 at 1666.

However, even in the United States where Bing has a significant minority share of searches – especially when including its alliance with Yahoo! – Google receives an extremely high premium cost per click (CPC). One advertising analyst estimated that for the same keywords, the "average CPC on Bing is somewhere around 1/4 or 1/5 of our average CPC on Google."[84] Another found that on specific search terms, CPC rates on Bing were slightly higher but still were discounted 49% to 71% compared to Google, while others estimate that the CPC rate is 20% to 40% lower on Bing.[85] This premium for Google apparently extends back years to when Yahoo! was Google's main competitor—and Google then had a CPC premium of nearly three times the Yahoo! CPC rate, a key reason Yahoo! was forced out of the online search market.[86]

What this means is that even if an advertiser pays for a search term on both Google and Bing, Bing would end up generating only one-fourth to as low as one-tenth of the revenue Google received from the same advertiser's campaign using the exact same keywords on each site. Which explains at least part of the reason why Bing may have nearly half the U.S. users of Google, but generates less than twenty percent of sector revenue.[87] (And note that part of that revenue coming from Yahoo! sites where part of that revenue has to be shared, further decreasing revenue.)

---

[84] Natalia Klishina, *PPC Search: Google AdWords vs. Microsoft AdCenter (Bing)*, CallFire, January 7th, 2011, http://www.callfire.com/blog/2011/01/07/ppc-search-google-adwords-vs-microsoft-adcenter-bing/
[85] Donald Nosek, *A Closer Look at the New and Improved Bing Webmaster Tools*, Y DIGITAL MARKETING BLOG, July 12, 2011, http://www.ymarketing.com/blog/?Tag=bing;
[86] David Evans, *The Economics of the Online Advertising Industry*, REVIEW OF NETWORK ECONOMICS, Vol. 7, No. 3, September 2008 at 16; see also Henry Blodget, *The Real Reason Yahoo's Revenue Per Search Stinks*, SILICON ALLEY INSIDER, Oct 2, 2007, http://bit.ly/TCTRWJ
[87] RKG Id. Estimate generated from graphs on p. 7.

E. Lower CPC Rates for Competitors Mean High Fixed Costs Create Monopoly Barrier to Entry

That this lower revenue has to cover much of the same fixed costs as Google for maintaining a competitive search advertising platform illustrates the major barrier to entry for existing or potential challengers to Google that make it's monopoly unlikely to lessen based only on market forces. [88]

Online search engines and related enterprises require incredibly large fixed investments, what Siva Vaidhyanathan describes as a "monumental collection of physical sites such as research labs, server farms, data networks and sales offices."[89] Google is estimated to have somewhere on the order of one million computer servers[90] (with other estimates placing that number as high as 1.8 million servers in Jan. 2012[91]) deployed to crawl the web and store the data needed to run its services. While this estimate covers all of Google's operations, any competitor would have to invest in a significant percentage of those resources to be competitive, plus the staff to program and maintain its sites.

---

[88] Oren Bracha & Frank Pasquale have also emphasized these fixed costs as a barrier to entry. See *Federal Search Commission? Access, Fairness and Accountability in the Law of Search*, 93 CORNELL L. REV. 1149, 1180-1181 (2008) ("It is unclear whether search engines fall under the strict definition of a natural monopoly, but they exhibit very similar characteristics. Search engines have very high fixed costs and a relatively low marginal cost.")

[89] Supra note 21 at 19.

[90] Rich Miller, *Report: Google Uses About 900,000 Servers,* DATA CENTER KNOWLEDGE, August 1, 2011; available at http://www.datacenterknowledge.com/archives/2011/08/01/report-google-uses-about-900000-servers/

[91] James Pearn, *How many servers does Google have?,* Pearn's Google+ page; available at https://plus.google.com/114250946512808775436/posts/VaQu9sNxJuY

The following basic equation highlights the mathematical barrier to competition in the online advertising marketplace:

$$\text{Clicks} \times \text{CPC} > \text{FixedCosts}$$

Which translates as the total number of click-throughs (Clicks) generated by an advertising platform times the average Cost Per Click (CPC) charged to those advertisers must yield revenue more than the platform's fixed costs (FixedCosts). Any challenger to Google would have to generate some combination of CPC rates times total clicks by users to generate revenue to cover those fixed costs to even begin to be a competitive challenge to Google – and the fact that Microsoft with nearly half the user base of Google still generated $2.6 billion in losses compared to its costs shows how high that competitive barrier is.[92]

If the only alternative is for a competitor to almost magically compete with vastly lower fixed costs, then the standard Chicago School model of refusing to recognize monopoly as long as a deep-pocketed challenger could enter the marketplace is irrelevant, since higher spending (more fixed costs spent on the platform) isn't an economically viable strategy for entry into such a market if they can't also meet Google's CPC rate. Which all basically explains why Microsoft has largely been a money-losing, economic also-ran in the online advertising race.

---

[92] With little evidence, Google defenders like Bork & Sidak argue the "necessary scale to compete in search is small—it is certainly smaller than Google's scale." Supra note 22 at 19. However, multiple industry participants have testified to the impossibility of meeting the costs of achieving the necessary scale. see e.g., Hearing on Competition in Online Markets/Internet Search Issues: Before the Senate Judiciary Subcommittee on Antitrust, Competition Policy and Consumer Rights (Sept. 21, 2011) (written statement of Thomas O. Barnett, Covington & Burling LLP at 13); http://1.usa.gov/UfH0fg

F. Key to High CPC Rates – and Google's Dominance-- is Likely Google's Control of User Data

If its high CPC rate combined with the high fixed costs of the search advertising market is the key barrier to entry, that raises the question of whether the reasons for Google's high CPC rates are themselves monopolistic and subject to antitrust challenge.

The core source of value being delivered to advertisers by Google (or any search advertiser) is by all accounts how well it knows its users because of their vast databases of user personal data. With that knowledge, Google can deliver customers more likely to purchase an advertiser's product and, as importantly, help sell those products at the highest price the user may be willing to pay. Where collection of behavioral data has been restricted, as in parts of Europe, studies found that advertising effectiveness dropped drastically, indicating the critical importance of user data to online advertising. [93]

While there are a number of network effects that come into play with Google,[94] this is the crucially important one from the core business aspect of entrenching the company's search advertising. In *U.S. v. Microsoft*[95], the Court emphasized how such network effects reinforce a monopoly, in that case users wanting a software system with lots of companies writing software

---

[93] Avi Goldfarb, Catherine E. Tucker, *Privacy Regulation and Online Advertising*, MANAGEMENT SCIENCE, Vol. 57, No. 1 (January 2011), pp. 57-71 (study using 3.3. million survey responses to 9596 different online ads found 65% drop in ad effectiveness compared to countries without privacy regulation)
[94] Bracha & Pascquale at 1181 ("The more searches an engine gets, the better able it is to sharpen and perfect its algorithm."); James Grimmelmann, *How to Fix the Google Book Search Settlement*, J. INTERNET L., Apr. 2009, at 1, 14 (Google's monopoly "might be the inevitable result anyway; this is a market with substantial economies of scale and positive network effects."); Kristine Laudadio Devine, *Preserving Competition in Multi-Sided Innovative Markets: How Do You Solve a Problem Like Google?,* 10 N.C. J.L. & TECH. 59 (2008) (describing a wide range of Google's network effects).
[95] 253 F.3d at 55.

for it. The comparison here is to advertisers wanting an advertising system with enough users and, crucially, data about those users to better target that advertising in ways that increase the monetary returns from click-throughs of their ads.

The gain for Google from its network of users is not just data on each individual user but the cumulative data on how similar users behave which allows anticipation of their interests (and the returns on advertising) based not just on their own previous actions but on the behavior of similar users in its network. While Google no doubt got a leg-up into its dominant position through innovation in its core algorithm, even its own leaders have admitted that it's consolidated its control based on overwhelming control of data. As its Chief Scientist Peter Norvig has argued, "We don't have better algorithms than everyone else; we just have more data."[96]

Google defenders like Bork and Sidak dismiss Google's scale as a barrier to entry since other companies can just similarly invest in "learning by doing,"[97] but they completely ignore the barrier to obtaining the user data to effectively enter the market as a viable competitor. A company could buy the exact same computer servers as Google and the smartest scientists on earth, but they face the barrier of lacking the large network of users to be able to deliver the behavioral targeting of ads that advertisers want.

Manne and Wright are more willing to admit that "additional end users may increase the value of Google's (or any other search engine's) platform to its advertisers," but argue that the higher CPC

---

[96] Matt Asay, *Tim O'Reilly: 'Whole Web' is the OS of the future*, CNET.COM, March 18, 2010, https://bitly.com/shorten/. Similarly, former Google CEO Eric Schmidt has said, "Scale is the key. We just have so much scale in terms of the data we can bring to bear." *How Google Plans to Stay Ahead in Search,* BLOOMBERG BUSINESSWEEK, October 02, 2009; http://buswk.co/1arA6c

[97] See supra note 22 at 19-23 (discussing the lack of barriers to entry and ability of competitors to supposedly "learn by doing" to compete with Google)

prices charged therefore to Google advertisers just creates an opportunity for competition by lower-priced competitors.[98] But this then is just treating the problem of network effects as a completely separate issue from the competitive barrier due to fixed costs[99], when the problem of lower CPC rates (due to those network effects) with a lower user base and high fixed costs interact together to create an almost complete competitive barrier in combination, as discussed above.[100]

Reinforcing this dominance by Google via control of user data are structural issues related to the search advertising marketplace. One key issue that has received specific scrutiny from antitrust regulators in both the U.S. and Europe[101] is the lack of "data portability" between Google's AdWords platform and competitors' platforms. Google has made it incredibly burdensome to transfer the data managing ad campaigns on alternative platforms, including blocking third-party software to do so, [102] thereby encouraging many advertisers, especially small ones, to just stick with Google with its far more extensive user base and thereby decrease bidding at alternative

---

[98] Manne and Wright at 209-211.
[99] Id. at 210 ("there may be supply-side economies of scope and scale, but this is neither a unique or uniquely-interesting conclusion, nor one with particularly interesting antitrust implications.")
[100] Economic E. Glen Weyl has argued that when you move away from simplistic economic models and recognize that users will have different economic value to advertisers, such heterogeneity of preferences means that two-sided markets end up with distortions of any expected equilibrium price, so market predation is far more viable for firms. Weyl supra note 25 at 1658.
[101] The EU is focused on the issue of data portability by advertisers. See Kelly Fiveash, *Brussels throws antitrust settlement lifeline to Google: Almunia urges Schmidt to offer quick fix or face possible 'abuse' charges,* THE REGISTER, May 21, 2012, http://bit.ly/OUnMYY; *Letter to Google chairman Eric Schmidt from EU Competition Commissioner Joaquin Almunia*, May 20, 2012. (objection to "contractual restrictions on software developers which prevent them from offering tools that allow the seamless transfer of search advertising campaigns across AdWords and other platforms").
[102] Google, *AdWords API: Terms and Conditions, https://developers.google.com/adwords/api/docs/terms* (accessed on May 4, 2012)

platforms.[103] Since studies also show that just having more advertisers bidding for keywords in such an auction system delivers higher CPC prices,[104] being the dominant player and discouraging advertisers from also bidding with the competition just further reinforces that dominant position. In its January 2013 settlement, the Federal Trade Commission received a promise from Google to reduce its restrictions on data portability to competitors' ad platforms.[105]

Another dynamic has been that search advertisers are not bidding on a particular product, but are engaged in bidding on where their ad will be located *relative* to location of ads by rivals selling the same product. Studies have shown that the link listed first on a search results page gain a disproportionate share of the click-throughs, so advertisers end up bidding potentially more for that relative position to avoid losing market share.[106] This makes bidding for position on a search engine more of a "winner take all" dynamic of gaining often decisive positioning on the search results pages generated for users—another encouragement to increased bidding on the most dominant platform.

---

[103] Ben Edelman, *PPC Platform Competition and Google's "May Not Copy" Restriction*, benedelman.org, June 27, 2008; http://www.benedelman.org/news/062708-1.html (Google restrictions "reinforce the tendency of small to medium-sized advertisers to 'single-home' -- to use only Google AdWords, to the exclusion of competing platforms."); Evans *supra note 66* at 20.

[104] Benjamin Edelman and Michael Schwartz, *Optimal Auction Design in a Multi-unit Environment: The Case of Sponsored Search Auctions*, WORKING PAPER Harvard Business School, Dec. 2006, http://www.benedelman.org/publications/optimalauction-120806.pdf- ("the more advertisers that bid for a particular keyword, the higher are search engine revenues for that keyword."); *see also* Joseph Farrell & Paul Klemperer, *Coordination and Lock-in: Competition with Switching Costs and Network Effects,* THE HANDBOOK OF INDUSTRIAL ORGANIZATION 2008 (M. Armstrong and R. Porter eds., 2007); Paul Klemperer, *What Really Matters in Auction Design*, 16 J. ECON. PERSP. 169, 172 (2002).

[105] *Commitments Letter From Google Inc. To Chairman Leibowitz*, Dec. 27, 2012, http://1.usa.gov/127jSEh (agreeing to end restrictions on API that prevent sharing "campaign management data between AdWords and a third party ad network.")

[106] Jaron Lanier, *The Local-Global Flip, or, "The Lanier Effect,"* EDGE, August 28, 2011; http://edge.org/conversation/the-local-global-flip (once you are a customer of Google's ad network, the moment that you stop bidding for your keyword, you're guaranteeing that your closest competitor will get it… It creates a new kind of glue")

One other factor is Google's extensive control of overall online ad infrastructure.[107] Controlling such a large portion of online advertising infrastructure just adds to the company's inside knowledge on structuring its search advertising auction system for maximum advantage. To take one major example, an overwhelming number of websites use Google's tool, Google Analytics, to analyze where and how web traffic is arriving on their site – including much of it from Google's search engine itself based on specific keywords. In 2011, Google began encrypting user search data and making it harder for sites you visit after using Google to know what terms were used to find the site– what's called referrer data. This was officially done to protect user privacy-- except Google will now share that encrypted data with any Google advertiser, turning its Google Analytics data into a tool to give companies one more incentive to be paying customers for Google's advertising services.[108]

While some these structural advantages reinforcing Google's advantages may be lessened through creative solutions by government regulators, any real solution will also require taking on the broader issue of Google's overwhelming control of user data and the ways that makes its dominance nearly unchallengeable.

G. Foreclosure Through Exclusive Deals in its Core Search Advertising Market

One basic issue of legal liability is the way Google has entrenched its core monopoly position in the search advertising market through a series of exclusive contracts that foreclosed competitors

---

[107] See Peter Kafka, *Google closing in on $400 million deal for AdMeld,* CNET NEWS, June 9, 2011; http://news.cnet.com/8301-1023_3-20070440-93/google-closing-in-on-$400-million-deal-for-admeld/
[108] Danny Sullivan, *Google Put a Price on Privacy*, SEARCH ENGINE LAND, Oct 22, 2011; http://searchengineland.com/google-puts-a-price-on-privacy-98029

from being able to challenge the company. This claim of foreclosure[109] is one of the four core antitrust claims cited by Europe's chief competition official in its antitrust complaints to Google in May 2012[110] and has been a focus of U.S. critics of Google as well.[111]

While Google was initially popular with consumers due to innovative technology, the company sealed its dominant control through exclusive contracts to be the exclusive search engine and advertiser supplier for a series of high-traffic web sites, thereby locking up access to a large number of users whose data would then feed its ongoing dominance. Its largest deal early on was with American Online but Google also signed a range of contracts with news and other sites, such as News Corporation, where it has provided search and keyword targeted advertising exclusively since 2004.[112]

Google defenders such as Manne and Wright dismiss this worry noting that such "competition for the contract" is endemic in competition throughout the economy.[113] In fact, they argue that

---

[109] "foreclosing a market can create anticompetitive effects by depriving rivals of network effects or economies of scale, scope, distribution, supply, research, or learning."(Einer Elhauge, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theorem*, 123 HARV. L. REV. 397, 413 (2009; cites to Einer Elhauge, *Defining Better Monopolization Standards*, 56 STAN. L. REV. 253, 320-24 (2003), Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs To Achieve Power over Price*, 96 YALE L.J. 209, 234-45 (1986); Eric B. Rasmusen, J. Mark Ramseyer & John S. Wiley, Jr., *Naked Exclusion*, 81 AM. ECON. REV. 1137 (1991); Steven C. Salop & David T. Scheffman, *Raising Rivals' Costs*, 73 AM. ECON. REV. 267 (1983).)

[110] See supra note 101 (objecting that such exclusivity results in "shutting out competing providers of search advertising intermediation services.")

[111] See *Complaint P 91, TradeComet.Com LLC v. Google, Inc*., 693 F. Supp. 2d 370 (S.D.N.Y. 2009) (No. 09Civ.1400(SHS)). See also *Press Release: Blumenthal Continues to Press Google on Market Power and Competition Policy,* U.S. Senate, http://bit.ly/LhK6sE

[112] See *News Corporation 10-K,* (August 12, 2009), p. 20, http://1.usa.gov/PFv1jY.

[113] Manne and Wright at 230-231; citing to *Paddock Publ'ns, Inc. v. Chi. Tribune Co*., 103 F.3D 42, 45 (7th Cir. 1996) ("Competition-for-the-contract is a form of competition that antitrust laws protect rather than proscribe, and it is common.") and *Menasha Corp. v. News Am. Mktg. In-Store, Inc.,* 354 F.3D 661, 663 (7th Cir. 2004).

the potential of gaining exclusive contracts with large customers is actually a pro-competitive feature of the market, since it creates an opening for upstart firms to gain a large enough initial market to take on dominant firms and scale up.

However, in the "winner-take-all" markets too common in online markets like Google's search advertising, such foreclosure by a dominant firm may, as the D.C. Circuit argued of Microsoft, help keep a competitor "below the critical level necessary…to pose a real threat" to the monopolist.[114] In the case of Google, each exclusive contract was an opportunity to collect more user data and make each subsequent contract even more likely given the spiraling strength of Google's search advertising platform compared to rivals. Or as Jonathan Rosenberg, Google's own VP of Product Management and Marketing explained in an unguarded statement in 2008:

> We get more users because we have more advertisers because we can buy distribution on sites that understand that our search engine monetizes better. So more users more information, more information more users, more advertisers more users, it's a beautiful thing, lather, rinse, repeat, that's what I do for a living. So that's … the engine that can't be stopped.[115]

The likelihood of illegitimate foreclosure is strengthened by the fact that analysts estimate that Google lost large amounts of money on many of these exclusive deals,[116] feeding the analysis

---

[114] *U.S. v. Microsoft,* 253 F.3D AT 71.
[115] Supra note 111.
[116] For example, Merril Lunch estimated that Google would be able to recoup only $225 million of the $900 million it paid for Fox Interactive Media's search business. *See* Ashkan Karbasfrooshan, *Did Google Overpay for Fox Interactive Media's Search Business?* WatchMoJo, Aug 8, 2006, http://bit.ly/QGbip7

that the goal was not legitimate pursuit of a business in its market but rather had the goal of locking down an insurmountable dominance.

As the rest of this article will detail, the implications of Google's control of user data being the source of its dominance are quite broad. It first makes better sense of what Google is doing as it spreads its business model into producing smart phone operating systems, email systems, video sites, e-commerce projects and its broad range of other endeavors. What unites all of these actions is strengthening the breadth and depth of Google's database of information on individuals across the Internet in ways that become almost impossible for any competitor to match. And to the extent that Google's higher CPC rates come from its dominance of user data, its monopoly may be becoming almost unassailable with antitrust and other regulatory action the only avenue for reform.

III. Control of Personal Data as a New Kind of Weapon for Competitive Dominance

Ultimately, Google's ability to demand higher CPC rates from its advertisers is dependent on its ability to extract private information from the users of its "consumer" products. The privacy violations that many consumer advocates worry about drive the monopoly power that antitrust critics of Google worry about.

And contra the idea that Google just inherited that business advantage through its innovation in search engine technology, Google has aggressively expanded its control through expanding into new product sectors to collect additional user data with the intent to use its presence in those other markets to reinforce its core search advertising monopoly. Beyond the general expansion

into tied markets for user data, the latter part of this section will outline how Google's "bad acts" have included multiple violations of the law through violating user privacy in pursuit of control of user data.

User Data is An Essential Input for Control in Online Advertising Markets

In a nutshell, Google's whole business model is systematically stripping users of their privacy to allow Google to trade its knowledge about them to advertisers to better tailor ads and enhance the economic payoff of user clickthroughs to the advertiser sites.

One of the earlier commentators on this dynamic was former Federal Trade Commissioner Pamela Jones Harbour, who detailed the link of privacy and antitrust policy in the American Bar Association's Antitrust Law Journal.[117] Harbour served on the Federal Trade Commission from 2003 to 2009 and dissented from the FTC decision to allow Google to take over the online display ad company, Doubleclick.[118] Harbour argues that the key goal for Google is acquiring the personal "data used for behavioral marketing," so acquiring DoubleClick, despite being in display advertising as opposed to its core search advertising sector, left Google more dominant than ever in control of key personal information online.

Harbour emphasizes that you miss the mark if you try to talk about "search engine markets" or "map software markets." Instead you have to understand that the product is aggregated personal data where:

---

[117] Pamela Jones Harbour and Tara Isa Koslov, *Section 2 in A Web 2.0 World: An Expanded Vision Of Relevant Product Markets*, ANTITRUST LAW JOURNAL *(*June 2010).
[118] *In the matter of Google/DoubleClick F.T.C. File No. 071-0170.* DISSENTING STATEMENT OF COMMISSIONER PAMELA JONES HARBOUR (2007), http://1.usa.gov/OLSEva

> …[revenue] derives from the accumulation of data, which can then be put to myriad commercial uses… The sites are subsidized, in effect, by trading on the value of accumulated data. In many instances, the data come from individual consumers, who may or may not realize that they are paying for "free" information or services by disclosing their personal information.

Few contest that Google's original PageRank algorithm and early refinements of its search engine was the quintessential "better mousetrap" that rapidly made it a favorite search engine for users on its merits. However, Google has not remained the same company circa 2003 but has aggressively (and sometimes illegally as discussed later in this section) taken action to reinforce that dominance and its control of user data that go beyond that initial success. These include aggressive violations of user privacy that ignored and bypassed consent of those users, as well as expansion that tied new products into its platform to reinforce Google's dominant control of online user information and to destroy the financial viability of potential competitors that might use such products as a potential base for their own advertising platform to challenge Google.

There is no exact equivalent in antitrust law precedent to Google's control of user data such that any nascent competitor cannot obtain enough to be a threat to the company's key search advertising market, but in many ways it is analogous to other monopolists attempts to deny key inputs to rivals, from the denial of key metals to industrial concerns[119] or, possibly of more relevance, to the illegal attempt by Microsoft to eliminate the nascent threat of Internet browsers

---

[119] *Continental Ore Co. v. Union Carbide & Carbon Corp.,* 370 U.S. 690, 693 (supporting a jury finding of antitrust liability by a company "attempting and conspiring to monopolize, trade and commerce in ferrovanadium and vanadium oxide," a key input needed by plaintiff for its industrial production).

to its operating system monopoly by choking off distribution by Netscape.[120] As the D.C. Circuit argued in *U.S. v. Microsoft*, courts can infer antitrust liability "when exclusionary conduct is aimed at producers of nascent competitive technologies as well as when it is aimed at producers of established substitutes."[121]

A. Google's Expansion into New Consumer Products Reinforces that Domination of User Data

The core of Google's aggressive expansion of control over user data in recent years has been rapid extension into a wide range of related product lines where it could collect ever more personal information about online users for its advertisers.

Early on Google created its online email service Gmail, which gave it both an additional online canvas to deliver up ads and collect additional data on user habits through analyzing the text of their emails. [122] This was followed by a string of projects from calendars to its YouTube video service to its Chrome web browser to its Android operating system to its Google Plus social networking launch. Typical of its approach in sweeping into a sector, Google distributed its Android operating system for wireless devices to multiple manufacturers for free beginning in 2008 in order to create an alternative to the iPhone rapidly developing its own dominance in the

---

[120] *United States v. Microsoft Corp.,* 253 F.3d 34, 79 (2001)
[121] *Id.*
[122] Gmail had over 193 million user as of 2010. Joshua Norman, *"Gmail Killer" From Facebook on Its Way?*, CBSNEWS.COM, Nov. 15, 2010, http://www.cbsnews.com/8301-501465_162-20022793-501465.html. Critics early on raised a host of concerns about the privacy intrusions of Gmail; see Electronic Privacy Information Center, *Gmail Privacy FAQ,* http://epic.org/privacy/gmail/faq.html

smartphone sector, one key goal being to gain access to data on users' location to feed into its search advertising engine.[123]

In the video product market, Google not only runs its YouTube service, which has 4 billion views per day and has more search queries than Bing, meaning that Google actually runs the first AND second most popular search engines on the Internet,[124] it is radically expanding its reach into other sectors of the television market. This includes launching Google TV – a software standard for accessing online content via television – which is being installed in an increasing share of televisions sold in stores, [125] which means that Google will increasingly be able to track consumers use of their remote, nudge them towards its content, and allow Google to better target ads based on its knowledge of user viewing habits. Google has also committed hundreds of millions of dollars to creating "niche" channels, led by major institutions and personalities ranging from Madonna to the *Wall Street Journal* to better segment online viewers by particular tastes and demographic niches[126], all the better to serve up targeted ads based on those differentiated viewing habits.

Google's promiscuous promotion of free products online is not an act of charity but what analyst Bill Burley calls the creation of "moats" around Google's "economic castle" (playing off of a metaphor first promoted by Warren Buffet) of online advertising revenue. As Gurley argues:

---

[123] See section III below.
[124] Scott Cleland, *Bork-Sidak's Fatally Flawed Google Antitrust Defense,* THE PRECURSOR BLOG, OCT. 9, 2012, http://bit.ly/UDHpd2
[125] Michael Crider. *Schmidt: Android already beating iPhone, Google TV on most TVs in 2012.* ANDROID COMMUNITY*;* http://bit.ly/uyC2qG (estimating half of televisions will soon have Google TV installed)
[126] John Seabrook. *Streaming Dreams: YouTube Turns Pro*. THE NEW YORKER. January 16, 2012; http://nyr.kr/yXr7Ud

> Android, as well as Chrome and Chrome OS for that matter, are not "products" in the classic business sense. They have no plan to become their own "economic castles." Rather they are very expensive and very aggressive "moats," funded by the height and magnitude of Google's castle… Google is also scorching the earth for 250 miles around the outside of the castle to ensure no one can approach it.[127]

In legal terms, this is essentially analogous to what the U.S. Court of Appeals argued Microsoft was doing when it sought to undermine rivals in the so-called "middleware sector" of online applications like browsers and the Java language. The goal for Microsoft was not monopolization of those related sectors—the Court specifically declined to find liability for monopoly control by Microsoft in those related sectors – but instead were, in the Court's words, "efforts to gain market share in one market (browsers) [which] served to meet the threat to Microsoft's monopoly in another market (operating systems)."[128] Similarly, Google does not have to control related markets like mobile operating systems or online email but just deny potential rivals access to the critical mass of user data across those markets to become viable competitors in Google's core search advertising "castle." And the ongoing expansion of Google's own data storehouse through collecting additional user data in those related markets has the benefit of enhancing the price advertisers are willing to pay for those advertising services, further reinforcing Google's relative monopoly advantage over any potential entrant in its core search advertising.

---

[127] Bill Gurley, *The Freight Train That Is Android*, abovethecrowd.com, March 24, 2011, http://abovethecrowd.com/2011/03/24/freight-train-that-is-android/
[128] *U.S. v. Microsoft* at 60

What is notable is that even comprehensive law articles by Google defenders like Bork & Sidak[129] and Manne & Wright[130] completely fail to discuss how user data collection from the range of Google's consumer products like Android and YouTube fit into its business model, holding onto the fiction that search is an isolated product that can be analyzed largely in isolation from all the other user products feeding data into Google's core search advertising profit center.

Each individual user product Google has produced may not by itself have consolidated the company's monopoly, but taken as a whole the sweep of those products has left little room for any rival to attain the collective mass of user data to become a competitive threat to Google's core search advertising profit center. And as the Supreme Court has argued, antitrust claims are not just a matter of single acts but the agglomeration of acts that can add up to the destruction of competition in a market.[131]

B. E-Commerce and Integrated User Profiles as Tools to Track User Behavior

In its early evolution, Google felt almost like a common carrier, helping users find their end destination, then sending them on their way to other websites via the blue links on a search results page. Google collected a tidy sum based on advertising on those search results pages, but others reaped the customers' end purchase.

---

[129] Supra note 22.
[130] Supra note 33.
[131] *Continental Ore Co. v. Union Carbide & Carbon Corp.,* 370 U.S. 690, 699, 8 L. Ed. 2d 777, 82 S. Ct. 1404 (1962) (plaintiffs should be "should be given the full benefit of [its] proof without tightly compartmentalizing the various factual components…."). Cited in *Alvord-Polk, Inc. v. F. Schumacher & Co., 37 F.3d 996, 1006* (3d Cir. 1994) (plaintiff antitrust claim against wallpaper manufacturers could go forward based on series of actions by defendants); *Aspen Highlands Skiing Corp. v. Aspen Skiing Co.,* 738 F.2d 1509, fn 18 (finding that six types of conduct should be considered not individually but as a whole to determine liability).

Google has moved to change that dynamic in favor of keeping users from leaving the mother ship platform —looping them through interconnected Google search, services and e-commerce sites — and allowing Google to collect a direct slice of the exploding e-commerce pie and, probably more importantly, allowing Google to better track user data throughout their whole online and, increasingly, offline life.

Google's Eric Schmidt highlighted the company's new direction at the 2011 "D: All Things Digital" conference, where he raised the goal of Google delivering answers to search queries that did not deliver links to other websites.[132] Schmidt noted in the talk that this goal is "exactly what drove the acquisition of ITA,"[133] the flight-data company. This will allow Google to respond to a search for "flights from Boston to Chicago" with direct information on flights and schedules. Google's page about the acquisition notes that Google purchased ITA to get beyond "the traditional 10 blue links" of a Google search page and start providing the information directly.[134]

That fits with another 2011 Google announcement, the launch of a new Google Advisor site[135] where consumers can receive offers on mortgages, credit cards, CDs and checking accounts, where Google will directly find offers for them — with Google collecting a fee from whatever financial company the user contacts. And of course, Google adds to its storehouse of information on each user. This will then be a subset of rest of its burgeoning e-commerce

---

[132] Joshua Benton, *Eric Schmidt: Google wants to get so smart it can answer your questions without having to link you elsewhere,* NIEMAN JOURNALISM LAB, June 1, 2001; http://bit.ly/VjkCPG
[133] Darren Murph, *Live from D9: Google's Eric Schmidt takes the stage,* ENGADGET, MAY 31, 2011; http://www.engadget.com/2011/05/31/live-from-d9-googles-eric-schmidt-takes-the-stage/
[134] Google, *Facts about Google's acquisition of ITA Software*, Video presentation, http://www.google.com/press/ita/
[135] http://googleblog.blogspot.com/2011/05/making-financial-comparisons-easy-with.html

empire. Google already runs Google Product Search[136], but the company also acquired Sparkbuy[137], a comparison shopping site, apparently less for the website itself than for the expertise of its staff in enhancing Google's own e-commerce systems. Add in its 2012 "Trusted Stores" initiative where companies will be have to pay Google fees in order to be listed in Google's shopping searches,[138] its Google Offers program, similar to Groupon and Google will be offering an integrated social networking hub for their local e-commerce outreach to customers as well.[139]

Tying all this together potentially is the introduction of Google Wallet, a system to make payments for goods in the real world using your cell phone.[140] Tied to the Android operating system initially, Google hopes to extend it to other phones as well.[141] Google has used its control of the Android system of deploying apps to pressure developers to use the Google Wallet system for collecting payments from customers[142] and will use its deployment of Wallet in phones made by recently acquired to better promote Google Wallet as part of cellphone sales.[143]

---

[136] http://www.google.com/products
[137] Geoff Duncan. *Sparkbuy consumer electronics search bought by Google*. DIGITAL TRENDS. May 24, 2011; http://www.digitaltrends.com/computing/sparkbuy-consumer-electronics-search-bought-by-google/
[138] Cameron Scott. *Google Launches Trusted Stores Program.* PC MAGAZINE. JUNE 7, 2012; http://www.pcworld.com/businesscenter/article/257184/google_launches_trusted_stores_program.html
[139] Miranda Miller. "Google Planning New Small Business Service as Part of Local Revenue Push?" SEARCH ENGINE WATCH. June 6, 2012; http://searchenginewatch.com/article/2182222/Google-Planning-New-Small-Business-Service-as-Part-of-Local-Revenue-Push
[140] Greg Sterling. *With Google Wallet Mobile Payments Era Is Finally Here*. SEARCH ENGINE LAND. May 30, 2011, http://searchengineland.com/with-google-wallet-mobile-payments-era-is-finally-here-78974
[141] Andy Batts. *Google Prepares To Tap Into M-Commerce Opportunity.* SEEKING ALPHA. June 6, 2012; http://seekingalpha.com/article/640721-google-prepares-to-tap-into-m-commerce-opportunity
[142] Alistair Barr. *Google leans on developers to use payment service*. REUTERS. Mar. 8, 2012; http://www.reuters.com/article/2012/03/08/us-google-idUSBRE8271CJ20120308
[143] David Streitfeld. *Erasing the Boundaries.* NEW YORK TIMES. Feb. 12, 2012; http://www.nytimes.com/2012/02/13/technology/keeping-consumers-on-the-digital-plantation.html

As with everything Google, direct revenue from the service is probably secondary to the new data the company will now be able to collect on user behavior to enhance their value to advertisers and justify demanding a share in the end purchase price. And the payoff of Wallet will be the chance to actually observe the full lifecycle of users seeing a Google ad, clicking on it, storing the offer, then seeing which ones actually lead to a purchase. Every click of the button at a checkout counter with Google Wallet will deliver invaluable data on purchasing behavior. Advertising campaigns and their success will be able to be tracked continually from initial display on a website to final purchase. This will deliver nearly the whole lifecycle of financial behavior to surveillance by Google, from what goods and terms people use to search for products to what ads they click on that are associated with those search terms to which offers they download to where they then make a purchase and redeem the offers.

Adding to the goal of Google creating as integrated a profile of users as possible were two changes the company instituted in the last two years, changing its official privacy rules such that users would have only one integrated profile across all Google products and launching its Google+ social networking service. Before the announced user privacy policy change, Google claimed that data collected when a user used YouTube was in a separate silo from data collected when a user used Google search, for example. After the policy change, all of the data on a user from any Google product they are logged into will officially be integrated to help advertisers better target their advertising. While users could theoretically create multiple accounts for different services but that would require repeatedly logging into and out of the different accounts, a “laborious process” in the Electronic Frontier Foundation’s words that would require

using separate browsers for different services to avoid the cookies and other tracking tools that help Google and advertisers track user behavior.[144] Regulators in Europe are already concerned in particular about YouTube data being integrated into a combined user profile and six out of the sixty-nine questions[145] sent to Google by France's privacy regulator CNIL, on behalf of its fellow European regulators, focused fully or partly on YouTube data sharing.

With the explicit aim less of competing with Facebook than to better integrate user data across Google's services, the launch of Google+ was described by Vic Gundotra, Google's vice president for engineering, as a tool to now deliver a "socially enhanced ad at the time of intent," such as when they search for a microwave just before they intend to buy it, rather than placing "an ad placed randomly in a social stream,"[146] making a bit of a knock on the perceived ineffectiveness of Facebook ads.[147] Or, as analyst Matt Rosoff summarized the interview,

> the Google+ service is bait. All Google wants you to do is create a profile and link to some friends with it. After that, Google really doesn't care if you never visit again. As long as you sign in for any other Google service (like Gmail), and then

---

[144] "Rainey Reitman, *What Actually Changed in Google's Privacy Policy: It Shouldn't Take a Letter from Congress for Google to Give Straight Answers About Privacy Policy Changes*, Electronic Frontier Foundation. Feb. 1, 2012; https://www.eff.org/deeplinks/2012/02/what-actually-changed-google%27s-privacy-policy

[145] CNIL, *Questionnaire to Google*, March 16, 2012; http://www.cnil.fr/fileadmin/documents/La_CNIL/actualite/questionnaire_to_Google-2012-03-16.pdf

[146] Nick Bilton, *Countering the Google Plus Image Problem,* NEW YORK TIMES BITS BLOG. Mar. 6, 2012; http://bits.blogs.nytimes.com/2012/03/06/google-defending-google-plus-shares-usage-numbers/

[147] Many analysts note that Facebook ads seem relatively ineffective. See Matthew Ingram, *Questionable Value of Facebook Ads Hangs Over Its IPO,* GIGAOM, May 5, 2012, http://www.businessweek.com/articles/2012-05-03/questionable-value-of-facebook-ads-hangs-over-its-ipo ("click-through rates for Facebook ads are still tiny: on the order of .05 percent. That's substantially worse than the industry average");

> recommend an ad or a Web site once in a while, so Google can put that information in front of your other Google friends, all is well with the world.[148]

Whether a user is watching videos at YouTube, sending email from a Gmail account, checking for updates at Google News, checking their location on an Android phone, or buying a product through Google Offers, this data feeds the accumulating profile that Google has not only on the user as an individual but on aggregated profiles of people like them that Google can package for its advertisers in ads implemented on any and all of those products.[149]

C. Tying, Data Collection and the Google Business Model

Google would not have to favor its own e-commerce or other product offerings in its core search engine to benefit from its data collection in all its various related consumer products and sites, but the fact that the company appears to favor those sites within its core search engine has attracted antitrust scrutiny both in the United States and Europe.[150] Europe has investigated whether Google deliberately lowers the ranking of unpaid search results of competing services; for example, Google is accused of making Foundem, a UK-based search engine that in 2008 was

---

[148] Mark Rosoff, *So THAT'S What Google+ Is Really About: Advertising,* BUSINESS INSIDER, MAR. 6, 2012; http://articles.businessinsider.com/2012-03-06/tech/31126307_1_vic-gundotra-google-service-google-service#ixzz1yHDy8QOD

[149] The level of tracking desired is highlighted by a recent patent by Google for targeting ads based on the background noise of the user. See John P. Mello Jr., *Google Gets Patent for Using Background Noise to Target Ads*, PC WORLD, Mar 20, 2012; http://bit.ly/GFcQtc

[150] See Matthew Ingram. *Will an antitrust investigation derail the Google train?* GigaOM. June 23, 2011; http://bit.ly/ky9rwF (analyzing complaints whether Google purchase of Zagat was being used to bypass rival Yelp);

named the UK's best price comparison site, effectively disappear from Google's natural search results for three years.[151]

In response, Google defenders Bork and Sidak have framed the issue as whether "Google is trying to direct consumers to specialized results so that it can extract additional revenue from advertisements on specialized search results pages... if Google were already earning monopoly rents in general search, it could not increase its total profits by acquiring market power in specialized search."[152] In their view, any additional advertising revenue Google might gain from such favored tying of its general search to specialized search results would be come completely at the expense of losses in income from its general search advertising based on the Chicago School's monopoly-profit theorem.[153]

That standard Chicago School dismissal of the problem of monopoly tying has been challenged repeatedly in recent years.[154] For example, Einer Elhauge has argued that the monopoly-profit theorem is largely a theoretical construct, applying only where markets are "perfectly competitive" and "rivals face no entry or fixed costs, have constant marginal costs that do not

---

[151] Cade Metz. *Google contradicts own counsel in face of antitrust probe. Admits existence of search algorithm whitelists.* THE REGISTER. March 11, 2011; http://www.theregister.co.uk/2011/03/11/google_admits_search_algorithm_whitelists/

[152] Bork and Sidak, supra note 22 at 10-11.

[153] *Id. Citing to* Robert H. Bork, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF 229 (2d ed., Basic Books, Inc. & Free Press 1993); Richard A. Posner, *The Chicago School of Antitrust Analysis,* 127 U. PA. L. REV. 925, 926-27 (1979)

[154] See Einer Elhauge, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theorem*, 123 HARV. L. REV. 397 (2009); Michael D. Whinston, *Tying, Foreclosure, and Exclusion*, 80 AM. ECON. REV. 837 (1990)); Dennis W. Carlton & Michael Waldman, *The Strategic Use of Tying To Preserve and Create Market Power in Evolving Industries*, 33 RAND J. ECON. 194 (2002); Greenlee, Reitman & Sibley, *An Antitrust Analysis of Bundled Loyalty Discounts*, 26 INT'L J. INDUS. ORG. 1132 (2008), Nalebuff, *Bundling as a Way To Leverage Monopoly, Bundling as a Way To Leverage Monopoly* 2-4 (Yale Sch. of Mgmt. Working Paper Series ES, Paper No. 36, Oct. 8, 2004).

vary with output [and] have incentives to always price at cost,"[155] none of which apply to search advertising which has high fixed costs, clearly non-constant marginal costs and many incentives to undercut rivals, as shown by Google's zero-cost consumer products, to gain user data.

Critics of the monopoly-profit theorem have argued it ignores the way tying can deter entry by rivals by making entry profits lower than entry costs[156] and leverage dominance of emerging technologies by preventing a potentially more efficient firm from gaining in the new market.[157] As Elhauge notes, the Supreme Court has been skeptical of any consumer gains from tying in cases ranging from *Jefferson Parish Hospital District*[158] to *Eastman Kodak Co. v. Image Technical Servs.* [159] That such tying can easily be used to protect existing monopoly power was affirmed by the Appeals Court in the *Microsoft* case, based on the fact that Microsoft feared that future browsers could be the launching pad for new applications in competition with its operating system.[160]

Especially when you understand that the tradeoff for Google is not simply more or less revenue from general versus specialized search, or from more advertising deployed on any of its other products from Gmail to mobile phones, but a question of being able to also collect more user data to reinforce its overall search advertising profits, the antitrust danger of Google tying search to the rest of its network of user products becomes clearer. Unlike Bork & Sidak's simplistic model of an increasing share of specialized search by users coming at the expense of general

---

[155] Elhauge supra note 154 at 413.
[156] *Id.;* Whinston supra note 154 at 840, 846.
[157] Elhauge supra note 154 at 418-419; Carlton & Waldman supra note 154 at 194-197, 212-215.
[158] *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2 (1984).
[159] 504 U.S. 451 (1992).
[160] Elhauge supra note 154 at 446-447.

search share, additional specialized search *data on users* increases the value of the general search *advertising* that Google sells to those advertisers. In the realm of information-based markets like search advertising, the Chicago School model ignores that tying is part of the costs of a monopolist in extracting the exclusive knowledge it has over its market vis-a-vis potential rivals, as information economists like Joseph Stiglitz have emphasized.[161]

Another concern with such tying from an antitrust perspective is the way such tying facilitates forms of price discrimination, meaning charging different prices to different consumers. As the Supreme Court wrote in *Jefferson Parish*, such monopoly power through tying "can increase the social costs of market power by facilitating price discrimination, thereby increasing monopoly profits over what they would be absent the tie." [162] This is an issue we will return to extensively in Section 4 dealing with the harm to consumers from Google's monopoly. As will be discussed, the ways Google delivers the ability to engage in price discrimination to its advertisers is more complicated than even the simpler forms of price discrimination that the courts have highlighted, but emphasizes the incredibly limited application of the simple models of Google's behavior promoted by its Chicago School defenders.

One other issue is the way Google's expansion and tying practices undercut any chance specialized search sites might evolve into more general competitors. Manne and Wright argue that Google faced sufficient competition from the many specialized search sites because they attract "high-value traffic" where the specialized expertise of such specialized search engines can

---

[161] Stiglitz supra note 11.
[162] 446 U.S. at 14-15 (1984)

outpace Google's "nontargeted, lower value traffic."[163] What they ignore is that Google's broad data collection on users means that their targeting of users can be far more precise, because they bring to bear everything from the location of the search user to their recent video viewing habits. Any specialization by issue of a particular specialized site is likely to be overwhelmed, especially in the eyes of advertisers, by the far broader and in-depth behavioral information Google brings to bear in targeting both search results and advertisements at users.

Favoring its own content of course just adds deeper data analysis of particular specialized search data, which combined with its broader behavioral data unavailable to any specialized search competitors, will give it an unmatchable competitive advantage. While the Federal Trade Commission in January 2013 argued that favoring its own content in the abstract was not a clear antitrust violation,[164] the Commission did not even reach the issue of whether favoring its own product enhances Google's control of user data. It is not the failure to be search neutral that is the problem, but rather the extended control of user data that Google gains from keeping users on its own sites that is the potential antitrust problem. If Google has violated antitrust law due to its dominance of online advertising and aggressive practices to extend that dominance, then further attempts to extend that control of user data could be found illegal as well. Imposing search neutrality on Google would then come more under terms of remedies to restrain its broader monopoly problem, a point that will be returned to in the section 6.

---

[163] Manne and Wright supra note 33 at 202-203.
[164] *Statement of the Federal Trade Commission Regarding Google's Search Practices*, IN THE MATTER OF GOOGLE INC., FTC File Number 111-0163, January 3, 2013, http://1.usa.gov/WqRvci

But a point worth emphasizing is that because the harm to Google's users from such tying is likely to show up in the longer-term entrenchment of Google's monopoly and the costs to consumers from the company facilitating later price discrimination by its advertisers, the short-term costs to those users will not be evident, especially in "free" products. For that reason, depending on market decisions by those users to restrain Google's monopoly will be ineffective, again emphasizing why antitrust action rather than the depending on the market is needed to correct the problem.

D. Google's String of Illegal Activity in Pursuit of User Data Adds to Antitrust Liability

Beyond the general entrenchment of its monopoly on search advertising from this ever-expanding control of user data from expansion into other online markets, Google has even more directly used its market power to coerce allies in ways that entrench those advantages and engaged in a flatly illegal activities to reinforce its control of user data. Commentators like David Balto can only claim no "bad acts" on Google's resume[165] by willfully ignoring years of illegitimate actions by Google in becoming the dominant controller of online user data it has become.

Symbolic of Google's seemingly overpowering drive for user data is the global scandal it embroiled itself in through its Google Street View project. This was the program where cars drove up and down streets on five continents ostensibly to photograph streets and buildings to enhance its Google Maps product, but which turned out to have the more important goal for the

---

[165] Balto supra note 20.

company of identifying wi-fi hotspots for routers throughout the world. The company could then use those locations in combination with GPS technology in smartphones to more precisely pinpoint user locations at any time. Adding to the scandal when it came out were revelations that Google had accessed and downloaded massive amounts of data from unencrypted wi-fi hotspots in peoples homes, including personal emails and data revealing everything from people's medical histories to their sexual preference to marital infidelity.[166]

This created a worldwide legal maelstrom around the country with multiple nations, including France[167], the United Kingdom[168], Spain, Canada, New Zealand and other countries[169] sanctioning the company for its actions. The most dramatic action was in South Korea, where police seized hard drives from Google, displaying them like a drug bust for the media.[170] In the United States, compounding Google's violations of personal privacy was its resistance to disclosing what exactly it had done and why, to the point that the Federal Communications Commission finally found the company guilty of "willfully" ignoring subpoenas and delaying investigations into the scandal and fining the company $25,000 in a 25-page condemnation in April 2012 that concluded "Google's failure to cooperate with the Bureau was in many or all

---

[166] Federal Communications Commission, *In the Matter of Google Inc.: Notice of Apparent Liability for Forfeiture*, April 13, 2012 at 12-13; http://transition.fcc.gov/DA-12-592A1.pdf

[167] Mimosa Spencer and Ruth Bender, *Google Fined in France Over Street View,* WALL STREET JOURNAL, March 21, 2001; http://online.wsj.com/article/SB10001424052748703858404576214531429686752.html

[168] Paul Sonne, *U.K.: Google Breached Data Laws,* WALL STREET JOURNAL, November 4, 2010; http://online.wsj.com/article/SB10001424052748703506904575591963217799010.html?mod=WSJ_hp_MIDDLENexttoWhatsNewsForth.

[169] Electronic Privacy Information Center, *Investigations of Google Street View;* http://epic.org/privacy/streetview/

[170] Lee Hyo-sik, *Google illegally collected private info*, THE KOREA TIMES; January 6, 2011; http://www.koreatimes.co.kr/www/news/nation/2011/01/117_79291.html; Kim Tong-Hyung, *Police file Charges against Google*; *The Korea Times*; http://news.naver.com/main/read.nhn?mode=LSD&mid=sec&sid1=001&oid=040&aid=0000094521

cases deliberate."[171] Whether the collection of unencrypted personal data was illegal under the federal Wiretap Law is unclear, with a federal judge making a preliminary finding that it likely was[172] and the FCC assuming in its decision that it was likely not[173], but the end product of Google's wi-fi spying was the deepening its location data on individuals' neighborhoods around the world and tightening its dominance of geolocation services generally.

In introducing its Android operating system, Google framed its actions as resisting Apple's monopoly in the smartphone market[174], but in fact the company was at the same time using Android as a weapon to maintain its grip generally on search in a new market, but more specifically on maintaining control of geolocation services and thereby user location information crucial to the increasingly important local advertising markets targeting user based on such location information. As the Google Street View scandal unfolded and the company had to scale back on its geolocation data collection via that method, company executives emphasized internally how it was using deployment of smartphones to help continue its geolocation mapping.

---

[171] FCC, April 13, 2012, supra note 166. Commission comments were almost snarky, "Although a world leader in digital search capability, Google took the position that searching its employees' email 'would be a time-consuming and burdensome task.'"

[172] See decision by Judge James Ware, *In re Google Inc. St. View Elec. Communs. Litig*., 794 F. Supp. 2d 1067 (ND CA 2011), where the judge argued "merely pleading that a network is unencrypted does not render that network readily accessible to the general public and serve to remove the intentional interception of electronic communications from that network from liability under the ECPA.[the Wiretap Law]." (1085)

[173] The Federal Communications Commission did not make a definitive legal ruling on the matter, but it "decided not to take enforcement action against Google" because there was "no Commission precedent addressing the application of" the federal Wiretap law to unencrypted wi-fi networks. FCC, April 13, 2012, Id. at 23.

[174] *Google: we created Android to stop an Apple-dominated future,* ELECTRONISTA, MAY 20, 2010; http://bit.ly/VItqhi

Smartphones by users could collect the same kind of wi-fi hotspot data Google Street View cars had previously provided.[175]

Notably, this came at a same time that separate copyright litigation with Oracle over stolen/borrowed code in Android from the Java language which revealed that Android was costing Google large sums to maintain—in fact, an estimated $97.7 million for 2010.[176] This heavy cost was obviously seen as worth it for the company[177] in reinforcing its core dominance of online advertising[178] and other evidence from an antitrust suit brought by geolocation services competitor Skyhook indicates the company was willing to engage in apparently illegal monopoly action to gain the benefit of that Android dominance.

Skyhook actually pioneered the practice of driving down streets to identify wi-fi hotspots to provide location information for phones (although it didn't collect personal data the way Google did with its "wi-spy" vehicles) and its location-based system is used by a range of competitors to

---

[175] In internal emails detailed by the *San Jose Mercury News,* Android chief Andy Rubin along with other Google executives "emphasized that collecting location data from consumers' smartphones was 'extremely valuable to Google,' and detailed the trouble the company was having with data collection in the wake of a privacy blowup involving Google's Street View cars." Mike Swift, *Google emails highlight value of location data,* SAN JOSE MERCURY NEWS, April 29, 2011.

[176] Damon Poeter, *Report: Android a Loss Leader for Google in 2010*, PC MAGAZINE, May 4, 2012; http://www.pcmag.com/article2/0,2817,2403972,00.asp

[177] What is clear is that Android has been a tremendous success on its own terms with Google CEO Larry Page estimating in April 2012 that 850,000 Android devices were being activated each day on top of the 300 million devices already sold over its history with 55 manufacturers and more than 300 carriers globally promoting Android phones. According to the most recent numbers from Nielsen, Android made up more than 50% of new smartphone purchases in 2012. See Eric Zeman, *Google's Page: 'Android Is On Fire'*, INFORMATION WEEK, April 6, 2012; http://www.informationweek.com/news/hardware/handheld/232800413

[178] A separate GUARDIAN article noted that Google itself estimates that it has made $543 million from Android from 2008 to 2011, if you include all advertising and app sales. Although the article also notes that Google made four times as much from licensing agreements with Apple. Charles Arthur, *Google's Android has generated just $550m since 2008, figures suggest,* THE GUARDIAN, Mar 20, 2012; http://www.guardian.co.uk/technology/2012/mar/29/google-earns-more-iphone-android

Google's location-based products, including by Mapquest.[179] In its current litigation, Skyhook argues that Google had used its control of Android as leverage to force manufacturers in 2010 to drop Skyhook's geolocation service in favor of Google's. In approving further discovery by Skyhook, the judge in May 2011 noted that if proven, this is an example of illegal monopoly action if "Google used its contractual power not to protect its legitimate business interests, but to injure Skyhook and thereby avoid competition."[180] Such a charge of illegal "tying" was exactly the form of illegal action Microsoft was found guilty of when it told manufacturers they had to install the Explorer web browser as a condition of being allowed to install Windows.[181]

The crux of Google's alleged abuse was that when Motorola (then independent of Google) and Samsung announced they were going to use Google's rival Skyhook for their location-based services on their Android smartphones, Google began using the threat of refusing approval of their Android deployment to knock Skyhook out of the competition.[182] Dan Morrill of Google in

---

[179] Hiawatha Bray, *Skyhook technology on new MapQuest app,* BOSTON GLOBE, May 4, 2011; http://www.boston.com/business/technology/articles/2011/05/04/skyhook_technology_on_new_mapquest_app/; Scott Kisner, *Skyhook battles Google in court,* BOSTON GLOBE, NOVEMBER 6, 2011; http://articles.boston.com/2011-11-06/business/30366844_1_wi-fi-google-skyhook

[180] Skyhook Wireless, Inc. v. Google, Inc., *Memorandum of Decision and Order on Motion to Dismiss Or, in the Alternative, for Summary Judgment in Favor of Defendant Google, Inc.*, Superior Court Civil Action No. 2010-03652-BLS1, May 2, 2011.

[181] *U.S. v. Microsoft*, 253 F.3d at 64 ("all the license restrictions [on manufacturers mandating installation of the Explorer brower] at issue represent uses of Microsoft's market power to protect its monopoly, unredeemed by any legitimate justification.")

[182] In a June 2010 email from Motorola to Skyhook: "As you will see from the language in a note received from Google (relevant text is coped below), Skyhook's implementation of the XPS service on Motorola's device renders the device no longer Android compatible."Skyhook Wireless, Inc. v. Google, Inc., *Affidavit of Douglas R. Tillberg in Support of Skyhook's Opposition to Google's Motion to Dismiss or For Summary Judgment Along with Exhibits,* Superior Court Civil Action No. 2010-03652-BLS1, March 18, 2011 (Part 2) at 27; http://www.tech-progress.org/wp-content/uploads/2011/05/Skyhook-part-2.pdf

August noted that pretending the issue was one of "compatibility" with the Android system was an obvious fig leaf:

> "it's not like it isn't obvious to the OEMs [manufacturers of the smartphones] that we are using compatibility as a club to make them do things we want."[183]

Note the word "club" by a Google insider for what they were using to stop Skyhook. Emails from the Skyhook litigation lay out a clear strategy for Google keeping dominance of location-based services: minimize notice to users, maximizing data collection, and using control of the Android operating system to "club" allied manufacturers. And just to insure that it would have at least one major wireless manufacturer setting a standard that served its interests, Google announced in August 2011 that it was acquiring Motorola[184], which had been just a focus of the tussle with Skyhook.

The competitive advantage for Google from this control of geolocation data was highlighted by the spectacular public lashing Apple received in fall 2012 for inaccuracies in the mapping app it sought to substitute for Google Maps, a backlash so severe software head Scott Forstall, a touted heir to the CEO position, was forced to resign.[185] The debacle, an analyst wrote, illustrated the challenge of "catching up to 8 to 10 years worth of geolocation services development and

---

[183] Id. at 116.
[184] Hayley Tsukayama, *Google agrees to acquire Motorola Mobility*, *The Washington Post*, August 15, 2011, http://www.washingtonpost.com/blogs/faster-forward/post/google-agrees-to-acquire-motorola-mobility/2011/08/15/gIQABmTkGJ_blog.html
[185] *Scott Forstall Resigns Over Apple Maps Debacle: Report,* HUFFINGTON POST, Oct. 30, 2012; http://huff.to/XTkgSR

leadership by Google."[186] If Apple from its privileged position of controlling the iPhone/iPad ecosystem faces such a challenge in marshaling the data to effectively compete with Google in a secondary market like geolocation services, it strains credibility to expect any competitor to marshal the user data to overcome Google advantages in its core search advertising bailiwick.

The full illegality of Google Street View "wi-spy" violations of user privacy in their homes, the illegality of YouTube's use of copyrighted material to build its user base, and the illegality of the use of the compatibility "club" (in the words of Google employee) to force Android manufacturers to deny geo-location business to Google rival Skyhook are all still being litigated, but the Federal Trade Commission has made two other official legal findings of Google violating privacy and consumer fraud laws in its aggressive pursuit of user data.

In the first, the FTC found that when Google launched its original attempt at a social network, Google Buzz, the company "used deceptive tactics and violated its own privacy promises to consumers" in ways that led many of its Gmail users to unwillingly share personal information automatically on the new social network.[187] The FTC forced Google to agree to a 20-year consent decree promising to inform users of any changes in its privacy practices in the future and other privacy safeguards, along with annual reporting and monitoring components.[188]

Just a year later, the FTC found that Google had violated the consent decree and fined the company $22.5 million, the largest fine ever for a violation of a Commission order. The FTC

---

[186] Jason Perlow, *Apple iOS 6 map flap gives Google geolocation advantage,* ZDNET, SEP. 22, 2012; http://zd.net/UnCeNf

[187] *FTC Charges Deceptive Privacy Practices in Google's Rollout of Its Buzz Social Network,* Federal Trade Commission Press Release, Mar 20, 2011, http://www.ftc.gov/opa/2011/03/google.shtm

[188] *In the Matter of Google Inc., Agreement Containing Consent Order,* File No. 102 3136, Federal Trade Commission, Mar 20, 2011; http://1.usa.gov/evPtzk

found that Google had secretly placed "cookies" to track the online activities of people using the Safari web browser, despite having publicly "told these users they would automatically be opted out of such tracking." Google had deliberately found a vulnerability in Safari's "default cookie-blocking setting" in order to collect the information for its advertising data collection purposes, while publicly misrepresenting to users that it was not doing so.[189]

One final set of illegal acts sustains Google's dominance, namely that the large initial user base for Google's YouTube service, which was acquired in 2006, was at least partially built by the original founders allegedly encouraging massive copyright infringement by users.[190] Whether one believes in a limited role for holding online companies responsible for copyright infringement on their sites or a more expansive liability for them, the intersection of infringement, network effects and antitrust would encourage greater scrutiny of whether YouTube/Google dominance of online video comes not from its own merits as a service but because users valued it as a gateway to accessing illegal and infringing content. Having signed up all those users, however, Google's acquisition of YouTube exponentially expanded its data about user preferences and interests.

---

[189] *Release: Google Will Pay $22.5 Million to Settle FTC Charges it Misrepresented Privacy Assurances to Users of Apple's Safari Internet Browser,* FTC, Aug 9, 2012, http://www.ftc.gov/opa/2012/08/google.shtm

[190] See *Viacom Int'l, Inc. v. YouTube, Inc*., 676 F.3d 19 (2012) (2nd Circuit finding that Google knew that "60% of YouTube's content was 'premium' copyrighted content" when it acquired the company and that "reasonable jury could find that YouTube had actual knowledge or awareness of specific infringing activity on its website.")

E. How Google's Illegal Maintenance and Expansion of its Control of User Opens it to Antitrust Liability

This whole series of illegal and potentially illegal activities help sustain the assumption that Google's overall drive for control of user data is part of a pattern of exclusionary conduct subject to antitrust liability. While no single illegal act necessarily implies an antitrust violation,[191] courts have found that a series of illegal or just improper conduct can add up to Section 2 liability.[192] As the Second Circuit has written, "If monopoly power has been acquired or maintained through improper means, the fact that the power has not been used to extract [a monopoly price] provides no succor to the monopolist."[193] Where improper means have been used to sustain a monopoly, courts usually simplify their economic analysis with a greater presumption of harm to consumer welfare, current or presumptive.

Where there is a combination of such illegal or illegitimate acts backing up monopoly power, the Supreme Court does not require proof that any individual act was decisive in creating or maintaining the monopoly. As Daniel Crane notes, governments can "combine disparate, independently unlawful acts into a monopoly broth if the plaintiff advances a coherent theory

---

[191] *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp*., 509 U.S. 209, 225 (1993) ("[e]ven an act of pure malice by one business competitor against another does not, without more, state a claim under the federal antitrust laws").

[192] *Associated Radio Service Co. v. Page Airways, In*c., 624 F.2d 1342, 1358 (5th Cir. 1980), cert. denied, 450 U.S. 1030, 1356 (1981) ("no one of the instances of improper conduct, standing alone, would lead to section 2 liability. Taken together, however, they show a pattern of exclusionary behavior sufficient to support the jury's verdict"). Also See *Berkey Photo, Inc. v. Eastman Kodak Co*., 603 F.2d 263, 274 (2d Cir. 1979); Cited in *U.S. v. Microsoft at* 57.

[193] *Berkey Photo* Supra Note 192 at 274.

about how the disparate acts combined to injure competition," such as seeking to "starve the rival of resources needed to compete."[194]

Google's consistent drive in each of these cited illegal and improper acts fits this definition by being dedicated to controlling user data across the Internet, denying that data to competitors, and attaining a relative and absolute advantage in that control versus potential rivals to strengthen its monopoly in search advertising. Ultimately, it is the fact that no other company combines such a diverse set of data on users as Google or can deploy an ad at the "time of intent" when people search for a product or service that makes Google's emerging monopoly in online advertising so unassailable. Given the premium Cost Per Click (CPC) charged advertisers by Google because of this superiority in targeting users, combined with the fixed costs in maintaining such a multi-product platform to access this breadth of user data, it clear that Google's continuing aggressive expansion of that control of user data, through both its relentless tying of its core search advertising engine into new product sectors and through its often illegal acquisition of user data, leaves the company subject to Section 2 liability, since it will not face viable competition without antitrust action by government agencies.

---

[194] Daniel A. Crane, *Does Monopoly Broth Make Bad Soup?,* 76 ANTITRUST L.J. 663 (2010). In a piece overall arguing against too easily linking illegal acts into an antitrust claim, he does cite to examples of *Continental Ore, Conwood v. United States Tobacco Co*., 290 F.3d 768 (6th Cir. 2002). (Section 2 liability for combination of torts such as trade libel and destroying plaintiff's store racks to injure rivals) and *Associated Radio Service Co.,* 624 F.2d at 1358 ("evidence of bribery of customers' representatives or of the employee of the supplier, viewed in the context of evidence of other exclusionary conduct, could be probative of a section 2 violation").

IV. The Costs of Lost Privacy: How Google's Monopoly Costs Users and Increases Economic Inequality in the Economy

As detailed in section two, antitrust regulators could reasonably make a charge of "consumer harm" from Google's monopoly based on the undermining of competition, ultimately higher prices for advertisers, and the likely increased costs passed onto consumers more generally.

What is ignored by many Chicago School advocates who justify monopoly profits as the fruit of innovation is that much of the costs involved in obtaining that monopoly position are dead weight costs in the economy, just as many of the maneuvers involved in tying markets together involve a range of misallocation costs.[195] The costs for Google of acquiring and processing user data constitute additional wasted resources if in service for maintaining such monopoly power.[196] The deliberate lack of consumer data security -- and the attendant losses to identity theft -- used to maintain the ability by Google to allow behavioral profiling by its advertisers, is also a clear deadweight consumer loss under the law. [197]

However, limiting any investigation to just these deadweight and loss of competition costs would miss out on the far more pervasive economic costs to users from Google's control of their private data. Google's defenders argue that users benefit from a rational market exchange. In exchange

---

[195] Elhauge supra note 154 at 427-427 (critiquing Chicago School on ignoring ex ante costs of building monopoly power and misallocation costs of tying)
[196] Stiglitz, supra note 11 (Result of companies exploiting search costs and price discrimination means "More successful firms may not be more efficient firms, but more effective discriminators.")
[197] Douglas M. Kochelek, *Data Mining And Antitrust*, 22 Harv. J. Law & Tec 515, 528 (Spring 2009) (offers a similar example of the way digital rights management technology is deployed by firms to impose price discrimination and prevent after-market arbitrage and "create waste that is not present in a competitive market.")

for providing some personal data to Google, those users get access to a valuable service. However, assuming that the market is functioning in such a case requires that (1) those users properly value the benefits they receive from Google, (2) that they properly price their personal information and the opportunity cost of giving it up, and that (3) there are no economic byproducts of Google's monopoly control of user data that reduce consumer welfare more generally. As this section will detail, there is strong evidence that users do not properly calculate any of those three factors in the exchange with Google, leading to large costs to the public from Google's dominance.

Without viable alternatives to Google, you end up with a stunted "market" for valuing user privacy, so Google feels less and less compunction about violating personal privacy to benefit its advertising customers. While scholars like Frank Pasquale have noted the danger of analyzing loss of privacy and other harms from Google in just economic terms since that misses many of its non-economic harms[198], those clear economic harms merit antitrust action even if other regulatory actions or legislation may be needed to address the full gamut of privacy losses.[199]

The deeper harm to consumers from Google's power in the market — and one that is at the heart of the increasing economic equality in our society — is the way profiling by Google of its users

---

[198] Frank Pasquale*, Beyond Innovation and Competition: The Need For Qualified Transparency In Internet Intermediaries*, 104 NW. U.L. REV. 105, 143 (Winter, 2010) ("Engaging in a cost-benefit analysis diminishes privacy's status as a right."). He also details many non-economic harms from search, from mistaken same-name reputational harms to unearthing credit reports or expunged records. Id. at 114. See also C. Edwin Baker, *Media Concentration: Giving Up on Democracy*, 54 FLA. L. REV. 839, 857 (2002) (Noting antirust largely ignores loss to public from "monopoly power over the content available for consumer choice."). Vidhyanathan also analyzes a wide range of non-economic harms of Google's concentrated dominance as well. Supra note 21.

[199] Frank Pasquale and Oren Bracha have promoted just such an alternative regulatory approach in *Federal Search Commission? Access, Fairness, And Accountability In The Law Of Search*, 93 Cornell L. Rev. 1149 (September, 2008).

for advertisers allows the kind of predatory marketing we saw in the subprime housing bubble globally and in a range of other sectors. Online profiling based on user data allows seedier companies, from subprime mortgage lenders to payday lenders, to target the most naïve and vulnerable potential consumers and facilitates new forms of price discrimination even by more legitimate firms that allows those companies to extract the highest potential price for goods and services from each customer. The result is harm to those victimized consumers and a more pervasive increase in economic inequality.

A. Users Overestimate the Value-Added of Google's Services and Do Not Receive the Full Economic Value the Data They Share With Google

Without discounting the value-added by Google's aggregation services in search and a range of its other products, a basic truth is that most of the value delivered by Google is access to other peoples' labor and knowledge, most of which Google accesses for free itself. With Google seemingly the gateway to "the Internet" itself, whether in search, YouTube videos, or Android apps, its value can seem literally incalculable.

In fact, companies like Google take advantage of work produced by countless other organizations and individuals across the Internet in ways writer Nicholas Carr has referred to as "digital sharecropping" where the Internet "provides an incredibly efficient mechanism to harvest the economic value of the free labor provided by the very many and concentrate it into the hands of the very few."[200]

---

[200] Nicholas Carr, *Sharecropping the long tail,* ROUGH TYPE, December 19, 2006; http://www.roughtype.com/archives/2006/12/sharecropping_t.php; see also Vaidhyanathan supra note 21

Google's innovation in search technology was in fact built around harvesting the diffuse labor of people across the Internet. Its original Page Rank algorithm used the links to other websites created by web site creators across the Internet as a tool to assess and rank the likely value of websites containing similar information or keywords. This system of highly ranking websites valued by other users has been supplemented by also measuring what sites Google's own users click on when they make a particular search. Each click adds to the algorithm that can direct users with similar searches and interests to see the same link highly ranked as well. The more people find and use other people's content via Google, the better Google's algorithm becomes, reinforcing the precision and strength of its search engine vis a vis any challenger search technology which would lack access to the network of users and the information they generate on search preferences.[201] Other Google services play out much the same dynamic, with users gaining important technological advantages from using Google but ultimately getting greater value from the labor of other users, thereby confusing any simple economic valuation of what Google is providing. This also apparently confuses many analysts who attribute greater innovation to the company when its search quality advantages are in fact due to the monopoly dominance that gives it such a disproportionate share of those users feeding it that data.

Users Undervalue Their Own Personal Data: If users attribute too much of the value they gain from accessing online content to Google, they also clearly underestimate the economic value of the personal data they share with Google in exchange for accessing its services. Because there is no price paid for the data by Google or paid by users for the Google products those users use,

---

at 30 ("Google is taking a free ride on the creative content of billions of content creators.")
[201] James Grimmelmann, *The Google Dilemma*, 53 N.Y.L. SCH. L. REV. 939 (2008 / 2009); Pascquale *Beyond Innovation and Competition*, footnote 50 at 116.

you end up with a zero price barter exchange, which as David Evans notes, results in "conundrums and confusion in antitrust analysis" since gains or losses on price, quality and other factors for users in a zero price exchange are disguised. Standard antitrust analysis loses the price measure for evaluating such issues, since, as Evans highlights, "5% more than zero is still zero." [202]

On the face of it, the fact that Google is de facto involved in a barter relationship with its users, trading its tools for their individual private information, is a pretty clear indication that users are unlikely to be getting the full market value of their data—and means that analyzing the situation in term of economic models of market exchange makes little sense.[203] Like most barter economies, pricing is opaque and creates massive opportunities for economic arbitrage by the sophisticated side of the barter transaction—ie. Google. Essentially Google users are the primitive tribes of the Internet, accepting the shiny trinkets of Gmail and free search in exchange for their privacy. As anthropologists will attest about such primitive systems of non-market exchange, they can be dynamic and productive in ways market economies may not be in certain situations,[204] just as writers like Clay Shirky, Yochai Benkler and Helen Nissenbaum describe how modern collaborative "peer production" online can be wildly productive.[205] But what's

---

[202] David Evans, *The Antitrust Economics of Free,* COMPETITION POLICY INTERNATIONAL, Spring 2011 at 2-13; http://ssrn.com/abstract=1813193

[203] There is a rich anthropological tradition critiquing the reduction of non-market barter relationships to a simple market equivalence. Caroline Humphrey, has written. "No example of a barter economy, pure and simple, has ever been described;" quoted in David Graeber,. DEBT (2012) at 29.

[204] See Marcel Mauss, ESSAI SUR LE DON (1924.

[205] See supra note 215

true is that the interaction of the market with such non-market systems is a recipe for economic exploitation.[206]

A large part of the problem is multiple studies show most users don't even understand that their private data shared with online companies like Google are being shared with third parties to assist in marketing advertising.[207] This largely reflects that sharing the data is a default when signing up with a service with little information shared with users to educate them about the consequences of sharing their data. The massive amount of data being shared online does not reflect public preferences: a 2012 Pew survey, 73 percent of the American public were opposed to search engines even tracking their search history to improve search results and 68 percent opposed use of user data to assist advertisers in targeting advertisements. But most of those users expressed no capacity to control what data is shared online.[208] Other researchers find that desires to stop tracking, aggregating and dissemination of personal information has been

---

[206] Karl Polanyi has been one of the foremost documenters of the historical disruptions where market and non-market systems have collided. See THE GREAT TRANSFORMATION (1944) and TRADE AND MARKET IN THE EARLY EMPIRES (1957); see also Paul Bohannan, *The Impact of Money on an African Subsistence Economy*, 19 JOURNAL OF ECONOMIC HISTORY 491-503 (1959).

[207] Jan Whittington & Chris Jay Hoofnagle, *Unpacking Privacy's Price,* 90 N.C.L.REV. 1327 (2012) ("American consumers profoundly misunderstand the rules underlying these transactions; they do not understand the terms of trade."); Ponnurangam Kumaraguru & Lorrie Faith,, *Privacy Indexes: A Survey Of Westin's Studies*, Cranor, Inst. For Software Research Int'l, Carnegie Mellon Univ. 13 (2005), *available at* http://reports-archive.adm.cs.cmu.edu/anon/isri2005/CMU-ISRI-05-138.pdf. (about half of Americans believe that "[m]ost businesses handle the personal information they collect about consumers in a proper and confidential way."); Chris Jay Hoofnagle & Jennifer King, *Research Report: What Californians Understand About Privacy Offline* 9–19 (May 15, 2008) (working paper), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1133075 , Alessandro Acquisti & Jens Grossklags, *What Can Behavioral Economics Teach Us About Privacy?*, *in* DIGITAL PRIVACY: THEORY, TECHNOLOGIES AND PRACTICES 363 (Alessandro Acquisti et al. eds., 2008) (bounded rationality, optimism bias, and information asymmetry lead consumers TO undervaluing personal information).

[208] *Search Engine Use 2012*, PEW INTERNET AND AMERICAN LIFE REPORT, Mar. 9, 2012, http://bit.ly/yXCsFk. Just 38% of internet users say they are generally aware of ways they themselves can limit how much information about them is collected by a website.

increasing.[209] Yet almost nowhere do defenders of Google price in the costs to consumers of loss of privacy, yet as Peter Swire has noted, the nature of data aggregation is such that "consumers with high privacy desires lose as data is concentrated in one company's hands."[210]

Notably, while dismissing the search bias antitrust claim against Google, Federal Trade Commissioner J. Thomas Rosch expressed concern that Google's "monopoly or near-monopoly power in the search advertising market" derives from Google "telling 'half-truths'—for example, that its gathering of information about the characteristics of a consumer is done solely for the consumer's benefit, instead of also to maintain a monopoly or near-monopoly position."[211] He cited precedents that a company's claims to be acting on behalf of consumers while downplaying potential consumer harms not fully disclosed could create legal liability.[212]

Google's barter for user privacy may be opaque and primitive, but that contrasts sharply with the way the company monetizes that personal data to advertisers who pay very precise dollar terms in the modern part of the Google economy. And those advertisers pay prices far above the costs spent by Google on the tools provided to users — as highlighted by Google's massive profits year after year. That advertising side of Google's internal economy is actually a monument to converting privacy into a modern currency, with sophisticated auctions for key words and

---

[209] Avi Goldfarb and Catherine Tucker, *Shifts in Privacy Concerns*, Working Paper, January 28, 2012**,** http://ssrn.com/abstract=1976321 (millions of online decisions analyzed showing rising desire for privacy online)

[210] Peter Swire, PROTECTING CONSUMERS: PRIVACY MATTERS IN ANTITRUST ANALYSIS, Submitted Testimony to the Federal Trade Commission for Behavioral Advertising Town Hall, October 19, 2007, http://1.usa.gov/VmjxFa

[211] Supra note 10.

[212] *Id. International Harvester Co.,* 104 F.T.C. 949, 1058 (1984) ("[I]t can be deceptive to tell only half the truth, and to omit the rest."); *North American Philips Co.,* 111 F.T.C. 139, 188 (1988) (initial decision) (holding that half-truths can be deceptive).

phrases based on particular user demographics and backgrounds that the advertiser may be looking for. One analyst describes this as less the sale of privacy itself by Google, but rather the sale of a "privacy derivative", where companies invest in Google's appraisal of customers' needs and wants.[213]

Why Aren't Users Paid for Their Data? Some Google defenders ask what could be better for consumers than getting all of Google's services free? This is part of obscuring the economic value of personal data, much as early bank customers might not have expected more of banks than protecting their money in a vault for free until competitors began offering to pay them interest on that money deposited and offering rewards to customers using their credit cards. Economists regularly note that in two-sided markets where commercial interests want a large base of users of a product, such as credit card companies, users on one side of the transaction are regularly paid to adopt the product.[214] Just as banks leverage deposits to make money lending it out, Google makes money off of personal data deposited with them – yet a legal question is why most Google users don't get a cut of the money Google makes off of their data?

Along with the general ignorance discussed above, Google thrives on the expectations of freely shared online "peer production" which, as media professor Clay Shirky highlights, has a whole value system eschewing expectation of any precise quid pro quo exchange of value.[215] Based on

---

[213] See Karl T. Muth's, *Googlestroika: Privatizing Privacy*, DUQUESNE LAW REVIEW (2009) for more on how Google monetizes user privacy.

[214] Marc Rysman, *The Economics of Two-Sided Markets*, THE JOURNAL OF ECONOMIC PERSPECTIVES, VO. 23 NO. 3 Summer, 2009 at 129.

[215] Clay Shirky, COGNITIVE SURPLUS (2010). See also Yochai Benkler and Helen Nissenbaum, *Commons-based Peer Production and Virtue*, THE JOURNAL OF POLITICAL PHILOSOPHY (Volume 14, Number 4: 2006) at 394–419.

research that shows more voluntary activity when payment is not involved[216], Google's quasi-barter relationship with its users may potentially be eliciting more free content and information from its users than if it actually paid them for it.

With all this, the first step in the transfer of wealth via Google is from users selling their privacy for too little and Google arbitraging user ignorance and their psychological mode of collaboration over market exchange for profit. This is the product of Google largely having the field to itself without serious competitive pressure to actually offer users the real value of their data. Competitors have tried to introduce models where users get a cut of the advertising revenue generated,[217] but with even Bing losing $2.5 billion per year already, it's hardly surprising few companies have moved very far in the direction of further increasing their losses.

The result is that there is then little pressure on Google to offer anything to users either out of its quite substantial profits from marketing user data to advertisers. Google did begin a small pilot program in 2012 called Google Search Screenwise that offers $25 per year to a select set of people using the Chrome browser, although the numbers were limited and Google framed the plan not as a general reimbursement of users for using their data but merely a "market research

---

[216] See Bruno Frey and Lorenz Goette, *Does Pay Motivate Volunteers?* (Zuerichbergstrasse, Zurich: Institute for Empirical Research in Economics, 1999), http://ideas.repec.org/s/zur/iewwpx.html (Offering money depressed the number of hours of labor the average volunteer contributed); See also Michael Tomasell, H. Rakoczy and F. Wameken, *The Sources of Normativity: Young Children's Awareness of the Normative Structure of Games*, DEVELOPMENTAL PSYCHOLOGY, 44.3 (2008): 875-81 (children as young as fourteen months will exert less effort when an extrinsic reward is tied to an activity they like and then the reward is taken away.)

[217] Boaz Berkowitz, *Cha-Ching: Microsoft Pays Users to Search with Bing,* SEEKING ALPHA, Aug. 10, 2009, http://bit.ly/hJzzn; Robin Harris, *Microsoft stops paying us to use Bing,* ZDNET STORAGE BITS, June 6, 2010; http://zd.net/c5ejmD

survey."[218] So Google can dip its toe into paying a few users for even deeper revelations of their private activity, while encouraging the vast majority of its users to continue thinking of participation in its services and sharing their data in non-market terms.

However, if Google had less dominance of the online advertising field, there would be far greater pressure for Google to develop as sophisticated a market for users to be compensated for their privacy as the sophistication of the markets in which it resells that lost privacy to advertisers.[219]

C. Why User Data is So Useful to Advertisers: "Pain Points" and the Consumer Harm of Price Discrimination Facilitated by a Monopoly Player like Google

Clearly, given Google's advertising profits, the user data the company collects is incredibly valuable and a number of analysts have put a price on what that data is worth for each individual user. For example, Michael Fertik, CEO of the company Reputation.com, a service to help consumers keep their personal information anonymous online, estimates that data can be worth up to $5000 per person per year to advertisers, depending on how much they spend and how it is used by online companies like Google.[220] McKinsey has estimated that data mining broadly can increase operating margins by 60 percent for companies.[221]

---

[218] Jeff Bertolucci, *Google Search's Screenwise vs. Bing Rewards: Which Pays More?,* PC WORLD, Feb 9, 2012, http://bit.ly/Ziis3E

[219] Rysman supra note 214 at 131 (noting how competition in credit card payment systems has increased rewards payment to consumers).

[220] Quentin Fottrell, *Who Would Pay $5,000 to Use Google? (You)*, SMARTMONEY.COM, Jan 25, 2012; http://blogs.smartmoney.com/advice/2012/01/25/who-would-pay-5000-to-use-google-you/ ("'Their entire market cap is related to how much data is being collected and used,' says Jules Polonetsky, director of the Future of Privacy Forum, a Washington, D.C.-based think-tank.").

[221] McKinsey Global Institute, BIG DATA: THE NEXT FRONTIER FOR INNOVATION, COMPETITION, AND PRODUCTIVITY, REPORT, May 2011, 6, http://bit.ly/KGS3vj

To get some sense of the value of user information, look at the recent controversy over another big Internet player, namely Apple, when it demanded that sellers of subscriptions to apps on the iPhone had to give Apple not just 30% of sales, but sole control of user information as well. Lauren Idvik at Mashable noted that publishers like the *Financial Times* may not have liked the 30% cut Apple wanted from subscriptions, but "the main problem is that Apple will not share subscriber data with publishers, long one of publishers' most valuable assets, particularly to advertisers." That the personal data, not the 30% cut, was the real sticking point in negotiations, indicates that personal information is worth potentially more than 30% of the cost of what you purchase online, yet most users give it away for free to companies like Google and Apple.

As we will return to in the remedies section, any governmental action that strengthens user privacy rights, such as requiring an opt-in agreement for each specific use of their data by anyone collecting the information, would both reduce the amount of personal data being extracted and create a potential "friction" point where Google and other related data miners might feel compelled to pay users at least part of what that data is worth to convince them to share their private data., as well as guarantee better security for that data.

That initial loss by users of giving their private information away too cheaply is just the start of the consumer harm from Google's dominance of the online advertising marketplace and its control of user data. The deeper potential harm stems from the reason companies pay Google such a premium for that data in serving up advertisements to them based on that personal information.

The most positive spin on this use of user data for targeting ads is that it helps those companies find the customers interested in their products—and that's part of the story. But it's not just

finding customers; it's finding out what price different groups of customers will pay for the same product or service and marketing it separately to them at those different prices.

The darker version of online marketing is that it can facilitate what economists call "price discrimination," selling the same exact good at a variety of prices in ways unknown to the buyers. This is based on the reality that people have different maximum prices that they are willing to pay, a so-called "pain point" after which they won't buy the product.[222] The ideal for a seller would be to sell a product to each customer at their individual "pain point" price without them knowing that any other deal is available. In general, economists believe that where consumers do know all the pricing options, they can benefit from price discrimination. The classic example is airline pricing, where consumers willing to book ahead and take only certain flights get a lower price, while more well-off or time-sensitive consumers will pay more for the same seat to book at the last minute for a specific flight. This arguably fills seats, increases revenues for the airline and gives some people access to cheaper seats that might not be available at all at the lower price without price discrimination.

The problem arises when consumers don't have all needed information. As economist Joseph Stiglitz describes, "the presence of information imperfections give rise to market power in product markets. Firms can exploit this market power through 'sales' and other ways of differentiating among individuals who have different search costs."[223]

---

[222] Ian Ayres, *Super Crunchers* 173 (2007) ("[Firms] are becoming more adept at figuring out how much pricing pain individual consumers are willing to endure and still come back for more." Analyzes ways firms use data mining to set individualized coupon discounts even at traditional stores.)
[223] Stiglitz, Id.; see also Steven Salop and Joseph Stiglitz, *Bargains and Ripoffs: A Model of Monopolistically Competitive Price Dispersions*, REVIEW OF ECONOMIC STUDIES, October 1977, 44(3),

With public advertising, a customer willing to pay a higher price will generally demand the lower price advertised to someone else, although they may not notice the alternative ad, creating some imperfections in the marketplace. However, data mining and targeted Internet advertising allows sellers to make different advertising offers to particular groups of consumers based on correlations derived from past behavior or user location that are essentially invisible to anyone charged a higher price or missing out on a coupon. A 2012 *Wall Street Journal* report found that major companies, including Staples, Home Depot, Discover Financial Services and Rosetta Stone, were systematically using information on user physical locations to display different online prices to different customers. And contra the hope that such price discrimination might benefit low-income bargain hunters, the *WSJ* found that "areas that tended to see the discounted prices had a higher average income than areas that tended to see higher prices," largely on the assumption that poor areas have fewer retail options locally so a higher price can be extracted from them by online retailers. [224]

In the case of search advertising, the *New York Times* in 2010 profiled how web coupons are deployed to target offers based on user behavior, including with different coupon offers being made based on different search terms on Google. As Ed Mierzwinski, consumer program director for the United States Public Interest Research Group (USPIRG) noted, companies "offer you, perhaps, less desirable products than they offer me, or offer you the same product as they

---

pp. 493-510; S. A. Lippmana nd D. K. Levine, eds., THE ECONOMICS OF INFORMATION; Steven Salop; *The Noisy Monopolist: Information, Price Dispersion and Price Discrimination*, REVIEW OF ECONOMIC STUDIES, October 1977, 44(3), pp. 393-406, Stiglitz, *Monopoly, Non-linear Pricing and Imperfect Information: The Insurance Market*, REVIEW OF ECONOMIC STUDIES, October 1977, 44(3), pp. 407-30.

[224] Jennifer Valentino-Devries, Jeremy Singer-Vine And Ashkan Soltani, *Websites Vary Prices, Deals Based on Users,* Wall Street Journal, Dec. 23, 2012; http://on.wsj.com/Tj1W2V

offer me but at a higher price." USPIRG is asking the Federal Trade Commission for tighter rules on all online advertising precisely because of this problem.[225] Ian Ayers in his book *Super Crunchers* describes how data mining and selective discount offers to individuals is making prices increasingly opaque to consumers.[226] Offering only full-price offers to some online buyers while selectively offering discounts to others based on online profiling is one of the most pervasive forms of price discrimination operating in online sales.[227]

Despite hopes that online commerce would create greater consumer empowerment to engage in price comparisons, such hidden price discrimination frustrates that hope and adds to the shifting of power in overall online bargaining to sellers. Firms have also invested in a range of online strategies, from mandatory add-ons to multiple versions of a product to deliberately complicated descriptions designed to frustrate simple price comparisons between sites. Glenn and Sara Fisher Ellison have detailed these "price obfuscation" strategies and found they can regularly lead to far higher markups (12 percent average) even for commodity technology goods like memory modules than would be expected in a more frictionless market.[228]

This all undercuts any model of online commerce that resembles the neoclassical ideal of a single equilibrium price for goods. Instead it far more reflects the information economics model

---

[225] Stephanie Clifford, *Web Coupons Know Lots About You, and They Tell,* NEW YORK TIMES*,* April 16, 2010; http://www.nytimes.com/2010/04/17/business/media/17coupon.html
[226] Ayers, *Super Crunchers* at 175.
[227] Natasha Singer, *You for Sale: Mapping, and Sharing, the Consumer Genome*, NEW YORK TIMES, JUNE 16, 2012, http://nyti.ms/LcBw0g (Details how Axciom "assigns consumers to one of 70 detailed socioeconomic clusters and markets to them accordingly… [with sellers making] customized appeals any time, anywhere.")
[228] Glenn Ellison and Sara Fisher Ellison, *Search, Obfuscation, and Price Elasticities on the Internet,* ECONOMETRICA, Vol. 77, No. 2 (Mar. 2009) at 427-429 ("Obfuscation can be thought of as an action that raises search costs, which can lead to less consumer learning and higher profits.")

of high search costs and variations in consumer rationality being used by firms to create a dispersion of prices. That allow firms to evaluate those search costs for different consumers and set prices in ways that extract the maximum revenue from each transaction.[229] A key point from evaluating consumer welfare is that despite any advertised "bargains" or sales, overall prices in such a regime of obscured prices and seller price discrimination end up higher than any model of competitive prices where all price information was openly known and advertised.[230] Where such price dispersion and obscured information exists, firms have a quasi-monopolist power to set prices which, as Steven Salop and Joseph Stiglitz outline, "they would be unable to do in a competitive market with perfect price information."[231]

D. The Economics of Price Discrimination in Google's Business Plan

The question is how central facilitating such price discrimination is to Google's business model? Given that Google appointed Hal Varian, who has written extensively about price discrimination in online advertising for decades[232], to be the company's Chief Economist in 2005, the answer seems to be that it's likely quite central to their model.

That same year, Varian outlined the advantages to advertisers of online marketing and price discrimination in a piece he co-authored for the journal *Marketing Science* that echoed many of the basic insights of information economics in the context of online sales. Google's Varian highlights the failure of most price discrimination to yield profits in traditional marketing

---

[229] Salop and Stiglitz supra note 223 at 493-496.
[230] *Id.* at 502.
[231] *Id.* at 508-509.
[232] Hal Varian's writing on price discrimination dates back at least to 1980 in his paper, *A Theory of Sales,* THE AMERICAN ECONOMIC REVIEW, Vol. 70, No. 4 (Sep., 1980), pp. 651-659.

because of the visibility of different prices to most customers, but that "significant initial investments in information technology can lead to competitive advantages" that lock-in user loyalty while collecting personal information to make price discrimination profitable.[233] As he describes:

> Because so many transactions are now computer mediated, and these computers can easily be networked to data centers, sellers now have the ability to access databases of past purchases in real time. This allows them to condition current offers to consumers on their previous purchase behavior. Sellers can offer each individual a different price, a particular prize or coupon, or personalized recommendations. With computer-mediated transactions, price discrimination on an individual basis becomes quite feasible.[234]

Varian notes that differential pricing will be most effective on "the fraction of the potential population [which] is myopic and ignores the impact of their current behavior on future offerings" and how undermining the ability of users to make their behavior anonymous increases the costs to users of evading price discrimination—a point he hits repeatedly in the piece and a good explanation of Google's focus on obliterating anonymous browsing online.[235]

Through lock-in to particular services, building loyalty (or just making it a chore to log-in or out of the online service), and designing a "selling platform with the goal of making the adoption of

---

[233] Alessandro Acquisti and Hal R. Varian, *Conditioning Prices on Purchase History*, MARKETING SCIENCE, 2005 24(3) at 367.
[234] Id. at 367.
[235] Id. at 368.

defensive technologies prohibitively costly for the consumer",[236] these kinds of approaches will increase the profits of companies at the expense of their customers, particularly the "myopic" ones, even under competitive markets. While Varian's example in 2005 was clearly Amazon, the measures he focuses on – user lock-in, integrated user profiles, defeating anonymity – describe exactly the systematic deployment of products and systems Google has pursued as well.

As early as 2005, Google was applying for patents on how to sell advertising based on such behavioral and demographic tracking, where one patent specified, "advertisements are personalized in response to a search profile that is derived from personalized search results."[237] Since 2009, Google has been rolling out beta tests of such behavioral profiling for advertisers and last year fully implemented its coordination of advertising with targeting demographic groups identified by Google based on user browsing activity, behavior, and physical location.[238] So companies working with Google can more and more effectively segment the market by demographic profiles yielding the "myopic" customers who will pay the maximum price based on their demographic and behavioral characteristics.[239]

---

[236] Id. at 374.

[237] U.S. Patent Office. *Results based personalization of advertisements in a search engine*, UNITED STATES PATENT APPLICATION 20050222989, October 6, 2005; http://appft1.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PG01&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.html&r=1&f=G&l=50&s1=%2220050222989%22.PGNR.&OS=DN/20050222989&RS=DN/20050222989

[238] Pamela Parker, *Google Rolls Out Behavioral Targeting To All AdWords Advertisers*, SEARCH ENGINE LAND, June 23, 2011; http://searchengineland.com/google-rolls-out-behavioral-targeting-to-all-adwords-advertisers-82976

[239] Ahmadali Arabshahi, *Google's Groupon Strategy: Algorithmic Price-Sensitivity Quotients*, AHMADALI'S BLOG , Jan. 17, 2011, http://www.ahmadalia.com/blog/2011/01/google-groupon-strategy.html. (Detailing how such behavioral tracking can work for Google in creating a profile for advertisers that helps identify price-sensitive versus price-insensitive customers. He sees Google's launch into Groupon-like Offers working with local businesses as a way for Google to better monetize its data on its users.)

Varian's analysis focuses on a number of scenarios where seller use prices discrimination to increase overall sales but, in many, any overall economic value added in the economy "is entirely due to the increased profit received by the seller,"[240] while in a number of other scenarios outlined by Varian, consumer welfare as a whole actually falls. Even if economic efficiency overall strengthened in some scenarios, the fact that those gains include a large loss for some or in many cases all consumers to the advantage of sellers emphasizes that arguments that technology increases overall "consumer welfare" means little if all of the increased economic growth goes only to sellers at the expense of actual consumer. Both courts and many scholarly analysts have emphasized that the Sherman Act is not an economic efficiency maximization statute and that productivity gains from monopoly-maintaining innovation that benefit sellers at the expense of consumers still constitute a violation of antitrust law.[241]

Rosa-Branc Esteves and Joana Resende in more recent research highlight the ways that, because of the low costs of online advertising,[242] such online price discrimination can reduce consumer

---

[240] Aquisti and Varian supra note 233 at 372.

[241] Elhauge supra note 154 at 435 ("Antitrust standard is consumer welfare, not total welfare"); citing to *NCAA v. Bd. of Regents of Univ. of Okla*., 468 U.S. 85, 107 (1984) (quoting Reiter v. Sonotone Corp., 442 U.S. 330, 343 (1979)) and *Arizona v. Maricopa County Med. Soc'y*, 457 U.S. 332, 367 (1982).

[242] See Rosa-Branc Esteves and Joana Resende, *Competitive Targeted Advertising with Price Discrimination*, WORKING PAPER, March 2011, http://ideas.repec.org/p/nip/nipewp/08-2011.html. Esteves and Resende contrast their results when low advertising costs are assumed with disputed studies over whether, in cases of more costly conventional advertising, targeted advertising increases profits. See Nada Ben Elhadj-Ben Brahim, Rim Lahmandi-Ayed, and Didier Laussel, *Is targeted advertising always beneficial?* Working Paper (January 15, 2010) ("When the advertising cost is high, targeting reduces firms' profits relative to random advertising."); http://www.tn.refer.org/CEAFE/Papiers_CEAFE10/Eco_indus2/Belhadj.pdf versus Iyer G, Soberman D, and Villas-Boas J. M. ,*The Targeting of Advertising*, MARKETING SCIENCE 2005; 24(3); 461-476 ("the targeting of advertising increases equilibrium profits.")

surplus to the advantage of corporate profits.[243] They emphasize that models of price discrimination that benefit consumers are based on the assumption that consumers are perfectly informed of all available prices, but with imperfect consumer information and targeted advertising, models shift towards price discrimination benefiting company profits at the expense of consumers.[244] One implication of their models is that "average prices with mass advertising (non-discrimination) are below those with targeted advertising," which follows the idea that firms will target certain consumers with promotions while enjoying higher prices paid by Varian's "myopic" consumers unaware of discounts offered to others.[245]

E. The Case for Legal Action on Consumer Harm from Price Discrimination

With so much of seller profit from price discrimination online derived from exploitation of "myopic" customers failing to know about or find cheaper alternatives to the prices offered them,[246] a number of antitrust theorists who focus on allocative efficiency argue price discrimination is one category of consumer harm that demands legal action.

In his *Unconscionability and Price Discrimination*[247], Mark Klock, while accepting most traditional Chicago School skepticism of government regulation in the marketplace, argues that any situation where one set of consumers is unknowingly paying more for the same product than others is a clear sign of a failure in the marketplace that calls for government intervention. He is

---

[243] Esteves and Resende at 1 ("price discrimination through targeted advertising may be detrimental to social welfare since it boosts industry profits at the expense of consumer surplus.)
[244] Id. at 6-7.
[245] Id. at 28.
[246] Aquisti and Varian supra note 233
[247] Mark Klock, *Unconscionability and Price Discrimination*, 69 Tenn. L. Rev. 317 (Winter 2002).

skeptical of hypothetical cases of consumer gain from price discrimination[248] and argues a "sound policy would prohibit firms from charging different prices based solely on the identity of the customer."[249] Echoing the studies discussed above, Klock and others argue such price discrimination established under the aegis of a monopolist in the marketplace is even more harmful to consumer welfare.[250] Douglas M. Kochelek has also highlighted that the rise of data mining online has made the problem of price discrimination far more pervasive in the economy, raising the importance of deploying antitrust as a curb on dominant players using it.[251]

Given that Google's control of user data to facilitate price discrimination is based at least partially on tying so many services that extract that data into its core search advertising product, it's worth emphasizing that the Supreme Court has condemned traditional tying in many cases because it allowed companies to identify different classes of consumers and, as stated in *Jefferson Parish*, to use that power "to impair competition…by facilitating price discrimination, thereby increasing monopoly profits over what they would be absent the tie."[252]

What's unique about Google is that it can use its monopoly power not just to engage in price discrimination directly in regards to its advertising customers and potentially with users in its own e-commerce efforts, but is a vehicle for companies across the economy to engage in such consumer harm via price discrimination, which should raise the priority for restraining its power

---

[248] Id. at 358 (dismissing the "empirically unsubstantiated case in which price discrimination achieves allocative efficiency.")
[249] Id. at 367
[250] Id. at 329 ("Economists consider the price-discriminating monopolist to be very undesirable…data mining technologies are able to facilitate price discrimination within a monopoly market"); Kochelek supra note 197 at 531.
[251] Kochelek supra note197.
[252] 466 U.S. at 14-15. See Elhauge's general analysis of this line of cases, noting the way courts disfavor the way tying facililates price discrimination. Supra note 152.

in the marketplace. While firms would no doubt be taking advantage of targeted advertising to engage in price discrimination whatever the competitive nature of the search advertising industry, the lack of competition in the sector feeds the monopoly ability of Google to extract user data. A more developed market for user data and a more fractured set of players in the sector would give advertisers more limited integrated data on users to engage in price discrimination.

Both Klock and Kolechek argue that, in the ideal, the explicit antitrust language in the Robinson-Patman Act on price discrimination should be a tool to address the problem.[253] While the Robinson-Patman Act arguably does not address the harm of price discrimination to primary consumers,[254] it does potentially address situations where the ability, which Google has, to facilitate price discrimination is a primary attribute strengthening its monopoly power vis-a-vis competitors.[255] In any case, more general antitrust enforcement under the Sherman Act should be sufficient in cases of monopoly players wielding price discrimination and imposing the dead weight losses for consumer welfare discussed above.[256]

---

[253] Both Klock supra note 247 and Kochelek supra note 197 have doubts, however, that courts will accept their arguments.

[254] See Frederick M. Rowe, *Price Discrimination Under The Robinson-Patman Act* 173 (1962)(arguing Robinson-Patman does not apply to consumer transactions). Kochelek largely dismisses the likelihood of using Robinson-Patman for this reason, Kolchelek supra note 197 at 525-526 ("Accordingly, the practice likely cannot be regulated under the primary-line theory of the Robinson-Patman Act.")

[255] While Klock agrees that case law makes him skeptical of using Robinson-Patman, he argues agencies and courts might broaden interpretation of Robinson-Patman in light of the expansion of price discrimination in the marketplace. Klock supra note 247 at 379. However, neither consider the case such as Google where the ability to engage in price discrimination is largely the basis of undermining the ability of competitors to enter the same market, so Robinson-Patman might be more applicable in this case.

[256] Kochelek supra note 197 at 526 (Regardless of the particular theory of the purpose of antitrust regulation one accepts, the economic effects of data-mining-based price discrimination suggest that such conduct ought to be proscribed by the Sherman Act."). However, Klock in particular thinks the potential

F. Subprime Mortgages, "Ambulance Chasers and Snake Oil Salesmen": Online Advertising Unleashes the "Tawdry" Side of Capitalism

How widespread the use of price discrimination and behavioral marketing is among legitimate businesses using Google to increase their profits at the expense of consumers is largely a matter for investigation by federal agencies, since Google quite obviously keeps such data closely held. There is of course wide-ranging use of selectively offered promotions on web sites throughout e-commerce online promoted through Google search and display advertising, so that basic form of price discrimination is clearly in place. Evaluating the broad ways consumers are harmed by such selective price discrimination, a harm that Google's own Chief Economist details is far more than a theoretical possibility, should be a primary focus for antitrust investigations into Google.

However, while Google's facilitation of price discrimination can increase profits for all businesses**,** targeted advertising has maximum appeal to the unethical and even illegal businesses seeking to prey on such "myopic" consumers that Google can help them identify. Early Internet visionary Jaron Lanier, who pioneered ideas like "virtual reality" two decades ago, has noted that such access to behavioral targeting has even more appeal to the "tawdry" kinds of firms than the "dignified side of capitalism", since "ambulance chasers and snake oil salesmen" among the capitalist class thrive on such targeted access to their victims.[257] Lanier argues that:

---

enforcement threat of direct class action lawsuits by consumers wielding Robinson-Patman is a potentially better deterrence[256] than depending on agency or competitor lawsuits against price discrimination under the Sherman Act. See Klock supra note 247 at 377.

[257] John Brockman, *The Local-Global Flip, or, "The Lanier Effect": A Conversation with Jaron Lanier*, EDGE, Aug. 29, 2011; http://edge.org/conversation/the-local-global-flip

> Google's thing is not advertising…It's a link. It's just a little tiny minimalist link…What they're doing is they're saying, 'You give us money, we give you access to these people, and then what you do with them is up to you.' It's a gate keeping function. It's an arbiter of access. It's turning connections instead of being open into being paid."[258]

This also emphasizes that to the extent that Google's version of advertising is distinct in its function from other traditional advertising.

Racial and Economic Profiling Online: Study[259] after study[260] has shown that employers, financial lenders, car salesmen and other merchants use profiling to charge black and Hispanic customers more for the same product or service when they can identify them. For example, a study by the Urban Institute using paired "testers" — one white person and one person of color with similar economic profiles — found that non-white homebuyers received less favorable financial terms from mortgage lending institutions.[261] Job seekers face similar discrimination with one study, where nearly identical resumes were sent to 1300 help-wanted ads, found that resumes with a "white-sounding" name were 50 percent more likely to get a call for an interview than one with a black-sounding name.[262] Just in 2012, the U.S. Department of Justice negotiated

---

[258] Id.
[259] Margery Turner et. al., *All Other Things Being Equal: A Paired Testing Study of Mortgage Lending Institutions*, URBAN INSTITUTE REPORT PREPARED FOR THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT OFFICE OF FAIR HOUSING AND EQUAL OPPORTUNITY, April 2002; http://www.urban.org/UploadedPDF/1000504_All_Other_Things_Being_Equal.pdf
[260] Marianne Bertrand and Sendhil Mullainathan, *Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination*, BASED ON NBRE WORKING PAPER, June 20, 2004; http://www.economics.harvard.edu/faculty/mullainathan/files/emilygreg.pdf
[261] Margery Turner et. al., supra note 259.
[262] Bertrand and Mullainathan, Id.

a $175 million settlement with Wells Fargo for illegally steering more than 30,000 black and Hispanic lenders between 2004 and 2009 into more costly subprime mortgages or charging them higher fees than comparable white borrowers.[263]

Online behavioral targeting can combine a home address and a few more characteristics to create an almost perfect proxy for race. Rebecca Goldin, a George Mason University professor, argued in a 2009 article, that while it's clearly illegal to discriminate based on race, if companies offer loan rates based on shopping habits, it raises the question of "would it be legal or ethical to use the kind of music one buys to determine his or her loan rate?"[264] The Supreme Court has essentially invited such data-driven discrimination by prohibiting explicit race preferences or discrimination but allowing disparate impact along racial lines as long as decisions were made based on "race-neutral" criteria.[265]

As *ColorLines* magazine has noted, a "user's browsing history, their location and IP information…combined with information available in Google's public data explorer (including

---

[263] James O'Toole, *Wells Fargo in $175M discriminatory lending settlement,* CNNMONEY.COM, July 12, 2012; http://money.cnn.com/2012/07/12/real_estate/wells-fargo-lending-settlement (typical African-American borrower paid nearly $3,000 more in fees than a similarly qualified white applicant). In an echo of the search for "myopic" customers promoted by Google's Varian, in a subprime-mortgage related lawsuit, Washington Mutual loan officer Greg Saffer related in a legal filing that trainers at his bank instructed loan offers to target sub-prime loans to poor areas that that the "best areas to market are in lower income areas like Compton and Long Breach because the people are less sophisticated there." Excerpted in Moe Tkacik, *Confessions of an Economic Hate Crime,* DASKRAPITAL, Jul. 30, 2012, http://bit.ly/M60GdB.

[264] Rebecca Goldin, *Doting on Data*, NOTICES OF THE AMS Book Review (April 2009); http://www.ams.org/notices/200904/rtx090400483p.pdf

[265] Justice O'Connor argued for "race-neutral means to increase minority participation" in *Adarand Constructors, Inc. v. Pena*, 515 U.S. 200, 238 (1995); see *Owens v. Nationwide Mutual Inc. Co*., No Civ. 3-03-CV-1184-H, 2005 WL 1837959) (N.D. Tex. Aug. 2, 2005) (even if credit scores have disparate impact on minorities, race-neutral business reasons for credit scores allow their use); *Powell v. American General Finance., Inc*., 310 F. Supp. 2d 481 (N.D.N.Y. 2004); cited in Ayers, *Super Crunchers* at 175.

US census, education, population, STD stats, and state financial data) presumably could also be folded into the personalized search algorithm to surmise a lot more than your race."[266] While not conclusive, there is evidence of companies using names or other evidence such as physical location to offer differential advertising through Google based on race and ethnicity.[267]

Google and the Subprime Mortgage Crisis: What is unquestionable is that Google advertising lay at the heart of the largest example of price discrimination and consumer harm of the last few decades, namely the subprime mortgage destruction of family wealth and the financial crisis that followed.

Google isn't usually identified as a big player in the subprime mortgage debacle and its aftermath, but a significant portion of Google's profits in the mid-2000s were coming straight from subprime mortgage lenders advertising on its site. As Jeff Chester of the Center for Digital Democracy said back in 2007 "Many online companies depend for a disproportionate amount of their income on financial services advertising, with subprime in some cases accounting for a large part of it."[268]

---

[266] Jorge Rivas , *Google Calls Racial Profiling Claims 'Wildly Inaccurate',* COLORLINES, SEPT. 28, 2011,http://colorlines.com/archives/2011/09/google_responds_to_preliminary_study_says_their_ads_don t_racially_profile.html

[267] See Latanya Sweeney, *Discrimination in Online Ad Delivery,* Working Paper, January 2013, http://arxiv.org/ftp/arxiv/papers/1301/1301.6822.pdf (finding ads associate term "arrested" with black-sounding names more than with white-sounding names); Nathan Newman. "Racial and Economic Profiling in Google Ads: A Preliminary Investigation (Updated)." *Huffington Post.* September 21, 2011; http://www.huffingtonpost.com/nathan-newman/racial-and-economic-profi_b_970451.html. (survey found examples of different ads being served up based on the ethnicity of names and location of the computer)

[268] Jeff Chester. "Role of Interactive Advertising & the Subprime Scandal: Another wake-up call for FTC." *Digital Destiny.* August 28, 2007; http://www.democraticmedia.org/jcblog/?p=349

To give some sense of its importance, Nielsen/Netratings in July 2007 of the online display advertisers spending the most money,[269] the top five online advertisers were involved in the mortgage lending industry to some extent, delivering almost $200 million in monthly revenue to online advertising companies like Google, with literally hundreds of billions of views of those online ads driving the frenzy for refinancing and subprime mortgages with ads like "LowerMyBills" and other online enticements.

Those numbers above are for display ads only, a segment in which Google was and is a prime player through its Doubleclick purchase. Google does not share data on specific revenue from particular companies on its AdWords and related search advertising, but reports at the time showed the mortgage companies paying top dollar for related keywords like "mortgage" and "refinance" with prices going as high as $20 to $30 for each user click on an ad using those terms.[270]

Companies enticed customers with unrealistic "teaser rates" - heavily advertised online - that burdened borrowers with toxic terms and unmanageable obligations that exploded in later years. And as the racial and exploitive aspect of the mortgage meltdown was endemic with what some scholars described as reverse redlining, "the practice of targeting borrowers of color for loans on unfavorable terms."[271] This offering of differential rates based on the characteristics of the

---

[269] *NIELSEN//NETRATINGS Reports Topline U.S. Data For July 2007,* NEILSEN/NETRATINGS, July 2007; http://www.nielsen-online.com/pr/pr_070813.pdf

[270] Faisal Laljee. "Subprime Mortgage Bust Could Create Ad Trouble for Google." *Seeking Alpha.* February 22, 2007; http://seekingalpha.com/article/27736-subprime-mortgage-bust-could-create-ad-trouble-for-google

[271] Raymond H. Brescia. "Subprime Communities: Reverse Redlining, The Fair Housing Act And Emerging Issues In Litigation Regarding The Subprime Mortgage Crisis." *Albany Government Law Review* (Vol. 2 2009); http://bit.ly/ngavgD

borrower constitutes the most damaging price discrimination inflicting consumer harm in American history, for which Google played an integral (and profitable) role as an advertising intermediary where it was earning billions of dollars a year in that role.

Google's Continued Role in Facilitating Financial Exploitation of Consumers: The financial industry remains the bedrock of Google's advertising revenues. According to WordStream, a company specializing in helping companies bid effectively on Google Ads, the three most expensive categories of keyword searches as measured by cost per click are in financial services (insurance, loans and mortgages), with 45.6% of the top 10,000 advertising keywords falling in those categories.[272]

And many of those advertising bidders at Google are from the more bottom-feeding aspects of the industry, particularly payday loan lenders, who offer extremely high-interest loans for consumers made in exchange for a commitment to repayment from the person's next paycheck. Such loans have been banned or severely restricted as exploitative in multiple states.[273] The new Consumer Financial Protection Bureau (CFPB) has been holding hearings specifically on abuses in the industry, with CFPB head Richard Cordray saying "some payday lenders [are] engaged in practices that present immediate risk to consumers and are clearly illegal."[274]

Yet Google actively solicits ads from the industry, including setting up a trade booth at the Online Lenders Alliance, a trade group comprised mainly of payday lenders. Industry observers

---

[272] Larry Kim, *The Most Expensive Keywords in Google AdWords,* WORDSTREAM BLOG, July 18, 2011; http://www.wordstream.com/blog/ws/2011/07/18/most-expensive-google-adwords-keywords

[273] *Payday Lending Statutes,* National Conference of State Legislatures, http://www.ncsl.org/issues-research/banking/payday-lending-state-statutes.aspx (accessed July 2, 2012)

[274] Richard Cordray, *Remarks by Richard Cordray at the Payday Loan Field Hearing in Birmingham, AL,* CONSUMER FINANCIAL PROTECTION BUREAU, JAN. 19, 2012, http://1.usa.gov/Rw7KZf

have cited this involvement as a step beyond passively accepting ads from dubious sources to actively enabling evil. Robert X. Cringely, who has covered Silicon Valley for over twenty-five years, argues that out of financial self-interest, Google is burying bad news about the industry for consumers, since he found Google "placed the uniformly negative news items near the bottom of the results, below the fold as we used to say in the newspaper business."[275]

Whether Google is actively hiding damning consumer analysis of the evils of its financial advertisers, what is true is that Google maintained ads from illegal mortgage "loan modification" firms preying on desperate homeowners even after the company was alerted to the problem. Such firms advertise heavily online with consumers looking for keywords such as "stop foreclosure, then promise solutions that never deliver and further impoverish those homeowners facing financial default. Back in February 2011, the consumer group Consumer Watchdog published a scathing report highlighting the concentration of such firms advertising on Google,[276] but Google did nothing about the problem until the Treasury Department took regulatory action in November of that year under its TARP authority to shut down 85 of these scam advertisers who were luring customers through Google. "Many homeowners who fall prey to these scams, initially do so through these Web banners and other Web advertising," Christy Romero, Deputy Special Inspector General for the Troubled Asset Relief Program, said in an interview.[277]

---

[275] Robert X. Cringely, *Google's Pound of Flesh*, I, CRINGELY, Sept. 27, 2010, http://bit.ly/NbUN5e
[276] *Liars and Loans: How Deceptive Advertisers Use Google*. Consumer Watchdog's INSIDE GOOGLE Report. February 21, 2011. http://www.consumerwatchdog.org/resources/liarsandloansplus021011.pdf
[277] Jay Greene. "Feds shut down high-tech mortgage scammers." *CBSNews.com*. November 16, 2011; http://www.cbsnews.com/8301-205_162-57326180/feds-shut-down-high-tech-mortgage-scammers/

Promoting Illegal Drug Advertisements Earned Google One of largest Civil Forfeitures in American History: In a similar vein to Google's promotion of unethical and illegal financial advertisers, in August 2011, Google agreed to pay a $500 million civil forfeiture to the federal government, one of the largest in history, as part of a settlement penalizing the company for illegally and –significantly – knowingly allowing illegal pharmacies to advertise on its site. This was not passive activity by Google, but active complicity with advertisers often selling fake prescription medicine to desperately ill individuals or marketing illegal steroids. "Larry Page knew what was going on," Peter Neronha, the Rhode Island U.S. Attorney who led the probe, told *The Wall Street Journal.*[278]

As early as 2003, Google was put on notice by the government that its advertisements for various foreign-based pharmacies were illegal, yet the company continued to assist many of them in placing and optimizing their AdWords advertisements. In fact, a follow-up story by the *Wall Street Journal* detailed how a felon, David Whitaker, who ended up collaborating with the federal government to target Google, had fled to Mexico and was advanced credit by Google and assisted by Google ad executives in designing ads to sell illegal steroids and similar products.[279] Federal agents created a website designed to look "as if a Mexican drug lord had built a website to sell HGH and steroids" and Google ad executives worked with Mr. Whitaker to find ways around Google's official rules barring such ads and went on to tape record conversations where he directly told Google ad executives that his goals was to be "the biggest steroid dealer in the

---

[278] Thomas Catan and Amir Efrati, *New Heat for Google CEO: U.S. Says Google's Larry Page Knew About Improper Online Pharmacy Ads*, WALL STREET JOURNAL, August 27, 2011, http://on.wsj.com/nG9BO0

[279] Thomas Catan, *Con Artist Starred in Sting That Cost Google Millions*, WALL STREET JOURNAL, January 25, 2012, http://on.wsj.com/wroiBc

United States."[280] Disturbingly, documentation about the individual culpability of Google executives was sealed as part of the settlement with prosecutors, which prevents other government officials from evaluating the evidence in light of broader anti-trust and other regulatory concerns.[281]

G. The Broad Consumer Harm from Google's Monopoly is Not Being Corrected by Market Mechanisms

These examples are just the most obvious unethical and illegal categories of advertisers that have been highlighted due to government investigations. What is most worrying is that the nature of targeted advertising means that a whole range of niche scams and economically exploitive relationships can be focused on those most vulnerable to the scam's appeal, while remaining essentially invisible to everyone else, including reporters and researchers trying to evaluate the harms from Google's advertising methods.

As detailed above, there are broad reasons why consumers are not demanding a fair return from Google when trading off their privacy in exchange for using Google's services. However, there are even more obvious market failures from these broader financial losses where consumers lack information on the operations of price discrimination and the danger of many of these predatory firms advertising online.

---

[280] *Id.*

[281] Clint Boulton, *Google's Page Knew of Illegal Pharmacy Ads: DOJ*, EWEEK.COM, Aug. 28, 2011, http://bit.ly/nS3Y7A. See also Nathan Newman, *Erosion Of Public Scrutiny Of Litigation- And Irony Of Google Wanting Privacy For Its Judicial Dealings* , TECH-PROGRESS.ORG, Feb. 18, 2011; http://www.tech-progress.org/?p=101

In measuring consumer harm, then, it is therefore the broad financial losses to consumer welfare facilitated by lost privacy and Google's data mining efforts, including the predatory behavioral targeting of users provided by Google based on its control of user data, that should be a prime focus for investigation by antitrust regulators and legislative leaders. Much of this is no doubt in the day-to-day price discrimination encouraged for businesses using online advertising but a significant fraction is also from companies engaged in unethical to illegal activities facilitated by the company.

V. Remedies to Address Google's Monopoly

What's clear is that "the market" is not fixing the problem of Google's overwhelming dominance of online advertising and the related problem of the continual violations of user privacy that have exploded in the Web 2.0 era. Because Google's dominance is tied to its whole complex of data-collecting services and aggressive leveraging of those services for strategic power and privacy-destroying practices, antitrust remedies demand a combination of changes in the ecosystem controlled by Google in order to dent its concentration of power over user data across the Internet and beyond.

Only coordinated government action will have the investigative heft to determine exactly how data mining and behavioral profiling by Google and its advertisers is leading to a decrease in consumer welfare of users to serve the profits of the already wealthy. The fact that profitable price discrimination depends on a combination of user ignorance and service lock-in, according

to Google's own Chief Economist Hal Varian,[282] means the market alone cannot address that issue of equity and market power by Google.

Similarly, markets have shown themselves incapable of policing the broader harms to society that stem from wide-scale harms such as the subprime mortgage crisis, which stemmed from combinations of consumer ignorance and price discrimination in mortgage offers. Public action is equally needed to police the "tawdry" side of capitalism, whose advertisers seem endemic on Google, from its fake "loan modification" scams to illegal pharmacies.

Traditional antitrust enforcement would help accomplish some of these goals, but because of the complexity of implementing some through agencies and the courts, others might better be implemented through existing powers of the Federal Trade Commission and other agencies. Other measures may call for additional legislation to bring both antitrust and consumer protection laws more explicitly up-to-date to address the broad consumer harm and rising economic inequality stemming from data mining online. As will be discussed, this complexity in entangling Google's dominance emphasizes the more general point that earlier intervention is actually more warranted in technology markets precisely because dislodging incumbents is more complex than traditional antitrust divestiture solutions.

Broadly, remedies can address Google's dominance in three major ways, separately and in combination: (1) Reduce Google's control of overall user data, (2) Create a real market for user data by empowering users, (3) Impose public interest obligations on Google to restrain damage to consumer welfare.

---

[282] See section IV.

A. Remedy Approach 1: Reduce Google Control of User Data

There are a number of tools possible for reducing Google's share of user data and advertising online. As discussed in section II, the most straightforward monopoly violations by Google are its restrictions on the ability of its advertisers to easily use competing online advertising platforms such as Microsoft's Ad Center.[283] These include eliminating any contractual limits on advertisers "multi-homing" their advertising campaigns on multiple platforms and eliminating restrictions on software tools to easily manage ad campaigns on multiple platforms.

However, unless Google's disproportionate control of user data is reduced, this is unlikely to make any rival search advertising platform economically viable. One option that resembles most traditional antitrust remedies would be to have Google divest itself of some of the user products, such as Gmail, YouTube, Google Offers, and/or its Android ecosystem, which harvest user data for the company. This would serve the dual purposes of reducing the overall data advantage Google has over existing advertising competitors and it would potentially create additional competitors with a compelling base of user data to compete with Google within the online advertising market. Much of concern about Google's recent integrated privacy policy, both in the United States and by European privacy regulators[284], was explicitly that rich sources of user data from search would now be combined with data on video viewing habits to create a much more intrusive user profile. Separating these assets into different companies would greatly reduce those privacy concerns by having less integrated profiles of each user in any one hand,

---

[283] See Section II.
[284] See section III; CNIL, *Questionnaire to Google*, March 16, 2012; http://www.cnil.fr/fileadmin/documents/La_CNIL/actualite/questionnaire_to_Google-2012-03-16.pdf

while eliminating the dominance Google has in search advertising through its current control of those integrated profiles.

Within its core search product, a similar option would be to require Google to adopt some version of "search neutrality" where it can't favor its own e-commerce related links. The point is not necessarily that directing users to its own e-commerce sites is itself an antitrust violation,[285] but that harvesting the data from doing so reinforces its broader monopoly on control of user data – a distinction that few Google defenders make when opposing search neutrality.[286] While there are legal[287] and practical challenges to implementing such "search neutrality", which we will return to, restricting Google's ability to use its search engine to further collect data on users through bias in its organic search results would reduce Google overall access to user data.

---

[285] Some Google critics, especially in Europe, do argue this, just as many Google defenders overfocus on search as a "product" that is not itself monopolized, but the point of this article has that it is the harvesting of user data in the context of Google's overall dominance of user data in search advertising is the problem. Addressing search neutrality is therefore approached as a remedy for a separate antitrust problem, not an antitrust problem unto itself.

[286] Daniel Crane is typical in his *Search Neutrality as an Antitrust Principle* where he emphasizes only search and the sources of queries on other sites, rather than the role of user data as a source of revenue due to search advertising. *Id*. at 4 ("even if a particular search engine were dominant as a search vehicle, search engines are not necessarily dominant when it comes to reaching websites.")

[287] Pelican and Ammori argue that search neutrality would force Google to "deal" with competitors based on a form of quasi-regulatory oversight, arguing that the Supreme Court has argued courts should not "impose a duty to deal that it cannot…reasonably supervise,' citing to *Verizon Comm. v. Trinko,* 450 U.S. at 415. Manne and Wright lean heavily on *Trinko* in their legal arguments as well. *Id.* at 236-238. However, the *Trinko* court at 450 U.S. at 412 made clear that in that telecommunications case, "the existence of a regulatory structure designed to deter and remedy anticompetitive harm" was a prime source of court reluctance to act, contrasting that with situations, which the case of Google surely fits, where "[t]here is nothing built into the regulatory scheme which performs the antitrust function," citing itself to *Silver* v. *New York Stock Exchange,* 373 U.S. 341, 358 (1963).

B. Remedy Approach 2: Strengthen Market for Valuing User Data and Privacy

The problem with just focusing on increasing Google's competitors is that more companies competing to extract user data isn't ideal from a privacy standpoint, so a better or at least complementary approach is to strengthen consumer control of their data and thereby lessen Google's -- or any company's -- market power through control of user data.[288]

In March 2012, the Federal Communication Commission (FTC) issued a report, *Protecting Consumer Privacy in an Era of Rapid Change*, that sought to outline a framework for privacy protection for both businesses to adopt voluntarily and, where necessary, policymakers could mandate as part of general consumer protection.[289] The framework includes so-called "Do Not Track" rules for web browsers such as Google's Chrome browsers to ensure user activity can be hidden from advertisers, data portability to allow users to switch easily between email and social networking services and take their data with them, and greater transparency and choice by consumers on where and how they share their data with companies. There is good evidence from Europe that privacy regulation can in fact decrease behavioral tracking of users online.[290]

The FTC framework also suggests companies be required to obtain "express content" when collecting "sensitive data," such as health and other data regulators might deem most subject to

---

[288] See an outline of various proposals and options for "privacy by design" outlined in Ira S. Rubinstein* and Nathaniel Good, *Privacy By Design: A Counterfactual Analyis Of Google And Facebook Privacy Incidents*, Working Paper Unpublished (if out by time submitted)

[289] Federal Trade Commission, *Protecting Consumer Privacy in an Era of Rapid Change: Recommendations for Businesses and Policymakers* (March 2012), http://www.ftc.gov/os/2012/03/120326privacyreport.pdf

[290] Avi Goldfarb, Catherine E. Tucker, *Privacy Regulation and Online Advertising*, MANAGEMENT SCIENCE, Vol. 57, No. 1 (January 2011), pp. 57-71 (study using 3.3. million survey responses to 9596 different online ads found 65% drop in effectiveness of banner ads in Europe under Privacy Directive compared to countries without privacy regulation)

abuse.[291] While one FTC commissioner questioned whether "opt-in" requirements would work for smaller companies, I would argue that in the case of Google, whether through regulation or as a specific antitrust remedy, a detailed and explicit "opt-in" consent should be required for any use of the data with specific express consent required for any change or new use of the data in the future. If users were reluctant to invest the time to complete the process of giving such consent, that would actually serve a positive purpose in encouraging Google to offer economic incentives for users to do so. By jumpstarting a real market for user data, not only would that reverse some of the economic distribution towards Google, it would open up more space for other companies to compete on incentives at that point of friction and thereby ease monopoly concerns. Limiting such an opt-in requirement for sharing data to Google and other similar large, dominant players would avoid the problem that general opt-in requirements might lead to users favoring large players to avoid the transaction costs of dealing with multiple, smaller players for their online needs. [292]

One other way to address the fundamental information asymmetry between Google and in its users in pricing the value of user data[293] would be to adopt proposals that would require greater transparency in how Google monetizes that data, such as regular reports on the Cost Per Click or other payments to Google based on user activities.[294] Such information, along with greater data

---

[291] Id. at viii.
[292] James Campbell,Avi Goldfarb and Catherine Tucker, *PRIVACY REGULATION AND MARKET STRUCTURE, WORKING PAPER,* DECEMBER 9, 2011 AT 2, http://ssrn.com/abstract=1729405 (arguing that general privacy rules favor larger companies)
[293] Alexander Furnas, *It's Not All About You: What Privacy Advocates Don't Get About Data Tracking on the Web*, THE ATLANTIC, Mar 15, 2012, http://bit.ly/OX68ld ("The data collectors have more information than those they are they are collecting the data from; the persuaders more power than the persuaded.")
[294] Whittington & Hoofnagel at 1367 (outline a version of such a proposal)

portability between services, might actually encourage a market where users "vote with their feet" (or, more accurately, their data) and demand either a greater share of Google's profits based on that data, switch to competing providers for a better deal, or withhold their data altogether after recognizing the pervasive use by third parties that they may not want tracking them. Any of those outcomes would lessen Google's power over user data and lessen the consumer harm from that control.

C. Remedy Approach 3: Have Google Adopt Public Interest Responsibilities to Reduce Harm to Consumer Welfare

There are good arguments that encouraging more business competitors to Google and empowering individual users to better control their data will fall short of meeting both the antitrust and broader public policy challenges due to Google's dominance. Since the consumer harm from that dominance is at much social as it is individual, mere individual privacy controls may not deal with the whole problem of the misuse of user data,[295] especially given evidence of how companies systematically frustrate even educated users' attempts to evade online tracking.[296]

---

[295] Whittington & Hoofnagel Id. ("Portability and deletion [of user data] are partial remedies because the burden of discovering ex post opportunistic behavior remains with the party least able to discover that behavior: the consumer."); Pasquale, *Beyond Innovation and Competition* at 154. ("A collective commitment to privacy is far more valuable than a private, transactional approach that all but guarantees a race to the bottom.").

[296] Chris Jay Hoofnagle, Ashkan Soltani, Nathaniel Good, Dietrich J. Wambach, and Mika D. Ayenson, *Behavioral Advertising: The Offer You Cannot Refuse*, 6 HARVARD LAW & POLICY REVIEW 273 (2012) ("We empirically demonstrate that advertisers are making it impossible to avoid online tracking." Study looks at online tracking of cookies and ways companies evade user decisions to refuse tracking)

Google accepting some forms of public interest responsibilities and regulation, potentially in the form of a consent decree as an alternative to divestiture of product assets, might open the doorway for a more fundamental restructuring of Google's guardianship of user data to reduce and ideally eliminate the pervasive consumer harms from data misuse by its advertisers. A clear first step would be to bar Google from engaging in price discrimination itself or from knowingly facilitating price discrimination where different groups are secretly offered different prices by its advertisers. As Stiglitz and Salop argue, a "rational economic planner" – in this case a government-backed consent decree -- could economize on wasteful information seeking costs by "eliminating the price dispersion" associated with price discrimination.[297]

Such a consent decree could also include other basic reforms like search neutrality, opening the way for agencies taking on responsibilities along Brache and Pascquale "Federal Search Commission" to address the range of social concerns around search platforms.[298] A requirement of search neutrality and other public accountability for Google also recognizes that search in general is already a beneficiary of free access to the wide range of content on the Internet, whose own interoperability is owed to decades of public regulation of other telecommunications common carriers. Since Google's own access to that content for free is based on a web of regulations, it is ultimately just a modification of existing Internet regulations, not a distortion of some mythical Platonic version of the market, to require that a dominant search engine like

---

[297] Salop and Stiglitz supra note 223 at 494.
[298] *Federal Search Commission? Access, Fairness and Accountability in the Law of Search*, 93 CORNELL L. REV. 1149 (2008)

Google meet civic responsibilities for its role as a de facto common carrier.[299] Any consent decree would ideally be followed by legislation refining any agency role adopted in such a consent decree.

Such an approach to Google should also bring the company under Dodd-Frank Financial Services regulation given the percentage of its advertising revenue derived from the financial services industry. It would be appropriate for the new Consumer Financial Protection Bureau (CFPB) to regularly audit practices by Google, such as facilitating predatory price discrimination and other financial scams online, which harm consumers. The CPFB is tasked not only with regulating abuses by the banking industry, but it is also required to restrain abuses by "larger nonbank participants" in the financial system.[300] Precisely because so many of these predatory offers are hidden from public view, the CFPB could play a prime role in improving data collection and better assessing the financial harm to consumers from these advertiser practices online. By closely overseeing how Google and other related online advertising players collect and share the personal data they control with financial services firms, many of the abuses that

---

[299] While Google critics reject the idea that Google should be thought of as a common carrier, they admit the public almost treats Google as a public utility whose rankings are considered objective, not self interested. Daniel Crane admits "Empirical work shows that users place a large degree of trust in Google's perceived neutrality in ranking relevance to queries, often substituting Google's algorithmic judgment of relevance for their own evaluation of search result abstracts." Crane at 7.

[300] The CPFB in developing its rules noted the source of this authority. See *Defining Larger Participants in Certain Consumer Financial Product and Service Markets,* Proposed Rule by the Consumer Financial Protection Bureau*,* Feb. 17, 2012, Footnote 3; https://www.federalregister.gov/articles/2012/02/17/2012-3775/defining-larger-participants-in-certain-consumer-financial-product-and-service-markets#footnote-3 ("Section 1024 of the Act applies to nondepository (nonbank) covered persons and expressly excludes from coverage persons described in sections 1025(a) or 1026(a) of the Act. Under section 1002(6) of the Act, a "covered person" means "(A) any person that engages in offering or providing a consumer financial product or service; and (B) any affiliate of a person described [in (A)] if such affiliate acts as a service provider to such person.")

fueled the concern that created the CPFB in the first place could be reined in before consumers fall victim to fraudulent or discriminatory offers.

VI. Conclusion: Information Asymmetry, Rising Inequality and the Failure of Markets in Online Sectors

As more of the economy moves online, the importance of data mining and asymmetry of control of information becomes ever more critical in economic markets. Addressing this change calls for reevaluating both the economic assumptions underlying much recent antitrust scholarship, especially that influenced by the Chicago School, and taking far more active regulatory action to reverse the trends undermining user privacy and increasing economic inequality due to that rising information asymmetry.

A. How the Case Against Google Challenge's the Chicago School Approach

The mobilization of academics, and think tanks defending Google may partially reflect Google's checkbook[301], but it also reflects fears by conservative economic and legal thinkers that the case may be a harbinger of how changes in the online economy are emphasizing the need for regulation more generally. Berin Szoka & Adam Thierer, both active think tank advocates for Google, made an explicit appeal to fellow conservatives in a piece for the *National Review* that "principles at stake are too important" not to rise to Google's defense, since "If consumers' ability to click over to another free search engine is deemed insufficient to discipline Google's

[301] See Greg Sterling, *Second Google-Sponsored Legal Report Argues Government Would Lose Antitrust Case*, *Search Engine Land*, May 14, 2012, http://selnd.com/IReU1G (Noting the multiple papers sponsored by Google aimed at public opinion and the legal community).

editorial discretion, how can we promote competition as an alternative to regulation more generally?"[302]

In a more academic frame, Geoffrey Manne and Joshua Wright (the latter nominated to the Federal Trade Commission in 2012), in defending Google from antitrust investigations, wrote that the simple neoclassical economics model is losing its legal force in recent academic debates:

> As a result of the proliferation of economic models that came with the rise of post-Chicago economics, the integration of game theory into industrial organization, and the increasing calls to incorporate insights from behavioral economics into antitrust and competition policy, regulators and courts now have a broad spectrum of models to choose from when analyzing an antitrust issue. [303]

They fear that the challenge to neoclassical economics inherent in an antitrust probe of Google threatens "to strip the disciplining force that economics has placed on antitrust law."[304] The worry is that if Google and the new dynamics of online markets cannot be domesticated to fit within the narrow models of the Chicago School, the implications might lead to a broader questioning of their general nostrums of "limited government" and regulatory inaction.

---

[302] Berin Szoka & Adam Thierer, *Government vs. Google*, NATIONAL REVIEW, July 19, 2010, http://bit.ly/yJWQAa.
[303] Manne & Wright. Supra note 33.
[304] Id.

B. Early Intervention in Technology Markets is Easier than Displacing Entrenched Incumbents

The complex challenge of displacing a dominant incumbent such as Google in information-related markets should serve as a lesson that that problems of network effects, technology lock-in and the speed of a dominant player taking control of a sector all call for earlier intervention in technology markets.[305] It would be better for regulators to maintain an open environment for innovation early, rather than depend on post-facto, drawn-out court fight later to displace a monopolist. The lure of monopoly profits, which Chicago School theorists think spur innovation, is far more likely to induce innovation in economically wasteful tactics to entrench that monopoly.[306]

While Google defenders have written copiously on the practical challenges of court and regulatory oversight of Google's operations,[307] particularly in requiring search neutrality, and they have also argued that Google's operations such as search results are "speech" under the First Amendment, which would means that government is largely barred from regulating

---

[305] Jonathan Zittrain, *The Un-Microsoft Un-Remedy: Law Can Prevent the Problem that It Can't Patch Later*, 31 CONN. L. REV. 1361, 1361-62 (1999) ("The technology environment moves at a lightning pace, and by the time a federal case has been made out of a problem, the problem is proven, a remedy fashioned, and appeals exhausted, the damage may already be irreversible."), See also Carl Shapiro, *Exclusivity In Network Industries*, 7 GEO. MASON L. REV. 673, 674-75 (1999).

[306] Elhauge supra note 154 at 439-440 (standard that sees monopoly profits as desirable will lead to "socially excessive (and often duplicative) investments"); see also Suzanne Scotchmer, *Innovation and Incentives* 100-03 (2004); Partha Dasgupta & Joseph Stiglitz, *Uncertainty, Industrial Structure, and the Speed of R&D*, 11 BELL J. ECON. 1, 18 (1980); Pankaj Tandon, *Rivalry and the Excessive Allocation of Resources to Research*, 14 BELL J. ECON. 152, 152, 156-57 (1983).

[307] Ammori and Pelican at 10 (Argue requiring "neutral" search algorithm would require "daily government oversight"). Of course, this ignores the reality that regulators in other industries like banking often dedicate multiple full-time staff to oversight of large financial institutions, so "daily oversight" is hardly unprecedented. See Aaron Lucchetti,*The Regulator Down the Hall,* WALL STREET JOURNAL, June 19, 2011, http://on.wsj.com/kadort.

them,[308] these alleged obstacles to constraining a monopolist involved in information-related services just adds to the argument that regulators should act earlier when simpler methods of regulation can prevent the lock-in of a dominant monopolist.

Part of the ideology of non-intervention is based on the idea that there is a wide pool of potential innovative upstarts ready to displace the incumbents, but the reality is the technology market is becoming more dominated by incumbents, not less. In fact, small startup companies are increasingly eyeing acquisition by these existing dominant companies as the preferred way to "cash out" compared to initial public offerings (IPOs) to remain as a stand-alone competitor in any particular market. Along this line, researchers Xiaohui Gao, Jay R. Ritter and, Zhongyan Zhu have noted that IPOs have dropped from an average of 311 IPOs per year during 1980-2000 to only 102 IPOs per year during 2001-2009 and they ascribe the decline to changes in the "economies of scope" in the marketplace, including a "winner take all" dominance of many markets. This, they argue has reduced the profitability of small companies, which means they do better selling to an established firm than trying to survive as an independent company.[309]

Given that the market is producing ever fewer likely challengers in the marketplace to keep dominant firms like Google accountable in the marketplace, it become even more incumbent on

---

[308] See Eugene Volokh, *Google: First Amendment Protection For Search Engine Search Results,* April 20, 2012, http://bit.ly/PtjwyA. However, since the focus on search neutrality is not protected opinion, but rather preventing consumer confusion over the perceived objectivity of Google's linking order and its commercial operations, this is far less likely to be considered commercial "speech" protected by the First Amendment. See Pasquale, *Beyond Innovation and Competition* at 156-160.

[309] Xiaohui Gao, Jay R. Ritter and, Zhongyan Zhu. *Where Have All the IPOs Gone?* (Working Paper); http://www.hbs.edu/units/finance/pdf/Where%20Have_April_3_2012.pdf. Similarly, the Progressive Policy Institute in a recent paper highlighted the fact that most new startups are taking the path of acquisition by a larger company over the IPO route. Michael Mandel and Diana G. Carew. *Innovation by Acquisiton: New Dynamics of High-Tech Competition.* Progressive Policy Institute. November 2011; http://bit.ly/vWEtFY

regulators and courts to take action earlier in technology markets before monopolies like Google's arise.

C. How Government Intervention can Address Rising Economic Inequality

The standard worry about antitrust (or any other government regulation) is that it will undermine innovation, yet centralized power in a sector is just as likely to undermine innovation by the leader and discourage innovation by potential entrants to a sector. If government regulations can restore a competitive threat to Google by existing players or new entrants and better protect user privacy, that will in fact open the online market to innovations that compete based on better serving user privacy and consumer economic interests, rather than undermining them.

With an eye on Google, such pressure might translate into a greater focus on sharing the financial bounty of user information with those users, serving both equity and competition. The less companies like Google are able to use privacy violations for anti-competitive purposes, the better guardian of legitimate privacy concerns it will become. At least one writer has compared the market failure of providing privacy and data protection to that of poor user information on food and safety a hundred years ago, explicitly highlighting the way equity and consumer safety concerns of crusaders like Upton Sinclair then should be the precedent for action today.[310]

What the case of Google highlights most of all is the way the data mining of individual privacy is fundamentally reshaping markets by transferring so much knowledge about user interests, behavior and desires into a few corporate hands. Such information asymmetry is easily

---

[310] Benjamin Sachs, *Consumerism and Information Privacy: How Upton Sinclair Can Again Save Us from Ourselves*, 95 VA. L. REV. 205 (Mar. 2009) (suggesting a strict liability standard for companies experiencing data breaches to force them to tighten security for users).

converted into economic inequality when one side of every transaction has so much more knowledge about the other during bargaining. The last four decades have seen a steady increase in economic inequality, which is only partially explained by standard explanations centered on the rise of economic returns to education, globalized trade and political changes. The increasing information asymmetry in consumer markets, driven by data mining and facilitated by online services such as Google, may be an additional significant cause of this overall increase in economic inequality. Internet visionary Jaron Lanier sums up the change as "wealth is measured by how close you are to one of the big servers" and Google sits on one of the largest network of servers in the world acting as "private spying agencies" on behalf of its advertising clients.[311]

Government authorities using antitrust and other regulatory tools can stem at least part of this trend by restoring a degree of control by individuals over what personal data is shared online and the financial terms on which that data is shared. This in turn can eliminate some of the information-based inequality in the modern marketplace that is driving the overall economic inequality. If nothing else, a broad antitrust investigation of Google can be a chance for a much broader public debate on the abuses of data mining online and how to make all markets work more fairly for average working families.

---

[311] Lanier interview, Id.