state attack?

UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION
WASHINGTON, D.C. 20580

Bureau of Competition

Project Code: DXI

MEMORANDUM

TO: Commission

FROM:

DATE: August 8, 2012

SUBJECT: Google Inc.
              File No. 111-0163[1]

RECOMMENDATION: That the Commission Issue the Attached Complaint

natural and probable effect of Google's conduct is to diminish the incentives of vertical

websites to invest in, and to develop, new and innovative content. In the alternative,

Google's conduct may be condemned as a stand-alone violation of Section 5. Google has

presented no efficiency justification for its conduct.

Third, Staff has investigated whether Google has employed anticompetitive

contractual restrictions on the automated cross-management of advertising campaigns.

Google's main rival (Microsoft) has alleged that Google is denying Microsoft critical scale

by employing these restrictions, and thus impairing Microsoft's ability to compete effectively

in the markets for general search and search advertising. We conclude that these restrictions

should be condemned under Section 2 because they limit the ability of advertisers to make

use of their own data, and as such, have reduced innovation and increased transaction costs

among advertisers and third-party businesses, and also degraded the quality of Google's

rivals in search and search advertising. Google's proffered efficiency justification for these

restrictions appears to be pretextual.

Fourth, Staff has investigated whether Google has entered into anticompetitive,

exclusionary agreements with websites for syndicated search and search advertising services.

We conclude that Google's agreements should be condemned under Section 2 because they

foreclose some portion of the market, and, although the agreements result in only modest

anticompetitive effects on publishers, the impact of the agreements in denying scale to

competitors is both competitively significant to its main rival (Microsoft) today, as well as a

significant barrier to entry for potential entrants in the longer term. While Google presents

efficiency justifications for these agreements, on balance, Staff finds them to be non-

persuasive.

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B.   EUROPEAN COMMISSION INVESTIGATION

The European Commission ("EC") has been conducting a parallel investigation of Google since November 2010. On May 21, 2012, Commissioner Joaquin Almunia issued Google a letter, signaling the EC's possible intent to issue a Statement of Objections ("SO") against Google for abuse of dominance in violation of Article 102 of the EC Treaty. The letter set out the EC's concern in four areas: (1) Google's "favourable treatment of its own vertical search services as compared to those of its competitors in its natural search results"; (2) Google's "practice of copying third party content" to supplement its own vertical offerings; (3) Google's "exclusivity agreements with publishers for the provision of search advertising intermediation services"; and (4) Google's "restrictions with regard to the portability and cross-platform management of online advertising campaigns."[4]

In his letter, Commissioner Almunia offered Google the opportunity to resolve the concerns prior to the issuance of an SO by coming forward "with a written description of possible solutions" to the EC's concerns.[5]

On June 30, 2012, Google submitted a settlement proposal to the EC. Although Google denied any infringement of European Union ("EU") competition law, Google proposed to enter into several "commitments," designed to address the EC's stated concerns.[6]

FTC staff has coordinated closely with EC staff throughout the course of our parallel investigations. Staff has received waivers from Google, Microsoft, Yahoo!, and a handful of other parties to discuss and exchange information with the EC. Staff has had regular telephone calls with EC staff, where we have updated one another on theories and evidence. We have also exchanged documents of mutual interest.

Google to tort liability.[13] The *Kinderstart* court also dismissed the plaintiff's complaint, rejecting the claim that Google's search results were an essential facility for vertical websites, because Kinderstart had not been eliminated from the downstream market and continued to get high rankings from other search engines.[14]

The AdWords cases address a common fact pattern, but are decided on alternate grounds. Plaintiffs in these cases argued that Google increased the minimum bids for the keywords the website had purchased, which made those keywords effectively unavailable, thus depriving the plaintiff website of traffic. The complaint in *TradeComet.com, LLC v. Google, Inc.*[15] was dismissed for improper venue, while the allegations in *Google, Inc. v. myTriggers.com, Inc.*[16] were dismissed on grounds that they failed to describe harm to competition as a whole. Both cases were dismissed with little discussion of the merits.

In *Person v. Google, Inc.*,[17] Judge Fogel of the Northern District of California criticized the plaintiff's market definition, finding no basis for distinguishing the alleged "search advertising market" from the larger market for Internet advertising.[18] The Ninth Circuit affirmed the conclusion that the plaintiff failed to plead facts sufficient to raise the allegations in its complaint beyond a speculative level, but did not address market definition.[19]

## II.	STATEMENT OF FACTS

### A.	THE PARTIES

#### 1.	Google

Google is an Internet search technology company, founded in 1998 and headquartered in Mountain View, California. Google's products and services include a general "horizontal" search engine, as well as numerous integrated "vertical" websites that focus on specific

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3. Major Vertical Complainants

Staff has met with, interviewed, and subpoenaed numerous vertical websites offering shopping, travel, local, and financial services. We identify here some of the main complainants. In general, these companies complain that Google's practice of preferencing its own vertical results over the complainants' websites on Google's search page has negatively impacted the complainants' ability to compete for users and advertisers.

a. Amazon

Amazon is the world's largest online retailer, and also produces consumer electronics, notably the Amazon Kindle e-book reader and the Kindle Fire tablet. Amazon's product search feature competes with Google Product Search.

b. eBay

eBay operates an online auction and shopping website in which people and businesses buy and sell a broad variety of goods and services worldwide. eBay has expanded from its original "set-time" auction format to include "Buy It Now" standard shopping, and a variety of other services. eBay's product search feature competes with Google Product Search.

c. NexTag

NexTag is a shopping comparison website in the U.S. that competes with Google Product Search.

d. Foundem

Foundem is a shopping comparison website in the United Kingdom that competes with Google Product Search. We understand that Foundem was the first vertical website to publicly accuse Google of preferencing its own vertical content over that of competitors on

recently introduced social networking site, Google Plus. Facebook has complained, among other things, that Google's preferencing of Google Plus results over Facebook results on Google's search page is negatively impacting its ability to compete for users.

B.   INDUSTRY BACKGROUND

1.   General Search

The Internet is a vast, largely unorganized collection of constantly changing information. If the Internet can be roughly analogized to a huge and highly dynamic library, then algorithmic search engines are the card catalog.

Unlike a traditional library, the Internet is too large and changes too rapidly for traditional cataloging.[32] Instead, search engines (like Google) deploy computer programs that constantly "crawl" the web, building and updating automated indexes of web content. Similarly, the process of finding relevant information inside these web indexes is automated. Sophisticated algorithms evaluate the content of the end user's request for information to determine which parts of the web index may contain relevant responses. The identified potential responses are then ranked by additional algorithms based on the predicted likelihood of their relevance, and displayed to the end user in response to his or her query. Critically, all of this complex activity occurs rapidly and automatically, without any direct human intervention.

As users search for information on the Internet, they necessarily provide the search engine with valuable information – the precise topic users are interested in at that moment. Although a user does not pay for the web search service, the user's focused interest – or intent – is very valuable to advertisers, because users are effectively identifying themselves as potential customers through the content of their queries. For example, a business selling

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advertising.[36] The growth of the Internet has created entirely new business models that can take advantage of ways, unique to the Internet, to identify and reach potential customers with advertising.[37] Among the reasons advertisers have shifted budget online is the high degree of tracking possible and the quantifiable, superior return on investment.[38]

Online advertising is primarily made up of display and search advertising, although some other types of advertising (*e.g.*, contextual, re-targeted display, and social media advertising) also have some presence. Display advertising typically consists of banner ads containing graphics and other rich media appearing on white space on a web page. Search advertising consists of text ads (displayed on the right-hand side of the search results page, at the top of the page above the search results, and below the search results) matched to specific keyword queries entered into the search engine by the user.

Search advertising makes up the bulk of online advertiser spend, primarily because advertisers believe that search advertising provides unprecedented precision in identifying potential customers, measurability, and the highest return on investment.[39] Simply put, "it is the most effective marketing ever."[40] Search advertising is highly valued by advertisers because they learn crucial information about the user from the query alone: they learn that the user is interested in a particular subject, *right now*.[41] Thus, search advertising is a highly effective method of reaching users who are interested in learning about or purchasing products. Search advertising is often called "direct response" advertising, as it "is intended to elicit a response from a consumer, such as the purchase of a product or signing up for a service."[42]

With pure display advertising, all the advertiser knows about the user is that he or she is viewing a particular web page (similar to the information an advertiser may have about a

the user leave to go to a dedicated search website like Google or Bing; the search provider

picks up incremental search volume, as some users will not bother to run a search if they

have to leave the publisher's website to do it; and, most importantly, the resulting search

traffic can be monetized through search advertising in the same way as a search run on

Google or Bing.

The process works very similarly to a web search conducted on Google. Google

receives queries from the third-party website, evaluates them against a subset of its web

index, and then delivers web search results to the user on the third-party publisher's

website.[49] As with web search on Google.com, the consumer pays for none of these services.

Instead, publishers pay Google for syndicated search either on a cost-per-user-query basis

(for example, $.95 per 1,000 queries), or by accepting search advertisements from Google

and splitting the revenues from the search advertisements run on the publisher's website.

The resulting revenue sharing arrangement is often referred to as the "traffic acquisition cost"

(or "TAC").

Publishers are generally able to select the web search and search advertisement

syndication services separately or together. Thus, publishers that do not wish to offer web

search generally (or Google's web search, specifically) can – and do – participate in

Google's AdSense program to receive search advertisements without the corresponding web

search functionality.[50]

4.   Mobile Search[51]

In recent years, the focus of search (and related advertising) has begun shifting from

the traditional desktop model to the rapidly emerging – and lucrative – frontier of mobile (or

"smartphone") devices. At the forefront of this shift is Google's mobile operating system,

In addition, click data (the website links on which a user actually clicks) is important for evaluating the quality of the search results page. As Google's former chief of search quality Udi Manber testified:

> The ranking itself is affected by the click data. If we discover that, for a particular query, hypothetically, 80 percent of people click on Result No. 2 and only 10 percent click on Result No. 1, after a while we figure out, well, probably Result 2 is the one people want. So we'll switch it.[57]

Testimony from Sergey Brin and Eric Schmidt confirms that click data is important for many purposes, including, most importantly, providing "feedback" on whether Google's search algorithms are offering its users high quality results.[58]

Finally, search providers run experiments on large volumes of users. Search engines conduct experiments on everything from ranking of search results to user interface and design decisions.[59] As Larry Page and Sergey Brin stated in their 2005 annual letter to shareholders:

> Our teams are more productive once they get real users and feedback. We have learned that the best way to make something great is to actually launch it to the public. That's why we have the Google Labs and 'beta' labels – these are our experiments.[60]

Multiple experiments are conducted simultaneously.[61] The more search users there are at any given time, the more experiments can be run, the faster they can be completed, and the more improvements that can be made to the search algorithms.[62] According to Microsoft chief economist (and Harvard professor) Susan Athey, Microsoft's search quality team is greatly hampered by having insufficient search volume to conduct experiments.[63]

With improved search quality, particularly for "tail" queries, Bing asserts that it will be better positioned to compete with Google for users (and, thus, for advertisers), and so to

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and – importantly – also serves to attract more advertisers, that, generally speaking, prefer their advertisements to reach as broad an audience as possible.[74]

In sum, Bing asserts that a larger volume of advertisements – and the improved coverage, quality, conversion rates, and revenues that come from such an increased volume – will allow it to better compete with Google for both advertisers and website publishers, and so to constrain the exercise by Google of monopoly power.

3. The Scale Curve

Google acknowledges the importance of scale in the abstract. Google documents are replete with references to the "virtuous cycle" among users, advertisers, and publishers;[75] and testimony from Google executives confirms the continuing viability of the "cycle."[76] However, Google argues that, while scale matters, it only matters up to a point, beyond which there are substantially "diminishing returns" to increasing volumes of both queries and advertisements.[77] For example, Sergey Brin testified that a "rough rule of thumb" might be, as query volume doubles, a search engine might expect to see a one percent increase in quality.[78]

Google argues that Bing's query and advertiser volume have passed the point at which scale should – or would – matter significantly to Microsoft, and that any volume gains made by Bing would yield minimal improvements in either Bing's search quality or its monetization ability.[79] Microsoft does not dispute the notion that there are generally diminishing returns to scale.[80] The main bone of contention between Google and Microsoft is *where on this scale curve* Microsoft currently operates. This is an important question, but one which evades easy answers. This is, in part, because neither party can identify a fixed number of queries or ads that constitutes the "minimum efficient" point of operation.

platform, it calculated that Bing would receive a 20 percent boost in revenue per search ("RPS") on the basis of Yahoo!'s additional volume.[89] Although Bing's RPS (and consequently, RPM) has improved with the addition of Yahoo! query and ads volume, it has not improved as substantially as Microsoft initially forecast.[90]

In this investigation, the question of how and why scale matters has taken a prominent position in several allegations advanced by complainants: specifically, whether the conduct under review denies Google's main competitor – Microsoft – the scale it needs to successfully constrain Google's monopoly over search and search advertising. These allegations are discussed in detail in the following section.

D. GOOGLE'S SUSPECT CONDUCT

Staff has conducted a comprehensive investigation into several areas of alleged anticompetitive conduct. Below, we lay out four of the five main areas of Staff's investigation.[91]

1. Google's Preferencing of Google Vertical Properties Within Its Search Engine Results Page ("SERP")

Staff has investigated whether Google is unlawfully preferencing its own vertical properties, while demoting rival vertical properties, in order to maintain, preserve, or enhance Google's monopoly power in the markets for search and search advertising. Complainants allege that Google's conduct is anticompetitive because it forecloses alternative search platforms that might operate to constrain Google's dominance in search and search advertising. Although it is a close call, we do not recommend that the Commission issue a complaint against Google for this conduct.

search capabilities within specific commercial categories, and thus might cause users to shift their searches in those categories away from Google's general web search platform. As users moved to vertical search websites, those websites could, in turn, become more attractive vehicles for advertisers, thus resulting in potentially significant revenue losses to Google. In short:

> Vertical search is of tremendous strategic importance to Google. Otherwise the risk is that Google is the go-to place for finding information only in the cases where there is sufficiently low monetization potential that no niche vertical search competitor has filled the space with a better alternative.[101]

A 2008 presentation, entitled "Online Advertising Challenges: Rise of the Aggregators," further highlights the problems faced by Google with regard to the leading UK-based finance vertical website, MoneySupermarket:

> Issue 1. Consumers migrating to MoneySupermarket. Driver: General search engines not solving consumer queries as well as specialized vertical search. . . . Consequence: Increasing proportion of visitors going directly to MoneySupermarket. . . . Google Implication: Loss of query volumes.
>
> Issue 2: MoneySupermarket has better advertiser proposition. Driver: MoneySupermarket offers cheaper, lower risk (CPA-based) leads to advertisers. Google Implication: Advertiser pull: Direct advertisers switch spend to MoneySupermarket/other channels.[102]

Partly in response to this new competitive threat – the "rise of aggregators" – Google decided to hone in on certain "key" vertical search areas (shopping, local, finance, and travel) and invest in developing existing – or creating new – vertical properties.[103] In certain areas where Google already had existing vertical properties, such as shopping and local,[104] Google saw a critical need to invest further and take measures to increase user traffic to those properties.[105] In potentially lucrative areas where strong verticals already existed and where

and against its natural search results, because the web index and other indices all had their own ranking algorithms and scores.[114] Google referred to the difficulty of comparing these ranking scores as an "apples to oranges" problem.[115] Google did, however, frequently compare the quality of its vertical results to that of its competitors using other scoring methods.[116]

The verticals were initially placed in one of three locations: if Google deemed the vertical content to be highly relevant, it would go into position one, above the natural search results; if Google deemed the content somewhat relevant, it would go into position four (or midway down the first page of natural search results); and if Google deemed the content only marginally relevant, it would go into position 10 (or at the bottom of the first page of natural search results).[117] In 2012, Google claims that it changed its algorithms to display Universal Search results in any position on the SERP, depending on the same initial relevancy screen.[118]

A screen shot showing an example of a Universal Search result is provided on the next page.

maximize the percentage of queries for which it displayed Universal Search results.[119]

Evidence shows that Google sought to increase such "triggering" of Universal Search results

not only to provide users with the "right" answer to their queries, but also to drive traffic to

Google properties.[120] Google recognized that the frequent display of its vertical properties on

the SERP was necessary to drive traffic to its properties, and thus, grow user share in highly

commercial areas such as shopping and local.[121] Google continued to trigger Universal

Search results frequently – and prominently – even when it determined that showing such

results in the top position would "cannibalize" revenue from the top ads, as the company was

willing to lose short-term revenue with the long-term goal of retaining and growing vertical

search query share.[122]

Second, Google embellished its Universal Search results with photos and other eye-

catching interfaces, recognizing that these design choices would help steer users to Google's

vertical properties.[123] Third party studies show the substantial difference in traffic with

prominent, graphical user interfaces.[124] These "rich" user interfaces are not available to

competing vertical websites.[125] Moreover, Google's Universal Search results often were not

labeled as being provided by Google affiliated services, but were integrated directly into the

search results.

Third, Google displayed its Universal Search results at or near the top of the SERP.[126]

This desirable positioning of Google's Universal Search results pushes all other web search

results down, which significantly decreases click-through to the websites displayed in

Google's natural search results.[127] Google displays its Universal Search results in these

prominent positions without comparing the quality of Google's vertical content to that of its

vertical competitors,[128] or evaluating whether users would prefer to see Google's content or

Although Google tracks user click-through rates (and relies on such click-through data to improve its web search results in a number of ways, *see supra* p. 14), Google has not relied on click-through data to rank its Universal Search results against other web search results.[134] According to Marissa Mayer, Google did not use click-through rates to determine the position of the Universal Search properties because it would take too long to move up on the SERP on the basis of user click-through rate.[135]

Rather than comparing its content with that of competitors, Google used the occurrence of competing vertical websites in its natural search results to automatically boost the ranking of its own vertical properties above that of competitors.[136] For example, where Google's algorithms deemed a comparison shopping website relevant to a user's query, Google automatically returned Google Product Search – above any rival comparison shopping websites.[137] Similarly, when Google's algorithms deemed local websites, such as Yelp or CitySearch, relevant to a user's query, Google automatically returned Google Local at the top of the SERP.[138]

Google also dedicates space at the top of its SERP to its social network vertical, Google Plus. Google provides links to Google Plus pages that might be relevant to a query on the right-hand side of the SERP, and "auto suggests" Google Plus pages for user queries, regardless of which social media sites are the most relevant, comprehensive, or have the freshest results in response to any given user query.[139] Google also displays prominent links to Google Plus pages when users make navigational queries to many companies' websites. For example, in response to the navigational query "Dell" a user is presented with the SERP shown on the next page.

(offers),[145] or "Sponsored" (the new paid Google Shopping ads),[146] and other times provided no label (flight search).[147] In May 2012, Google announced that its shopping property, Google Product Search – which will now be known as Google Shopping – will be transitioned to a paid listing model in the fall of 2012.[148] Under the paid model, merchants will pay Google directly to appear in Google Shopping, and Google will no longer include product listings for merchants who do not pay for placement.[149]

Google's dedicated ads do not compete with other ads through Google's AdWords auction for placement on Google's SERP. Instead, they enjoy automatic placement in the most effective advertising places on the SERP, usually above the natural search results.[150] Google also does not compare the quality of its own ads to the quality of competitors' ads that provide the same vertical service. For example, although it displays its flight search above any natural search results for flight-booking sites, Google does not provide the most flight options for travelers.[151] As with Google's Universal Search results, Google's rich user interfaces for its ads-based vertical offerings, which are unavailable to competitors, lead to higher clicks for Google's ads.[152]

e. Google's Demotion of Competing Vertical Websites

While Google embarked on a multi-year strategy of developing and showcasing its own vertical properties, Google simultaneously adopted a strategy of demoting, or refusing to display, links to certain vertical websites in highly commercial categories. According to Google, the company has targeted for demotion vertical websites that have "little or no original content," or that contain "duplicative" content.[153]

Similarly, Google has identified comparison shopping websites as undesirable to users, and has developed several algorithms to demote these websites on its SERP. Through

algorithms that demote sites that "scrape a large percentage of their content from other sites."[163] These algorithms are not applied to Google vertical sites.

Google's vertical properties would rank poorly if they were crawled and indexed by Google because they have never been "engineered" for ranking by the search engine.[164] Unlike Google's vertical competitors, who expend considerable resources on optimizing their websites in order to rank highly on Google's SERP, Google does not expend the time and resources to optimize its own vertical properties; it simply places them on the SERP.

f. Effects of Google's SERP Changes on Vertical Rivals

Vertical websites, such as comparison shopping and local websites, are heavily dependent on Google's web search results to reach users.[165] Thus, Google is in the unique position of being able to "make or break any web-based business."[166]

Google's prominent placement and display of its Universal Search properties, combined with the demotion of certain vertical competitors in Google's natural search results, has resulted in significant loss of traffic to many competing vertical websites. Data from various comparison shopping and other competing websites shows drops in traffic that correlate to changes implemented by Google to its SERP.[167] Google's internal data confirms the impact, showing that Google anticipated significant traffic loss to certain categories of vertical websites when it implemented many of the algorithmic changes described above.[168]

While Google's changes to its SERP led to a significant decrease in traffic for the websites of many vertical competitors, Google's prominent showcasing of its vertical properties led to gains in user share for its own properties.[169] For example, Google's inclusion of Google Product Search as a Universal Search result took Google Product Search from a rank of seventh in page views in July 2007 to the number one rank by July 2008.[170]

Google considered several options for obtaining information for display on its own vertical properties: developing its own content; obtaining licenses from other content creators; and obtaining content by crawling the world wide web (in the same way that Google crawls the world wide web for its general web index). Ultimately, Google settled on a combination of all three of these alternatives.

Much of Google's vertical content is currently obtained through feeds from various websites, pursuant to free licenses from those sites for Google to use that data. Google's standard license agreement allows Google to use third parties' data feeds for any purpose.[178] Many website publishers, such as Shopzilla, have agreed to these terms because they believe they do not have the leverage to negotiate with Google regarding the terms of their licenses, because they want the benefits of appearing in Google's vertical.[179]

In addition to the feeds it receives, Google's use of crawled content is pervasive. Indeed, the content of any website that Google crawls for indexing purposes (for Google's web search) may be used by Google for any of its vertical search properties in a number of different ways. For example, Google has often included "snippets" (or excerpts) of user reviews from local or shopping properties on its own vertical properties. Google also uses the rankings of various businesses or products to aid its own determination regarding the order in which those businesses or products should be ranked within its own vertical properties. For example, Google calculates the popularity of a product for the purpose of ranking it in Google Product Search based on three factors: (1) Amazon Sales Rank; (2) the number of merchants offering the product for sale; and (3) the quality of those merchants.[180] Because Amazon did not provide competitively sensitive information such as Amazon Sales

For Google Local, Google needed photos, addresses, hours, and reviews. Google originally obtained this content through licenses with these websites. In late 2006, Google decided that it wanted more control over its local content.[186] Google recognized that review content, in particular, was "critical to winning in local search," but that Google had an "unhealthy dependency" on Yelp for much of its review content.[187] Google feared that its heavy reliance on Yelp content, along with Yelp's success in certain categories and geographies, could lead Yelp and other local information websites to siphon users' local queries away from Google.[188]

In order to acquire direct access to a large storehouse of user content, managers working on Google Local attempted to convince Google executives to purchase Yelp, but they were rebuffed.[189] Instead, Google decided to launch a redesigned version of Google Maps, in which users could submit reviews directly to Google.[190]

Google understood that the existence of a critical mass of user reviews (like those users had already submitted to websites like Yelp and Trip Advisor) was important in attracting additional user reviews.[191] Google also knew that its partners – such as Yelp and Trip Advisor – would be unhappy about Google's use of their content to collect Google's own content.[192] Indeed, upon learning of Google's intent to collect its own reviews and to develop this now-directly competing property, Yelp discontinued its data feed to Google, and asked Google to remove all Yelp content that Google featured on Google Local.[193]

Initially, Google agreed to remove – and did remove – Yelp's content. However, after offering its own review site for more than two years, Google recognized that it had failed to develop a community of users – and thus, the critical mass of user reviews – that it needed to sustain its local product.[194] In an attempt to gain quick access to a large storehouse

included in Google Places or not have their property appear in Google web search results at all.[203] Critically, for Google, this meant that it could now force local websites – that needed access to Google's web search to reach users – to accede to Google's use of the large storehouse of reviews that Google's rivals had built in order to develop its own user base.[204]

Indeed, Google almost simultaneously launched a new reviews-collection product – Hotpot – to (again) try to solicit original user reviews, this time seeding it with reviews from third-party websites with no attribution.[205] Yelp, TripAdvisor, and CitySearch all complained to Google.[206] All of these parties sought removal of their user review content from Google Places/Hotpot, as well as the removal of their reviews from Google's aggregated review count on the main SERP.[207] This time, however, Google told each company that if Yelp, TripAdvisor, and CitySearch wanted to have their content removed from Google Places/Hotpot, they would have to exclude their websites from being crawled by Google altogether, which meant complete exclusion from Google's SERP.[208] This was not technically necessary – it was just a policy decision by Google.[209]

Like many other vertical websites, Yelp, TripAdvisor, and Citysearch relied heavily on Google's web search results to reach users, and thus could not risk removal from Google's web search index.[210] Instead, they each attempted to negotiate with Google, seeking removal from Google Local (without simultaneous removal from Google's web search results), or at least a user interface that provided sufficient attribution of their content.[211]

Facing what seemed to be an all-or-nothing choice, Yelp also began widely publicizing Google's refusal to remove Yelp content from Google Local (including filing a complaint with the Commission), and ultimately, in July 2011, sent Google a Cease and Desist letter.[212] In its letter, Yelp clearly indicated that it expected to remain in Google web

Google had already collected sufficient reviews by bootstrapping its review collection on the display of other websites' reviews. It no longer needed to display third-party reviews, particularly while under investigation for this precise conduct.

b. The "Shopping" Story

Much of Google Product Search content is obtained through feeds from various websites with corresponding license agreements, from crawls, and to a lesser extent, by generating its own content.[220] As Google sought to develop a stronger shopping offering beginning around 2006, Google recognized the need to improve its data in several areas.

Google decided to supplement its feeds with additional merchant reviews, product reviews, and product listings it could get from crawls, particularly from Amazon.[221] Amazon had a license agreement with Google starting in June 2009. Pursuant to this agreement, Amazon provided Google with only a limited data feed of information about its products, and sought to limit how Google used the data, because Amazon has always feared that Google would use Amazon's comprehensive product catalogue and original review content to develop a strong competitor in shopping.[222]

Shortly thereafter, claiming that Amazon's data feed to Google Product Shopping was too limited, Google decided not to rely on the feed, but instead, crawled Amazon's website to scrape the much more detailed product information – including star ratings and user reviews.[223] Google also relied on Amazon's web pages that indicate the ranking of products within Amazon. Google used – and continues to use – this information to determine the order in which to rank products within Google Product Search.

In August 2010, around the same time that Yelp requested that Google remove Yelp's content from Google Local, Amazon requested that Google stop using Amazon's crawled

comprehensive.[231] Google also attempted to pay a company to generate a new hierarchy, but this was taking a long time, and also was not sufficiently comprehensive.[232]

Ultimately, Google decided to crawl Amazon's product web pages, read embedded information on Amazon's pages indicating Amazon's classification system, and to use that information to create Google's classification.[233] This was critical to Google because Froogle had failed partly due to Google's inability to accurately classify the millions of products from feeds and crawls, and to return correct search results.[234] Amazon considers its classification system an important competitive advantage that it spends tremendous resources to develop, and does not approve of Google's use of Amazon's system to develop its own.[235]

With Google's migration to a paid shopping model,[236] Google has stated that it will only use reviews from companies that provide licensed feeds of their content. It appears, however, that Google may continue to crawl, and rely upon, rivals' product classifications to generate its own, and on rivals' rankings to determine rankings of products within Google Shopping.

c.   Effects of Google's "Scraping" on Vertical Rivals

Because Google scraped content from these vertical websites over an extended period of time, it is difficult to point to declines in traffic that are specifically attributable to Google's conduct. However, the natural and probable effect of Google's conduct is to diminish the incentives of companies like Yelp, TripAdvisor, CitySearch, and Amazon to invest in, and to develop, new and innovative content, as the companies cannot fully capture the benefits of their innovations.[237]

Initially, Google offered advertisers two ways to access the AdWords system and manage their campaigns: the AdWords Front End and the AdWords Editor. The Front End is a web page that advertisers could log into and manage their campaigns. The Editor is a program advertisers can download. It allows advertisers to download campaign information from Google, make bulk changes offline, and then upload the changes back into AdWords. These two access points eventually proved to be insufficient because large advertisers and agencies were taxing the existing system. They would access the system and make so many changes to their campaigns that the system's capacity would be exceeded, causing it to be unavailable temporarily or even to crash.[240]

In response, in 2004, Google introduced a third method for accessing the AdWords system: the AdWords API. The API (application programming interface) allows advertisers and agencies direct programmatic access to the AdWords platform. The API contains a set of specifications that allows advertisers and agencies to develop their own software programs to interact with the API and allow them to set up and optimize their ad campaigns. APIs are now an essential feature of campaign management for advertisers and agencies managing multiple accounts.[241] All three major search advertising platforms (Google, Microsoft, and Yahoo!)[242] have APIs that allow this direct, automated interaction with ad platform features.

Google anticipated that the API would have several benefits, including: (1) reduced Google operating expenses (Google personnel having to provide manual processing and troubleshooting for large bulk sheets); (2) increased advertiser spend due to reduced advertiser operating costs; and (3) rapid development of advertiser and third party tools supporting AdWords campaigns [243]

Amazon and eBay, can develop – and have developed – their own multi-homing tools that simultaneously manage campaigns across platforms.[248] The advertisers affected are those whose campaign volumes are large enough to benefit from using the AdWords API, but too small to justify devoting the necessary resources to develop in-house the software and expertise to manage multiple search network ad campaigns.

c. **Effects of the Restrictive Conditions**

i. **Effects on Advertisers and Search Engine Marketers ("SEMs")[249]**

As noted above, the immediate effect of the restrictive conditions has been to prevent the development and marketing of tools that would allow advertisers to manage ad campaigns on multiple search advertising networks simultaneously. Google routinely audits its API clients to determine compliance with the restrictive conditions. On several occasions, Google has required SEMs to remove functionality that would facilitate simultaneous management of search advertising campaigns.[250] Other SEMs have stated that, but for the restrictive conditions, they too would develop and offer such functionality.[251] They would also be freer to innovate the tools they offer based on their clients' demands.[252] Google anticipated that the restrictive conditions would eliminate SEM incentives to innovate.[253]

Many advertisers have said they would be interested in buying a tool that had multi-homing functionality.[254] Such functionality would be attractive to advertisers because it would reduce the costs of managing multiple ad campaigns, giving advertisers access to additional advertising opportunities on multiple search advertising networks with minimal additional investment of time. The advertisers who would benefit from such a tool appear to be the medium-sized advertisers, whose advertising budgets are too small to justify hiring a

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ii.   Effects on Competitors

It seems likely that the removal of Google's API restrictions would increase the amount of advertising spend directed towards search networks that compete with Google. The rationale is that many advertisers would be willing to advertise on Bing or Yahoo! if they could do so without incurring significant transaction costs. As noted above, optimizing a search advertising campaign is time-intensive. It may not be worthwhile investing such efforts for additional, smaller search networks. Microsoft contends that if management tools that allowed advertisers to optimize their campaigns on multiple search networks simultaneously were available, many more advertisers would choose to advertise on the networks that compete with Google.

Data on advertiser "multi-homing" may show some of the effects of the restrictive conditions. "Multi-homing" refers to advertisers that advertise on multiple search networks. The data indicate that nearly all of the largest advertisers multi-home, but the percentage of multi-homing declines as the advertisers' spend decreases. According to a 2011 study by Microsoft, which divided the advertiser base into deciles based on total number of clicks (such that the largest nine advertisers comprise a decile – or 10 percent of total clicks – unto themselves), the distribution of multi-homing was as follows:[262]

Decile	Advertisers (from smallest to largest)	% multi-homing[263]
1	208980	31.8
2	18346	64.8
3	4876	83.0
4	1736	90.8

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basis, the same advertisers optimize their Microsoft campaigns far less frequently, on a weekly or bi-weekly basis.[266]

Staff conducted a series of interviews of randomly selected small advertisers to gather their anecdotal perspective on these issues. These interviews strongly tend to support the thesis that many small advertisers would extend their advertising to other search networks if they had access to a cross-platform optimization tool. Nearly all small advertisers interviewed showed interest in such a tool.[267] They believed such a cross-platform optimization tool would be central to addressing their core constraints: time, sophistication, and money.[268] When these transaction costs are coupled with Bing's limited volume, some small advertisers refrain from using Bing altogether.[269] Furthermore, even those that do use Bing may not be fully optimizing their Bing campaigns because the benefits of Bing's limited user volume may not outweigh the transaction costs associated with full optimization.[270]

d. Internal Google Discussions Regarding the Restrictions

Internal Google documents support the notion that the removal of the restrictions would increase advertiser spend on competing networks. In 2007, when considering whether to offer a cross-network management tool, an API product manager wrote (and director of product management Richard Holden endorsed):

> If we offer cross-network SEM in [Europe], we will give a significant boost to our competitors. Most advertisers that I have talked to in [Europe] don't bother running campaigns on [Microsoft] or Yahoo because the additional overhead needed to manage these other networks outweighs the small amount of additional traffic. *For this reason, [Microsoft] and Yahoo still have a fraction of the advertisers that we have in [Europe], and they still have lower average CPAs [cost per acquisition].*[271]

This last point is significant. The success of Google's AdWords auctions has served to raise the costs of advertising on Google. With more advertisers entering the AdWords auctions,

and the plans to improve DART Search.[274] However, a series of documents – documents authored by Holden – explicitly link the two ideas.

In December 2008, Holden, senior vice-president of ad products Susan Wojcicki, and others met to discuss the issue. Of the meeting, Holden wrote:

> [O]ne debate we are having is whether we should eliminate our API T&Cs requirement that AW [AdWords] features not be co-mingled with competitor network features in SEM cross-network tools like DART Search. *We are advocating that we eliminate this requirement and that we build a much more streamlined and efficient DART Search* offering and let SEM tool provider competitors do the same. There was some debate about this, but *we concluded that it is better for customers and the industry as a whole to make things more efficient* and we will maximize our opportunity by moving quickly and providing the most robust offering.[275]

In February 2009, Holden wrote the executive summary for a DART Search product review, in which he advocated that Google "alter the AdWords Ts&Cs to be less restrictive and produce the leading cross-network toolset that increases advertiser/agency efficiency." Such a move, he wrote, would "[r]educe friction in the search ads sales and management process and grow the industry faster."[276] In April 2009, in light of evident disapproval from Larry Page about the idea of removing the co-mingling restriction, Holden wrote: "We've heard that and we will focus on building the product to be industry-leading and will evaluate it with him when it is done and then discuss co-mingling and enabling all to do it."[277]

In September 2009, the API product manager again raised the possibility of eliminating the restrictive conditions as a way to help DART Search, this time with the added argument that DART Search was not able to compete effectively against other SEM cross-network tools that might be violating those restrictive conditions.[278] Before the issue was raised up the ladder to Susan Wojcicki, the API product manager asked Richard Holden's advice:

advertising syndication (or "search intermediation"). We recommend that the Commission issue a complaint against Google for this conduct.

a.   Publishers and Market Structure

The buyers of search and search advertising syndication services are website publishers. In effect, any website that has content that it would like to monetize via ads is a potential buyer of syndication services. While there are thousands of these websites, a handful of the largest websites on the Internet account for the vast majority of syndicated search traffic and revenue. [285] Google served approximately 118 billion AdSense (search syndication) queries in 2011, but just 10 websites generated almost 80 percent of that traffic. [286]

The biggest customers for search and search advertising syndication services are e-commerce retailers (e.g., Amazon and eBay), traditional retailers with large associated websites (Wal-Mart, Target, Best Buy), and Internet Service Providers ("ISPs"),[287] which operate their own web portals.[288]

Below this small group of very large publishers, there are another roughly 25 companies with significant query volume. These mid-tier companies include vertical e-commerce sites such as Kayak (travel), along with smaller retailers and smaller ISPs such as EarthLink. None of these mid-tier companies generate even one percent of Google's total AdSense query volume. Below these companies, publisher size drops off rapidly to well under 0.1 percent of Google's query volume.[289]

The search provider pays the publisher (website) a percentage of the revenue generated from user ad clicks on the publisher's website. In the industry, these agreements are known as "revenue sharing" arrangements. The higher this percentage, the more the

domain related) advertising services. There are two main categories of AdSense agreements: AFS (search), which provides search advertising to publishers, and AFC (content), which provides contextual advertising to publishers. Staff's investigation has focused on Google's AFS agreements.

Within the AFS category, there are two types of agreements: (i) Google Service Agreements ("GSAs"), which are individually negotiated agreements with large partners; and (ii) standard online contracts, which are non-negotiable and non-exclusive agreements that any publisher can sign.[296] Standard online agreements make up the bulk of Google's AFS partners, but only a small portion of AFS revenues.[297] The bulk of the revenues come from the GSAs with Google's 10 largest partners, which collectively comprise almost 80 percent of Google's overall AFS query volume in 2011.[298] All of Google's GSAs contain some form of exclusivity or "preferred placement" for Google, and the GSAs typically last from one to three years.[299]

Google's exclusive AFS agreements effectively prohibit the use of non-Google search and search advertising within the sites and pages designated in the agreement.[300] Some exclusive agreements cover all properties held by a publisher globally; other agreements provide for a property-by-property (or market-by-market) assignment.[301]

By 2008, with its market presence clearly established, Google began to migrate away from outright exclusivity in all of its agreements toward what Google terms "preferred placement" in many of its agreements.[302] In essence, the "preferred placement" provision requires the publisher to display three Google ads or the same number of ads the publisher acquires from any competitor (whichever is greater); that Google's ads be displayed in an

The customers generally confirmed Microsoft's claim that Bing's search syndication offering is inferior, at least in part, because Microsoft's network of advertisers is smaller than Google's. With a significantly larger advertiser base, Google is more likely to have a relevant, high-quality advertisement for any given query, which greatly improves its monetization rate relative to Microsoft.[307]

A smaller publisher reported that, essentially, the only websites exclusively using Bing's search syndication service today are those that have been kicked out of Google's syndication network for violating its terms of service.[308] While we know from other interviews that this comment is an exaggeration, it does capture the general tenor of the comments we received about the relative quality of Microsoft's search and search advertising syndication product.

Many publishers reported that Microsoft was not aggressively trying to win their syndication business. One mid-tier publisher stated that Microsoft did not even return its inquiry calls during the publisher's last contract renewal discussions with Google.[309] A Microsoft executive acknowledged that Bing needs a larger portfolio of advertisers in order to present a competitive offering to publishers, and so the company has not been focused on winning new search syndication business.[310]

Another common theme we heard from many (but not all) of the publishers is that serving advertising is a relatively minor part of their business and not a significant strategic focus for them. For example, Wal-Mart operates its website principally as an extension to its retail operations (letting Wal-Mart customers buy products either in-store or from the website at their preference).[311] Best Buy's principal goal for its website is to be the provider of presale information, as 60 percent of its customers do online research before coming to the

reductions in their AdSense revenue share percentage as large enough to justify shifting their business to Bing or to begin serving more display advertisements instead of search ads.[321]

ii.   Publishers' Views of Exclusivity Provisions

When asked whether their AdSense contract with Google was exclusive, the publishers gave widely varied answers. A number of the large publishers reported that their AdSense contract with Google was exclusive,[322] but some reported that their AdSense contracts were not exclusive.[323] Most of the publishers that reported exclusivity provisions did not complain to us about them.

Staff's interviews did identify a fairly small, but significant, group of publishers that were deeply concerned by the exclusivity provisions in their Google AdSense agreements. All of these customers view search and search advertising syndication income as a substantial part of their business, and all have the technical sophistication to integrate multiple suppliers into their on-line properties. We summarize these concerns below.

eBay. eBay is Google's largest search and search advertising syndication partner, accounting for just over 27 percent of the syndicated U.S. queries answered by Google in 2011.[324] Section 14 of eBay's AdSense agreement states that the agreement is not exclusive.[325] However, the contract requires preferential treatment for Google AdSense ads, which eBay has characterized as equivalent to exclusivity.[326] The preferential treatment terms include requirements that eBay show as many Google AdSense ads on each page as third-party advertisements, that no third party advertisements appear above the Google AdSense advertisements, that Google AdSense advertisements cannot be interspersed with third party advertisements, and that Google AdSense advertisements cannot be less prominently displayed than third party advertisements.[327]

because it would have such poor placement on the NexTag site due to the Google contract restrictions.[336]

Business.com. Business.com is a "B2B" lead generation/vertical site. In effect, the site marries commercial customers looking for products (such as business phone systems) with providers of those products.[337] Business.com is several orders of magnitude smaller than the other complainants, barely making it onto a list of the top 60 providers of AdSense query volume. Business.com reports that it has an exclusive AdSense agreement with Google.[338] This agreement materially limits how Business.com can design its web pages. If Business.com were relieved from its exclusive arrangement, it would test Bing and Yahoo! by product category, and place their advertisements in a more prominent position in those categories where their performance warranted.[339] The company would also likely take advertisements from both Google and Bing/Yahoo!, and show them on the same page, with placement dictated by relative performance in each category.[340] Loosening up Google's exclusivity restrictions would allow Business.com to improve its revenue, and also allow it to introduce some new features that would make the site more accessible and user-friendly.[341]

Amazon. Amazon is the world's largest e-commerce site[342] and the second largest AFS customer after eBay. On a worldwide basis, Amazon earns roughly $175 million from search syndication services, with $169 million of that total coming from Google's AdSense search product.[343] Amazon does not have an exclusive agreement with Google, and actually splits its inventory among Google, Bing, and Yahoo!.[344] However, Amazon finds that the Bing and Yahoo!'s advertisements monetize at about 46 percent the rate of Google's advertisements.[345] Because of the very large monetization gap, Amazon can only afford to use Bing and Yahoo! for a very small percentage of its total search syndication needs.[346]

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during the negotiation period wanted an exclusive arrangement.[358] Ultimately, Google's

offering was the most lucrative, and IAC re-signed with Google.[359]

However, IAC expressed concern about Google's requirement of exclusivity for

subsidiary properties, such as local website CityGrid, that wanted to explore "mix-and-

match" options with other search advertising providers. Indeed, in 2008, IAC declined to opt

CityGrid into its larger exclusive agreement, attempting to forge an alternative route with

other search advertising providers (including CityGrid's own ad network). Ultimately,

however, CityGrid determined that it could not completely replace Google's syndication

network, even with a patchwork of other providers. Since then, CityGrid has been forced to

"opt in" to IAC's larger exclusive agreement. Although CityGrid wants the option of using

other networks (including its own), and supplementing those ads with Google ads, it cannot

do so under IAC's existing agreement with Google. More generally, IAC expressed concern

about the lack of competition in search and search advertising syndication because there are

no good substitutes for search advertising.[360]

While IAC initially seemed supportive of the story we heard from the other

concerned publishers, during a recent follow-up call, IAC's tone changed substantially. One

of the key complainants on the initial call was the president of IAC subsidiary CityGrid.

That executive has since left IAC, and our more recent call was with another executive, who

was in charge of business development for IAC. This executive was far less sanguine as to

IAC's likelihood of splitting their business in the absence of exclusivity. He noted that,

while he was also concerned about the lack of competition in the market, he could not see

moving incremental traffic to Bing or other search advertising providers unless the

monetization gap narrowed significantly. The departure of the key executive with the closest

An attempted monopolization claim requires a showing that (i) "the defendant has engaged in predatory or anticompetitive conduct" with (ii) "a specific intent to monopolize" and (iii) a dangerous probability of achieving or maintaining monopoly power.[365]

A. GOOGLE HAS MONOPOLY POWER IN RELEVANT MARKETS

"A firm is a monopolist if it can profitably raise prices substantially above the competitive level. . . . [M]onopoly power may be inferred from a firm's possession of a dominant share of a relevant market that is protected by entry barriers."[366] Google has monopoly power in one or more properly defined markets.

1. Relevant Markets and Market Shares

A properly defined antitrust market consists of "any grouping of sales whose sellers, if unified by a hypothetical cartel or merger, could profitably raise prices significantly above the competitive level."[367] Typically, a court examines "such practical indicia as industry or public recognition of the submarket as a separate economic entity, the product's peculiar characteristics and uses, unique production facilities, distinct customers, distinct prices, sensitivity to price changes, and specialized vendors."[368]

Staff has identified three relevant antitrust markets.

a. Horizontal Search

Horizontal, algorithmic web search (hereafter "horizontal search") likely constitutes a properly defined relevant market. As discussed earlier, horizontal search engines, such as Google, attempt to cover the content of the Internet as widely as possible, and are specifically designed to return a comprehensive list of search results on any topic. By contrast, "vertical" search engines focus on more narrowly-defined categories of content, such as product

words, to the extent vertical websites compete with horizontal search providers within their limited areas of competence, nothing prohibits price discrimination between those narrow areas and the broader web.

Even in the narrow areas where vertical websites have subject matter competence, they face challenges in competing effectively with horizontal search providers. This is because comprehensive coverage of all topic areas appears to be a very important driver of demand, even to websites focusing on specific topic areas. The ability to offer comprehensive search results was characterized as "fundamental" by Google's former CEO, Eric Schmidt.[372] Schmidt explained that the company needs to build brand equity with its customers by providing consistently good results regardless of the content of the query, and that strong results across-the-board lead to specific queries in commercial search:

> So if you, for example, are an academic researcher and you use Google 30 times for your academics, then perhaps you'll want to buy a camera…So long as the product is very, very, very, very good, people will keep coming back…The general product then creates the brand, creates demand and so forth. Then occasionally, these ads get clicked on.[373]

In effect, users are habituated into using Google for all their queries because of its comprehensive scope, and so they may be more likely to turn to Google when they have commercial queries, instead of starting at a vertical website. Schmidt's testimony is corroborated by the representations of several of the vertical search firms, who note that they are dependent on horizontal search providers for significant amounts of their traffic, because even many vertical search users tend to begin their search with a query on Google, Bing or Yahoo!.[374]

When asked to identify his competitors in web search, Schmidt did not mention any vertical property: "[A]s far as I can tell, the industry has two main horizontal however you

properly define the scope of the geographic market for web search. Our investigation has uncovered no basis on which to deviate from this conclusion.[379]

Google is clearly the dominant provider of "general search" services in the United States. Google's own sites have a 66.7 percent share of the market as of May 2012, according to ComScore, a leading industry measurement firm.[380] Google also provides search services to two small, formerly independent web search operators (Ask.com[381] and AOL[382]), which collectively account for another 4.6 percent of the relevant market according to ComScore.[383] In sum, the total Google-powered query share in the United States is 71.3 percent, according to ComScore.[384]

The balance of this market is controlled by the Microsoft/Yahoo! search alliance. Yahoo! holds approximately 15 percent of the market, and Bing (owned by Microsoft), holds approximately 14 percent.[385] As noted earlier, since 2009, Microsoft and Yahoo! have been partners in what essentially amounts to a long-term joint venture for search, where Microsoft powers the algorithmic search results for both Yahoo! and Bing, while Yahoo! handles the direct relationships with large advertisers for the combined service.[386] Advertisers that want to purchase search advertising on Yahoo! or Bing cannot buy access to these properties separately, but rather must purchase advertisements that run on both sites simultaneously.[387] So, in effect, there are just two providers of horizontal search: Google and the Bing/Yahoo! search alliance.

Firm	ComScore Market Share, May 2012
Google	71%
Bing/Yahoo	29%

are typically more interested in developing user interest – or "branding" – than in eliciting a direct response from the consumer, whereas the primary attraction of search advertising is its propensity to generate direct responses.[394] As Hal Varian, Google's chief economist put it, "[o]ne way to think about the difference between search and display/brand advertising is to say that 'search ads help satisfy demand' while 'brand advertising helps to create demand.'"[395]

The different manners in which display and search advertising are priced is consistent with their distinct overarching goals. Search advertisements – whose main goal is to directly drive user purchases – are priced on a "cost-per-click" basis (*i.e.*, an advertiser only pays if a user clicks on the ad). Conversely, display advertisements – whose main goal is to spark interest and drive awareness – are priced based on the number of times the ad is displayed.

Display and search advertising are also separately managed, measured, and tracked internally at Google.[396] Similarly, for advertisers and agencies, display and search are different categories.[397] The ad types require different creative, targets, budgets, and tracking.[398] Most advertisers spend in both categories, as they consider display and search advertising to be complements.[399]

Evidence suggests that search and display are indeed complements rather than substitutes. Google has observed steep click declines when advertisers have attempted to shift budget to display advertising. For example, when automobile manufacturer Chevrolet decided to suspend its search advertising campaign for two weeks, and rely on display advertising alone, it lost 30 percent of total clicks on its website.[400]

In recent years there has been some perceived convergence between the functions of display and search advertising.[401] With varying degrees of success, both display and search

of advertising.[414] However, a minority of advertising agencies and advertisers said they would move advertising dollars away from search advertising in response to a SSNIP.[415]

Google's internal documents and testimony confirm that there is currently no viable substitute for search advertising. Both AdWords vice-president of product management Nick Fox and chief economist Hal Varian have previously stated that search advertising spend does not come at the expense of other advertising dollars.[416] And former Google CEO Eric Schmidt has twice testified unequivocally – in both this investigation and in a prior Department of Justice investigation – that search advertising is "the most effective tool for reaching the customers that are actually prepared to buy,"[417] and "has the best ROI of any advertising as best we can determine."[418]

Both the Commission and the Department of Justice have previously found online "search advertising" to be a distinct product market. Specifically, in 2007, the Commission noted that "advertisers purchase different types of ad inventory for different purposes," and concluded that "the sale of search advertising does not operate as a significant constraint on prices or quality of other online advertising."[419] The Department of Justice found that search advertising was a relevant antitrust market in 2008, and again endorsed search advertising as a relevant market in 2010.[420]

While no court has yet determined that search advertising constitutes a relevant market, courts have repeatedly recognized narrow advertising markets. For example, in *Times-Picayune Publishing Co. v. United States*,[421] the Supreme Court identified newspaper advertising as a unique antitrust market. There, the Court held that there were two "separate though interdependent markets" – one market for selling news and ads to readers and a

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The consumers in this market are the publisher websites that wish to provide search services and return search advertisements on their websites, while the sellers are the horizontal search providers, Google, Bing, and Yahoo!.[431]

Staff has interviewed a number of publishers of various sizes, and they provide very consistent responses on the issue of cross-elasticity of demand. Publishers report that search and search advertising syndication monetizes better than display advertising or other content that they might place on their websites.[432] The publishers do not view other forms of advertising as viable substitutes for search and search advertising syndication.[433] None of the publishers told us that a modest (5 to 10 percent increase) in the price for search and search advertising syndication would cause them to shift away from search and search advertising syndication in favor of other forms of advertising or web content.[434]

Further support for this relevant market comes from Google's efforts to systematically reduce TAC, or the amount of money Google shares with the publisher from syndicated searches. A decline in revenue share is effectively a price increase to the publishers. A number of the publishers have seen their revenue share from Google decline significantly in recent years as a result of Google's efforts.[435] Of the publishers Staff has interviewed, none have reduced or eliminated their use of search and search advertising syndication in response to these price increases.[436] In effect, Google's successful efforts to systematically to reduce revenue share constitutes a natural experiment to determine the likely response to a SSNIP. The publishers' response to Google's price increases has been universally consistent with the proposition that search and search advertising syndication (search intermediation) is a relevant market.

b. Substantial Upfront Investment

Along with specialized algorithms, search and search advertising platforms require enormous investments in the technology and infrastructure required to crawl and categorize the entire Internet.[443] For instance, in 2011, Google spent more than $5 billion on research and development, although this figure is inclusive of all of Google's divisions.[444] And, in 2010, Microsoft invested more than $4.5 billion into developing its algorithms and building the physical capacity necessary to operate Bing.[445]

c. Scale Effects

As discussed at length earlier, Internet search, search advertising, and search syndication are markets that are characterized by substantial scale effects. As more consumers use a general search engine, its search algorithms are honed to improve its accuracy in retrieving the information that consumers want. More users also leads to an increased number of advertisers. And, as the number of advertisers that place ads – and the number of consumers who click on those ads – increases, the ad-serving algorithms improve their ability to predict what advertisements stimulate consumer "clicks." This, in turn, increases monetization for the search engine, its advertisers, and its syndication partners, which leads to the cyclical effect of greater participation by both advertisers and publishers. This effect, which has been termed the "virtuous cycle," represents a significant barrier for any potential entrant.[446]

Indeed, according to Microsoft, its greatest barrier is obtaining sufficient scale through its collection of search and advertising data, and it faces an enormous task in trying to catch up with Google. Despite substantial investments in technology and infrastructure, Microsoft has yet to make a significant dent in Google's market share, and has been losing

trafficked websites, which, in turn, magnifies the problems of scale effects. In addition, the exclusive agreements act as barriers to smaller, more specialized search advertising platforms (*e.g.*, a network specializing in local Washington, D.C.-based advertising, or in specific categories, such as travel).

B. GOOGLE HAS ENGAGED IN EXCLUSIONARY CONDUCT

Conduct may be judged exclusionary when it tends to exclude competitors "on some basis other than efficiency," *i.e.*, when it "tends to impair the opportunities of rivals" but "either does not further competition on the merits or does so in an unnecessarily restrictive way."[452] In order for conduct to be condemned as "exclusionary," Staff must show that Google's conduct likely impairs the ability of its rivals to compete effectively, and thus to constrain Google's exercise of monopoly power.[453]

1. Google's Preferencing of Google Vertical Properties Within Its SERP

As described earlier, Staff has investigated whether Google is unlawfully preferencing its own vertical content over that of rivals, while simultaneously demoting rival vertical websites, in order to maintain, preserve, or enhance its monopoly power in the markets for search and search advertising. Although we believe that this is a close question, we conclude that Google's preferencing conduct does not violate Section 2.

a. Google's Product Design Impedes Vertical Competitors

"As a general rule, courts are properly very skeptical about claims that competition has been harmed by a dominant firm's product design changes. . . . Judicial deference to product innovation, however, does not mean that a monopolist's product design decisions are *per se* lawful."[454] In *United States v. Microsoft*, the D.C. Circuit concluded that several

The theory of harm to competition is mainly one of reduced innovation: that, when faced with Google's seamless ability to enter into highly monetizable categories of commerce and simultaneously to disadvantage its competitors, existing competitors cannot innovate at the same pace; new or innovative vertical websites will cease to enter the market; and consumers will be faced with a corresponding reduction in innovation and choice.[459]

b. Google's SERP Changes Have Resulted In Anticompetitive Effects

Google's conduct has resulted in significant harm to rival vertical websites in a number of different categories. As described earlier, in the comparison shopping category – one of the first areas in which Google vigorously expanded its own offering, while simultaneously demoting rival offerings – many rival websites have experienced significant declines in traffic. Data obtained from NexTag and Shopping.com, among others, suggests that, as a result of Google's conduct, these websites have experienced significant drops in traffic. Google's internal data confirms this impact.[460]

Simultaneously, Google's prominent placement and display of its Universal Search properties led to gains in user share for its own properties. For example, Google's inclusion of Google Product Search as a Universal Search result turned a property that the Google product team could not even get *indexed* by Google's web search results into the number one viewed comparison shopping website on Google.[461]

c. Google's Justifications for the Conduct

Google claims that the conduct under review improves its product and benefits users. "[A] design change that improves a product by providing a new benefit to consumers does not violate Section 2 absent some associated anticompetitive conduct." *Allied Orthopedic Appliances, Inc. v. Tyco Health Care Group LP*, 592 F.3d 991, 998-99 (9th Cir. 2010).

results. Google measures the quality of its verticals by assigning relevance values to each individual vertical result, *i.e.*, to each merchant in a specific product search, or to each location in a local search (which may be ranked by popularity, rating, number of Google reviews, distance, and other factors).

Google's web search results, on the other hand, receive a score based on the text read from crawling the contents of the page. Based on the crawled text, the pages are rated using factors such as click-through rates (*i.e.*, how often previous users clicked on the page), commerciality (*i.e.*, whether the page has too many ads), and the page's PageRank.[468] With Google's current algorithms, Google cannot directly compare, say, the ranking for a specific restaurant (in its own local results) to the ranking for an entire web page (in someone else's local results).[469] On the other hand, Microsoft has told us that Bing uses a single signal – click-through rate – to determine where to place the Universal Search content within the organic search results.[470]

Google's justification for promoting its own properties above that of competing properties automatically when those properties appear (recall the algorithms that boosted Google Product Search to the top of the SERP whenever another comparison shopping website was deemed relevant) is not as strong, but still has some force. Google's justification for this conduct is that, if another vertical property is deemed relevant by Google's algorithms, Google's vertical property must also have high quality results – and Google's rich Universal Search results are more helpful to the user than "blue links" to other comparison shopping websites.

Google's justification for surfacing only (or mainly) Google-sourced content – rather than third-party vertical content – within its Universal Search results is less convincing.

Google's defense for this conduct essentially boils down to "user expectations." Sergey Brin testified that Google's showcasing of its Universal Search results is not inconsistent with the demotion of other similar vertical content because Universal Search represents a "mode change" for users.[476] According to Brin:

> So when you search for products rather than searching for web pages, I feel like that's more of a mode change. You know, you're switching – in fact, you can switch . . . . You can switch to product mode. And I think that would be confusing in the user interface if you were to just get a web link, you know, that looked like a normal Google result and yet it takes you to another Google search. I think people understand mode changes. They might understand resorting something in a different way. But I think ultimately when you click on an individual [web] link, you want to get an answer. You don't want to get another set of search results.[477]

In other words, Google's position is that, if a user conducts a search on Google for a product, that user is looking for *Google's* search results, not another list of search results from another search provider. However, Google has presented no evidence of user expectations in this area.[478] Indeed, Google's vertical properties are typically not labeled as "Google" results, and thus, outwardly at least, provide no cue to a user that he or she is "switching" to a different mode of Google search.[479] Nevertheless, Brin testified that "the user interface is pretty clear"[480] – "the link that says 'shopping results for' is clearly a specialized part of the interface. It doesn't appear to be just like another web page."[481]

d.   Google's Additional Legal Defenses

Setting aside efficiency justifications, Google has argued – successfully in several litigations – that it owes no duty to assist in the promotion of a rival's website or search platform, and that it owes no duty to promote a rival's product offering over its own product offerings.[482] Indeed, one reading of *Trinko* and subsequent cases is that Google is privileged in blocking rivals from its search platform unless its conduct falls into in one of several

In sum, Staff acknowledges the difficulties inherent in this area of the investigation, not only because of the legal hurdles we would face, but because of the strong procompetitive justifications Google has set forth. We are faced with a set of facts that can most plausibly be accounted for by a narrative of mixed motives: one in which Google's course of conduct was premised on its desire to innovate and to produce a high quality search product in the face of competition, blended with the desire to direct users to its own vertical offerings (instead of those of rivals) so as to increase its own revenues. Indeed, the evidence paints a complex portrait of a company working toward an overall goal of maintaining its market share by providing the best user experience, while simultaneously engaging in tactics that resulted in harm to many vertical competitors, and likely helped to entrench Google's monopoly power over search and search advertising. The determination that Google's conduct is anticompetitive, and deserving of condemnation, would require an extensive balancing of these factors, a task that courts have been unwilling – in similar circumstances – to perform under Section 2. Thus, although it is a close question, Staff does not recommend that the Commission move forward on this cause of action.

2. Google's "Scraping" of Rivals' Vertical Content

As described earlier, Staff has investigated whether Google has unlawfully "scraped" – or appropriated – the content of rival vertical websites in order to improve its own vertical products, so as to maintain, preserve, or enhance its monopoly power in the markets for search and search advertising. We conclude that this conduct violates Section 2 and Section 5.

ticket *even if compensated at retail price* revealed a distinctly anticompetitive bent.[497]

Appellate courts have focused upon *Trinko's* reference to the "unilateral termination of a voluntary course of dealing," as a critical limitation upon a monopolist's discretion in determining whether to deal with a rival. For example, in *American Central Eastern Texas Gas Co. v. Duke Energy Fuels LLC*,[498] the Fifth Circuit upheld an arbitrator's determination that the defendant natural gas processor's refusal to contract with a competitor for additional processing capacity was unlawful. Plaintiff was both a "gatherer" and "processor" of natural gas. The plaintiff alleged that, because it was not economically feasible to open its own processing plant, it contracted with the defendant for processing capacity.[499] After two years of using the defendant's processing plant, when the plaintiff entered into renegotiations for additional capacity, the defendant proposed terms that it "knew were unrealistic or completely unviable" to the plaintiff, including a very high price, "in order to exclude [the plaintiff] from competition with [the defendant] in the . . . gas processing market."[500] The Fifth Circuit upheld the arbitrator's conclusion that the defendant unlawfully refused to deal with the plaintiff, acknowledging that, while courts "must be cautious in finding exception to the right to refuse to deal," here, the defendant's refusal, in the context of a "prior course of dealing" with plaintiff, supported a finding of liability.[501]

Here, much like in *Aspen Skiing* and *Duke Energy*, there is a compelling narrative regarding a prior voluntary course of dealing. Specifically, Google had long-established, voluntary, and mutually beneficial licensing agreements with both Yelp and TripAdvisor. Through its agreements with these (and other) third parties, Google secured relevant and high-quality content for its web search product. In exchange, through their presence in

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collaborative networks if we permit one dominant firm to run away with all of the private gains once it is in a position to do so."[507]

There are some distinctions between the conduct in *Aspen* and Google's conduct here that bear mention. First, the exchange of value here is non-financial. The benefit to Google accrues from securing high-quality content, while Google's partners secure traffic. However, this distinction appears to be insignificant. Whether the payment is in the form of dollars or other benefit is of little consequence to the purpose or effect of Google's threatened refusal to deal.[508]

More importantly, Google ultimately did not "refuse" to deal with Yelp, and their relationship continues to this day. While Google never followed through on its threat to remove these websites entirely from its web search results, it is clear that Google's threat was intended to produce, and *did* produce, the desired effect (for a significant period of time), which was to coerce Yelp and TripAdvisor into backing down on their efforts to have their valuable content removed from the Google Local product. Google's threat also sent a message to the broader marketplace that Google could, and would, use its monopoly power over search to extract the fruits of its rivals' innovations. Consequently, Google's threat itself – although not a consummated refusal to deal – may be challenged as exclusionary conduct.[509]

This theory of exclusion does not reach the search preferencing conduct we assessed *supra* at pp. 78-86. Here, we view the evidence of benefit to Google stemming from its licensing agreements with third-party content providers as offering the critical distinction. Google's long-standing licensing agreements with parties such as Yelp and TripAdvisor offer clear and convincing proof not just of an affirmative relationship between Google and these

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Amazon's product ranking information, which was never part of any licensing agreement between the parties). Under this approach, Google's conduct can be analogized to the imposition of higher costs, through onerous terms of dealing, on websites whose content Google deems the most valuable to its own web search product.[510] Viewed in this way, condemnation of Google's conduct depends not on any prior established relationship with the affected vertical websites, but rather, on Google's motivation in scraping content from high-quality vertical competitors – the motivation to keep vertical websites from siphoning users from Google's web search property (and thus, maintaining, preserving, or enhancing its monopoly position in the market for search).

While a traditional Section 2 analysis relies on a prior course of dealing as a gatekeeper, or a bright line proxy, for showing that the defendant's purpose and effect was anticompetitive, Section 5 empowers the Commission to demonstrate harm to the competitive process in other ways.[511] For example, Google's threat (and willingness) to degrade its own web search product – by banishing high-quality vertical websites from its web search results altogether – suggests that Google's motive in scraping high-quality content from its vertical competitors was not procompetitive.

b. Google's "Scraping" Has Resulted In Anticompetitive Effects

As described earlier, Google's "scraping" of the content of rival vertical websites has resulted in harm to these vertical websites and, more broadly, to the competitive process. Because Google scraped information over an extended period of time, it is difficult to point to declines in traffic that are specifically attributable to Google's conduct. However, Google's conduct has arguably lessened the incentives of vertical websites like Yelp, TripAdvisor, CitySearch, and Amazon to innovate.

In sum, the evidence shows that Google used its monopoly position in search to scrape content from rivals and to improve its own complementary vertical offerings, to the detriment of those rivals, and without a countervailing efficiency justification. Google's scraping conduct has helped it to maintain, preserve, and enhance Google's monopoly position in the markets for search and search advertising. Accordingly, we believe that this conduct should be condemned by the Commission.

3. Google's API Restrictions

Staff has investigated whether Google has employed anticompetitive contractual restrictions to prevent advertisers from using third-party tools to simultaneously manage campaigns on Google's search advertising platform (AdWords) and rival advertising platforms (e.g., Microsoft's AdCenter). As described earlier, Microsoft has alleged that Google is denying Microsoft critical scale by employing these restrictions, and thus impairing Microsoft's ability to compete effectively in the markets for general search and search advertising. We conclude that Google's API restrictions violate Section 2.

Google's introduction of the AdWords API was a clearly procompetitive development that benefitted advertisers, SEMs, and Google alike. However, the restrictive conditions in the API usage agreement have anticompetitive effects without offsetting precompetitive benefits. They impede the efficient use of advertisers' own campaign data, creating additional, unnecessary transaction costs for advertisers that might wish to use that data to run advertising campaigns on other search networks. The restrictive conditions are not inherently tied to the product. Accordingly, we may evaluate Google's inclusion of the restrictive conditions as a stand-alone act and weigh their anticompetitive effects against any potential procompetitive benefits.[517]

The restrictive conditions are unreasonable if their anticompetitive effects outweigh their procompetitive virtues. Our investigation has shown that the restrictive conditions do not have any procompetitive virtues, whereas their anticompetitive effects, while difficult to measure, are substantial.

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b.   The Restrictive Conditions Have Resulted In Anticompetitive Effects

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The restrictive conditions harm competition in three broad ways. They reduce innovation, increase transaction costs, and degrade the quality of Google's rivals in search and search advertising.

As noted above, several SEMs have been forced to remove campaign cloning functionality by Google. Beyond removing these products from the marketplace, Google's restrictive conditions have created a profound disincentive for tool developers to innovate in this area. A high performance cross-network campaign management tool would need to be a sophisticated product, able to allocate and adjust bids on keywords in different auctions with different and rapidly shifting competitive environments. However well the first-generation tools performed, it seems obvious that their performance would only have improved as SEMs and their clients tested these tools in the field. Google's restrictive conditions stopped this market segment in its infancy. There would be little to no demand for a cross-network management tool without the prospect of accessing the dominant search network, AdWords.

Google's imposition of the restrictive conditions has increased the transaction costs for all advertisers other than those large enough to make the internal investments to develop their own campaign management tools.[521] For the rest, they must devote additional staff time to manage multiple parallel campaigns. Some may choose to use work-arounds, by which they download their AdWords campaigns into CSV (or plain-text) files, make the requisite

Moreover, Google ignores the possibility that even larger advertisers that multi-home would do so more without the restrictions. As described above, Microsoft's internal studies suggest that advertisers who advertise on both platforms do so unevenly and unequally, thus leading to better, more targeted, and more relevant ads on AdWords than on AdCenter. As described earlier, having the "right" ad for the "right" user at the "right" time is critical to a search engine's ability to improve its ad-serving algorithms and its revenue-per-search (or RPS).[529] The lack of smaller advertisers, combined with the lack of regular optimization by even the larger advertisers who advertise on both platforms, places Microsoft in a significantly inferior position to Google in terms of being able to provide that "right" ad for the "right" user at the "right" time.

While the magnitude of these effects are unclear, their direction is clear: advertisers are spending less on the non-dominant search networks. For advertisers, this means forgone advertising opportunities that presumably would have been profitable, but for the restrictive conditions. For Google's rivals, the diminished spend resulting from the restrictive conditions means lost revenue, which diminishes their ability to invest in quality improvements in search. The reduction in ads placed also reduces the overall quality of the ads served on the rival search networks, which reduces the usefulness of the ads served to users, reducing, in turn, users' propensity to click on ads, an effect that broadly degrades the quality of the rival search network. It is also possible, though more speculative, that reduced ad quality may modestly reduce the usefulness of the rival search engines, particularly on very commercial queries, which in turn may suppress the number of searches performed on the rival networks. The degradation of Google's rivals both as advertising platforms and as

tools that perform well will lose clients. In fact, even if SEMs and agencies were in no danger of losing their clients' business, they would still have a strong incentive to improve their clients' returns as a way to encourage their clients to spend more on search advertising, increasing the third parties' commissions in the process. In a round-table discussion hosted by Google, SEMs and agencies made this exact point to Google.[538] In brief, these third parties incentives are highly *aligned* with Google's interests, precisely the opposite of what Google contends.[539]

Google, meanwhile, is unable to identify any concrete examples of any ill effects from the purportedly misaligned incentives of SEMs and agencies. Google has represented to advertisers and agencies that "we have found that advertisers experience higher returns when all AdWords functionality is available to them in a clear, *functionally discrete*, and coherent manner."[540] However, Google has no such evidence.[541] Google did investigate the potential influence SEMs would have on the rate of spending by their clients, and determined that the spend for advertisers represented by SEMs increased at a higher rate than did spend for other advertisers.[542] Google has not engaged in any experiments to determine what effect relaxing the restrictive terms and conditions might have.[543]

Moreover, there is already a different provision in the API AdWords Terms and Conditions that adequately addresses any concern about misaligned incentives. As a condition of using the API, SEMs and other tool developers are required to expose a Google-defined set of minimum functionality.[544] The required minimum functionality provision directly addresses any legitimate concerns that Google might have about SEMs failing to expose important features of AdWords to their advertiser clients. Google has not explained how the required minimum functionality requirement is inadequate in this regard.

Google deems important to the performance of AdWords. Although Google now claims that the required minimum functionality condition *and* the restrictive conditions are both aimed at the lowest common denominator concern,[550] it cannot explain why the required minimum functionality requirement alone would not suffice to alleviate the lowest common denominator concern. Indeed, this document suggests that the restrictive conditions were actually designed specifically to reduce the likelihood that advertisers would extend their campaigns to rival search networks.[551]

In sum, the effects of these restrictive conditions, combined, have the tendency to preserve and enhance Google's dominant position in the search advertising market. Unjustified by any procompetitive benefits, we believe that Google's restrictive conditions should be condemned by the Commission.[552]

4. Google's Exclusive and Restrictive Syndication Agreements

Staff has investigated whether Google has entered into anticompetitive, exclusionary agreements with websites for syndicated search and search advertising services (AdSense agreements) that serve to maintain, preserve, or enhance Google's monopoly power in the markets for search, search advertising, or search and search advertising syndication (search intermediation). We conclude that these agreements violate Section 2.

a. Google's Agreements Foreclose a Substantial Portion of the Relevant Market

Exclusive deals by a monopolist harm competition by foreclosing rivals from needed relationships with distributors, suppliers, or end users. For example, in *Microsoft*, then-defendant Microsoft's exclusive agreements with original equipment manufacturers and software vendors were deemed anticompetitive where they were found to prevent third parties from installing rival browser Netscape, thus foreclosing Netscape from the most

party dataset routinely used in the industry to analyze query volumes and market shares.[561] As noted earlier, however, in a company data set provided by Microsoft, Yahoo!'s syndicated query volume is significantly higher than that reflected in ComScore.[562] Reliance on the larger figure would clearly result in a dramatically lower foreclosure number for Google's agreements. We are trying to get to the bottom of this discrepancy now. However, based on our broader understanding of the market, we believe that the ComScore set more accurately reflects the relative query shares of each party.[563]

Below, Staff lays out three scenarios: the most conservative foreclosure scenario; the most aggressive foreclosure scenario; and the "intermediate" – or most likely defensible – foreclosure scenario. In our most conservative estimate, the foreclosure rate is approximately 20 percent.[564] In our most aggressive estimate, the foreclosure rate is approximately 66 percent.[565] In the "intermediate" scenario, the foreclosure rate is approximately 52 percent.[566]

Obviously, given the limitations of the various datasets, the calculated foreclosure rates are of limited value. Nevertheless, it is clear that Google has tied up a substantial portion of this distribution channel with exclusive and restrictive agreements. In the market for search syndication, Google has exclusive or restrictive agreements with 12 of the top 20 companies (60 percent) and 4 of the top 5 (80 percent). The 20 largest companies account for 94 percent of total query volume.[567] Courts have found that foreclosing rivals from the most efficient means of distribution can be especially problematic.[568] Access to these largest players is by far the most efficient method for Bing to gain query volume in the syndication channel.[569]

the publishers we interviewed did not object to exclusivity because they wanted to use Google for all their search syndication needs anyway.

Our investigation indicates that this objection rests on a fallacious assumption: namely, that Bing's *average* monetization gap is derived from its *consistent* failings across-the-board. If, instead, that overall average is derived from sources of differing quality, that means Bing actually does have opportunities to pick off incremental business from Google in those areas where the monetization gap is lower, particularly where it can make up for some of its monetization deficiencies by offering higher revenue shares. Evidence from Microsoft indicates that there is indeed heterogeneity in the quality of its search advertising product, with comparative strength in certain commercial categories, such as travel and people (social) search.[571]

Given this state of affairs, one likely path for Bing to win new syndication business is precisely the one blocked by the exclusivity provisions in Google's syndication agreements. All the publishers that expressed interest in using Bing told us that they want to split up their business, giving Bing opportunities where it can compete, and relying on Google for the balance of their needs.

In addition to the immediate impact on Bing, our investigation suggests that specialty search advertising platforms may emerge in the absence of Google's exclusivity provisions. For example, IAC's CityGrid property sought to build its own advertising platform to serve advertising targeted to local markets.[572] CityGrid monetizes its websites through local ads from small "mom and pop" stores, medium-sized businesses, and large chains that are trying to gain local customers.[573] CityGrid decided that it wanted to build its own advertising network rather than "put all [its] eggs in one basket" by going with Google exclusively.[574]

5 to 10 percent increase in its overall query traffic would be "very meaningful" because Bing is at the lower part of the scale curve where "each percentage point is critical."[579]

While there is not enough evidence on this point to reach definitive conclusions, internal Google documents suggest that Microsoft's view of things may be closer to the truth. Google's interest in renewing deals with some of its largest syndication customers may have been, in part, to keep Microsoft from gaining scale. For example, an internal Google analysis of the 2010 AOL renewal explains:

> AOL holds marginal search share but represents scale gains for a Microsoft + Yahoo! partnership. . . . AOL/Microsoft combination has modest impact on market dynamics, but material increase in scale of Microsoft's search & ads platform.[580]

When a senior Google executive was informed that "Microsoft [is] aggressively wooing AOL with large guarantees," he responded that:

> I think the worse case scenario here is that AOL users get sent to Bing, so even if we make AOL a bit more competitive relative to Google, that seems preferable to growing Bing.[581]

According to Google documents, the company sought to pursue the AOL deal aggressively even though AOL represented "[a] low/no profit partnership for Google. . . ."[582]

While the evidence summarized above is consistent with the theory that these exclusive dealing arrangements are creating anticompetitive effects, there are nevertheless some significant limitations in this evidence. Perhaps our biggest concern is that, today, so few publishers are actively interested in using multiple suppliers. As noted earlier, we have identified only three companies that are subject to the exclusivity or "preferred placement" provisions today and clearly voicing unambiguous concerns: eBay, NexTag, and Business.com. In addition to these three companies, Amazon is not foreclosed today, but voiced very similar concerns and is very worried that it may be subject to exclusivity in the

dynamics as publishers have the opportunity to consider – and test – alternatives to Google's AdSense program. While the speed and strength of these long-term improvements cannot be accurately forecast today, this is a situation where the near-term competitive impacts may be overshadowed by the long-term improvements, as competitive forces are unleashed and additional dynamism emerges.

c. Google's Agreements Are Not Justified By Efficiencies

Google has offered three business justifications for its exclusive and restrictive syndication agreements with publishers. First, Google notes that there is a long-standing industry practice in favor of exclusivity dating from the time when the publishers demanded large, guaranteed revenue share payments regardless of actual performance. However, guaranteed revenue shares are now virtually non-existent.

A second, and related, justification is that Google is simply engaging in a vigorous competition with Microsoft for exclusive agreements. Although Microsoft asserts that it would like the opportunity to compete on a non-exclusive basis (and will happily serve even a small portion of a website publisher's queries), some publishers report that Microsoft itself sought various forms of exclusivity in contract negotiations.[585] Moreover, while Microsoft has aggressively pursued some very large website publishers, it appears that Microsoft is not generally pursuing the broader syndication business today.[586] Google may argue that the fact that Microsoft is losing in a competitive bidding process (and indeed, not competing as vigorously as it might otherwise) is not a basis on which to condemn Google. However, Google has effectively created the rules of today's game, and Microsoft's substantial monetization disadvantage puts it in a poor competition position to compete on an all-or-nothing basis.

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While we acknowledge the limited effects here, it is worth noting that the market for search and search advertising syndication is, inarguably, not robustly competitive today. Google has been unilaterally reducing revenue share percentages to many of its syndication customers (in effect raising prices) with apparent impunity.[589] One of the largest customers, Amazon, decided that it is in its long-term, strategic interest to funnel some query volume to Bing, even if it is losing money on each query.[590] Amazon is using multiple suppliers just to try to foster a more competitive marketplace.[591] Where markets are functioning so poorly, the rationale for government intervention is stronger, even in situations where the near-term competitive harm directly attributable to the challenged conduct may be small. Although this conduct presents a closer question, we believe that Google's exclusive and restrictive agreements have not only helped to maintain, preserve, and enhance Google's monopoly power in the market for search and search advertising syndication (search intermediation), but also in the underlying markets for search and search advertising. Therefore, we believe that the Commission should condemn Google's exclusive and restrictive syndication agreements.

IV. POTENTIAL REMEDIES

Staff has identified several possible remedies to Google's conduct. These remedies are described below.

A. Scraping

There are at least two possible remedies for Google's scraping conduct. *First*, Google could be required to provide an "opt-out" feature to remove "snippets" of website content (*e.g.*, user reviews, ratings) from Google's vertical properties, but retain those

partners considering alternatives to AdSense may grow in the event that these agreements are enjoined.[595]

V.   LITIGATION RISKS

We have identified throughout this memorandum the many substantial risks associated with bringing a case against Google. On a global level, the record will permit Google to show substantial innovation, intense competition from Microsoft and others, and speculative long-run harm. Here, we highlight some specific facts that present the greatest litigation risk:

1.   "Competition is just one click away."[596] Google does not charge consumers, and they are not locked into Google. The durability of Google's monopoly power is questionable with an increasing number of websites (*e.g.*, Facebook, Twitter) competing for user time and advertiser dollars.

2.   Universal Search is a "product improvement" that has resulted in substantial benefit to its users.

3.   Google's organization and aggregation of content from other websites adds value to the product for consumers.

4.   The largest advertisers (that produce the most revenue on Google's AdWords platform and Microsoft's AdCenter platform) already advertise on both AdWords and AdCenter.

5.   The most efficient channel through which Bing can gain scale is Bing.com, not syndication or other distribution channels.

VI. CONCLUSION

Staff concludes that Google's conduct has resulted – and will result – in real harm to consumers and to innovation in the online search and advertising markets. Google has strengthened its monopolies over search and search advertising through anticompetitive means, and has forestalled competitors' and would-be competitors' ability to challenge those monopolies, and this will have lasting negative effects on consumer welfare. Specifically, Staff believes that:

1. Google has unlawfully maintained its monopoly over general search and search advertising, in violation of Section 2, or otherwise engaged in unfair methods of competition, in violation of Section 5, by scraping content from rival vertical websites in order to improve its own product offerings.

2. Google has unlawfully maintained its monopoly over general search, search advertising, and search syndication, in violation of Section 2, or otherwise engaged in unfair methods of competition, in violation of Section 5, by entering into exclusive and highly restrictive agreements with web publishers that prevent publishers from displaying competing search results or search advertisements.

3. Google has unlawfully maintained its monopoly over general search and search advertising, in violation of Section 2, or otherwise engaged in unfair methods of competition, in violation of Section 5, by maintaining contractual restrictions that inhibit the cross-platform management of advertising campaigns.

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[1] *See* Google Inc., File No. 111-0163, Resolution Authorizing Use of Compulsory Process in Nonpublic Investigation (Jun. 13, 2011).

[2] In total, the Commission has issued 20 subpoenas (to Google, Microsoft, Yahoo!, Amazon, eBay, NexTag, TheFind, Living Social, Yelp, Apple, Motorola Mobility, Samsung, Sony, Toshiba, LG Display, RIM, AT&T, Sprint Nextel, T-Mobile, and Verizon) and two voluntary access letters (to Expedia and Trip Advisor).

[3] The investigational hearing of CEO and co-founder Larry Page, originally scheduled for Jun. 29, has been delayed indefinitely due to the illness of Mr. Page. Staff's last scheduled investigational hearing of a Google executive, Andy Rubin (Android founder and head of Google's Android division), is slated for Aug. 23.

[4] Letter from Joaquin Almunia, Vice-President of the European Commission, to Eric Schmidt, Google, dated May 21, 2012 (copy of the letter is on file with Staff).

[5] *Id.*

[6] *See* Discussion Paper Submitted by Google on The Preliminary Concerns Identified by the European Commission and Google's Proposed Solution, attachment to Letter from Maurits Dolmans et al., Cleary Gottlieb Steen & Hamilton LLP, to Cecilio Madero Villarejo, Deputy Director General, European Commission (Jun. 30, 2012) ("Google-EC Settlement Proposal").

[7] The State of Mississippi is also conducting a separate investigation into Google, but is not working with the multi-state group or with the Commission. The Commission declined to grant access to Mississippi due to the state's retainer of an outside law firm to conduct the investigation and the multi-state group's denial of access (on the same basis).

[8] The states have jointly retained economist Rick Flyer as a consulting expert and, potentially, as a testifying expert.

[9] *Kinderstart.com LLC v. Google, Inc.*, 2006 U.S. Dist. LEXIS 82481, (N.D. Cal. Jul. 13, 2006); *Search King, Inc. v. Google Tech., Inc.*, 2003 U.S. Dist. LEXIS 27193, (W.D. Okla. May 27, 2003).

[10] *Person v. Google, Inc.*, 2007 U.S. Dist. LEXIS 47920, (N.D. Cal. Jun. 25, 2007); *Google, Inc. v. myTriggers.com, Inc.*, Franklin County Ohio Civil Division Case No. 09cvh10-14836 (Aug. 31, 2011); *TradeComet.com, LLC v. Google, Inc.*, 693 F. Supp. 2d 370, 378 (S.D.N.Y. 2010) (*aff'd, TradeComet.com LLC v. Google, Inc.*, 647 F.3d 472, 478 (2nd Cir. 2011).

[11] 2006 U.S. Dist. LEXIS 82481, (N.D. Cal. Jul. 13, 2006).

[12] 2003 U.S. Dist. LEXIS 27193, *2 (W.D. Okla. May 27, 2003).

[13] *Id.*

[14] *Kinderstart.com*, 2006 U.S. Dist. LEXIS at *28.

[15] 693 F. Supp. 2d 370, 378 (S.D.N.Y. 2010).

[16] Case No. 09cvh10-14836 (Franklin County Ohio Civil Division, Aug. 31, 2011).

[17] 2006 U.S. Dist. Ct. Pleadings 7297, *3 (N.D. Cal. Apr. 16, 2007).

[18] *Id.* at *10.

[19] *Person v. Google, Inc.*, 346 Fed. Appx. 230, 231 (9th Cir. 2009).

[20] Google owns and operates numerous websites, including: Google Alerts; Books; Finance; Gmail; Images; Maps; News; Google Plus; Product Search; and YouTube.

[21] In a separate investigation, opened in Apr. 2012, FTC Staff is investigating whether Google violated commitments to various standard-setting organizations to license standard essential patents used in the mobile industry on fair, reasonable, and non-discriminatory terms. *See* Google-Motorola, File No. 121-0120, Resolution Authorizing Use of Compulsory Process in Nonpublic Investigation (May 25, 2012).

[22] Google FY 2012 Form 10-K (Jan. 26, 2012), at 29, *available at* http://sec.gov/Archives/edgar/data/1288776/000119312512025336/d260164d10k.htm#toc260164_8. ("Google 2012 10K").

[23] *Id.* at 25.

[24] Press Release, Microsoft Corp., MSN Significantly Upgrades MSN Search for Consumers with Major Performance and Relevancy Improvements (Jun. 30, 2004) http://www.microsoft.com/presspass/press/2004/jun04/06-30ImprovedSearch2004PR.mspx.

[25] Press Release, Microsoft Corp., Microsoft's New Search at Bing.com Helps People Make Better Decisions (May 28, 2009) http://www.microsoft.com/presspass/press/2009/may09/05-28NewSearchPR.mspx.

[26] *See* Microsoft Corp., Complaint to the European Commission (Mar. 31, 2011) ("Microsoft EC Submission").

[43] Varian Tr. 88:16-89:7 ("Brand perception is driven to some extent by other [non-search] forms of advertising ... We know, for example, that display ads drive brand; brand drives clicks"); Schmidt Tr. 130:18-21 (a brand advertisement would be a Coca-Cola advertisement that is not trying to get you to buy a Coke, but trying to get you to *think* about Coke); Wal-Mart IR (Jan. 23, 2012); Fox Studios IR (Jan. 20, 2012); Verizon IR (Nov. 1, 2011); EAS IR (Feb. 23, 2012).

[44] *See* Statement of Federal Trade Comm'n Concerning Google/DoubleClick, FTC File No. 071-0170 (2007), at 5. *See also* Interpublic IR (Oct. 20, 2011); Didit.com IR (Dec. 27, 2011).

[45] Contextual ads are somewhat more successful at creating conversions than direct display ads, but less successful than search. Contextual advertising is considered a closer substitute for display advertising than for search advertising in terms of function and performance. *See, e.g.,* Group M IR (Oct. 11, 2011); Expedia IR (Jan. 23, 2012). *See also, e.g.,* **GOOG-ITA-03-0045511-17** (2009), at 16 ("content conversions do not lead to sales like search conversions"); Brin Tr. 181:1-8 ("the conversions are different. The click-through is also different . . . . So between the two of those, your average content page view is worth significantly less than your average search page, no question about it").

[46] *See* Didit.com IR (Dec. 27, 2011); **GOOGFOX-000073028** (2008), at 14. "Re-targeting" means serving ads to users that have abandoned purchases before completed, or who have visited certain websites in the past. Like search, this type of ad is meant to elicit a direct response, but – unlike search ads – re-targeted ads are not shown in response to a user's declared intent. Clickable IR (Oct. 24, 2011) (re-targeted display advertising requires advertisers to act on behavioral calculations and inferences from large troves of data, and does not generate leads or sales as well as search advertising).

[47] *See* Didit.com IR (Dec. 27, 2011); Wal-Mart IR (Jan. 23, 2012). Social media advertising appears to be more like display advertising in that it offers a large volume of impressions, but relatively few conversions. *See* Facebook IR (Jul. 1, 2011); Facebook IR (Jan. 24, 2012). *See also* Matt Lawson, *How to Integrate Search and Social Media for Better Results*, Mashable, Apr. 1, 2010, *http://mashable.com/2010/04/01/paid-search-social-media/* (Director of marketing for Marin Software discussing how to develop and integrate paid search and social media advertising strategies; social and search advertising are "two distinctly different tactics – the bid-based, conversion-obsessed, ROI-driven world of paid search and the experimental, brand-building, hard-to-measure world of social . . . each provide different benefits to your business, so you should leverage their strengths instead of trying to get them to deliver results that aren't suited to the medium. Marketers usually participate in social media to create an active dialogue with consumers around their products and services, with the main goal of building brand value, and a secondary goal of driving sales. On the other hand, marketers use paid search primarily to drive sales, leads, and conversions, and don't expect the short text of their paid search ads to do much for branding").

[48] Contextual advertising is limited by the amount of advertising space available on web pages addressing any given topic, in which relevant ads can then be served. Re-targeted (or behavioral) advertising is limited by the number of "cookies" users allow to be placed on their computers (and on how often those cookies are erased), and also requires guesswork and heavy analysis on the part of the advertiser. *See* **GOOGFOX-000073028** (2008), at 13; Interpublic IR (Oct. 20, 2011); **FTC-EBAY-00000002** (2012), at 31 (eBay and Shopping.com spent an "insignificant" amount on contextual advertising). **FTCNext-00000002** (2012), at 36 (non-search advertising cannot replace search advertising). Social media is still a maturing market, which remains quite small. Moreover, neither Facebook nor Twitter has been very successful in generating conversions, despite the information they have available on the interests of their users (*see* Facebook IR (Jul. 1, 2011; Jan. 24, 2012); Twitter IR (Dec. 13, 2011)), and both Living Social and General Motors have pulled the majority of their social media budgets based on a failure to achieve acceptable conversion rates. *See* Living Social CID Response (2012), at 17; Joan Muller, *GM Says Facebook Ads Don't Work, Pulls $10 Million Account*, Forbes, May 15, 2012, *available at* http://www.forbes.com/sites/joannmuller/2012/05/15/gm-says-facebook-ads-dont-work-pulls-10-million-account/.

[49] Braddi Tr. 11:22-12:2.

[50] *Id.* at 26:8-27:8.

[51] Staff continues to investigate Google's conduct in the mobile arena, and will address these issues in a supplemental memorandum.

[52] Google purchased the Android business in 2005.

[53] Since Google's release of the first commercially available mobile device running Android OS in October 2008, Android's market share has grown exponentially. In Sep. 2009, Apple garnered 24.1 percent share of

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[58] *See* Brin Tr. 142:3-144:9, 169:1-19 (Google tracks user clicks to improve quality, citing early NavBoost algorithm as example of signal that relied heavily on user clicks); Schmidt Tr. 61:17-24 ("So clicks matter in terms of feedback to the people who monitor these things. They say our algorithm needs to be improved"). *See also e.g.,* **GOOGPAGE-000004652** (2008) ("[Click-tracking is] used to track which search results a user selects. That information then feeds back into our search ranking"); **GOOGBRIN-000005558** (2002), at 9 ("Traffic/Quality Effect. The more traffic we generate and usage data we collect, the better our overall [ad] quality."); **GOOGMAYE-000044916-21** (2004), at 18 (Brin notes that "[w]e could take advantage of our scale more. [H]ave 1000 or 10000 people feeding information into our algorithms").

[59] Manber Tr. 54:5-56:15 (describing various uses for experiments); Declaration of Satya Nadella, Senior Vice President, Online Services Division, Research and Development, In Re Google/ITA (Department of Justice) (2011), at 4 ¶10(d) ("Almost all innovations on the SERP . . . go through a formal experimentation process before they are released, and often there are several rounds of experimentation") ("Nadella Decl.").

[60] **FTC-0000236-44** (2005), at 38 (2005 Founders' Letter).

[61] Manber Tr. 57:15-23 (when Manber ran the search quality team, Google was running approximately 5,000 experiments a year, or about 15 experiments per day, simultaneously); Brin Tr. 160:2-9 (multiple experiments are run simultaneously, with each typical experiment using approximately one to two percent of total user volume). Microsoft runs approximately ten experiments simultaneously. Microsoft Corp., "Microsoft Response to DG Comp RFI" (Nov. 21, 2011), at 78.

[62] Susan Athey, "Scale in Online Search" (Mar. 10, 2012), at 10-11; Nadella Decl. at 4 ¶10(d).

[63] Susan Athey, "Scale in Online Search" (Mar. 10, 2012), at 10-11 ("Today, Microsoft has relatively few users it can use for experiments and there is a limit to the number of parallel experiments that a single query can be part of without compromising the robustness of the results").

[64] Microsoft asserts that additional query volume will also help its algorithms to determine what web pages to crawl and index, based on observed user interest of similar web pages. Susan Athey, "Scale in Online Search" (Mar. 10, 2012), at 6-7; Microsoft Corp., "Microsoft Response to DG Comp RFI" (Nov. 21, 2011), at 63 ("Queries are a critical component of the user data necessary to identify and rank URLs and documents for inclusion in a search index"). Moreover, while Bing maintains an index of approximately 43 billion documents (as of November 2011), it "serves" only 16 billion of those documents. The remaining 27 billion web pages have not been clicked on recently enough (if ever) to give Bing's algorithms a sense as to "whether they are suitable" or relevant to user queries. *Id.* at 63. Google served more than 200 billion documents, at last estimate, according to Sergey Brin, who testified that Google reached this point several years ago. Brin Tr. 339:14-23. It does not appear that Google relies on query volume in order to determine what to index. Udi Manber testified that Google indexes everything it can. Manber Tr. 34:24-25.

[65] **CX-129 (GOOGMANB-000029871-75)** (2009), at 73.

[66] *See* Schmidt Tr. 119:24-120:8 (". . . . Think of it this way, advertisers don't put in one ad. They put in a thousand ads against different keywords and different combinations. So if you have a thousand advertisers and a thousand such combinations, you have a million ads that you can choose from. So that's clearly better than having a hundred ads – right – because you can [pick] the one which is – you know, the person who wants camping equipment that's blue in New Hampshire"); Brin Tr. 192:10-14 ("Having a good selection of advertisers to choose from definitely helps having the option of producing a good ad, no question"); *id.* at 193:20-24 (agreeing that having more ads means that Google is more likely to have the right ad for the right user at the right time). *See also, e.g.,* **CX-81 (GOOGROSE-000013304-12)** (2004), at 6 ("More advertisers (and the ads they bring with them) increase overall ads quality by increasing the number of total 'choices.' This is yet another example of a positive feedback and/or scale effect").

[67] *See* Schmidt Tr. 73:2-23 ("Having more advertisers fills out your offering. . . . [I]f you have one advertiser, only one, and then the ad is – is – the wrong ad – obviously, more advertisers up to some point of diminishing returns does actually kind of fill out your portfolio"); Wojcicki Tr. 110:16-22 ("Well, I think when we have more advertisers we're able to cover more topics"). *See also e.g.,* **GOOGBRIN-000019771** (undated, c. 2004), at 51 ("More advertisers improves partner monetization: more ads on more queries (coverage, CTR). More competitive auction (CPC). Overall, higher monetization (RPM)").

[68] *See* Brin Tr. 171:24-173:6 (Google relies on what ads a user clicks on and how the user engages with the ad to determine whether to show an ad, how to rank the ad, and how to price the ad); Schmidt Tr. 78:13-22 (more ads gives a search engine "more at-bats," or "more opportunities to show that ad"); Wojcicki Tr. 104:17-19, 105:20-106:9 (testifying that "we determine relevance mostly by do we see the users have clicked on these

publishers and advertisers"). *Cf.* **GOOGFOX-000025982-83** (2010), at 82 (noting that recent press article is "premised on the notion that MSFT and Yahoo are not able to take full ad revenue advantage of their search query share, which may be true").

[76] *See* Schmidt Tr. 74:3-8 (agreeing generally with the concept of the "virtuous cycle," and testifying that "[t]hese are scale business[es]. You want to get to scale. . . . Larger indices; more advertisers; obviously, more revenue; more reach . . . those sorts of things."); *id.* at 85:8-87:20; Brin Tr. 225:17-227:4 (agreeing generally with the concept of the "virtuous cycle"). *See also* Preston McAfee, Presentation, "Scale, Data, and Machine Learning: Solving the Search Problem" (2011), at 6 ("scale, liquidity, and access to data results in a virtuous cycle"); Microsoft EC Submission at 17 ("for smaller search engines, scale generates a 'virtuous cycle' that rapidly improves quality").

[77] *See* Schmidt Tr. 178:17-179:5 (". . . . There's some evidence . . . that we're past the point where there's any particular benefit of using the user . . . information to improve [search quality on tail queries]. In other words, we have enough users already that more users don't make it much better."); *id.* at 284:3-286:18 (same); Brin Tr. 145:7-153:6 (discussing scale curve and diminishing returns; testifying that, while data sources are "still valuable, but you know, . . . you'd have to like double or ten times them to get you know, materially better"; agreeing that Google's search quality will not improve significantly based on additional queries today; and testifying that if Google had 10-20 percent fewer queries today, this would create a "pretty marginal difference" in search quality); Manber Tr. 150:14-23 ("Well, obviously, after a while, there's a diminishing return for data."). *See also e.g.,* **CX-129** (**GOOGMANB-000029871-75**) (2009), at 73 (Google chief economist Hal Varian argues that increases in data are subject to "diminishing returns"); Michael L. Katz et al., "An Economic Analysis of Microsoft's Allegations that Google's Conduct Harms Competition by Reducing Bing's Scale" (May 14, 2012), at 46 ("Benefits of scale in search are subject to diminishing returns. Click-and-query data are an important input to Google's search algorithms, but the value of incremental data in providing relevant search results decreases as the amount of data available to those algorithms increases"); *id.* at 104 ("the effect of incremental advertisers on search monetization are subject to diminishing returns").

[78] Brin Tr. 154:5-14. Brin did not state this premise as a mathematical certainty, only as an illustration of the "diminishing returns" curve. Preston McAfee, Yahoo!'s former chief economist, suggested that "having 2-3 times as many user observations," particularly for "tail" queries, would result in substantially more than a one percent increase in quality – indeed, doubling a search engine's queries would be "an enormous advantage." McAfee suggested that a 3-to-1 advantage in query volume could result in a 70 percent increase in "precision" for that search engine's ability to answer unique queries. Preston McAfee, Yahoo!, Presentation, "Scale, Data, and Machine Learning: Solving the Search Problem" (2011), at 8.

[79] *See* Brin Tr. 154:15-158:18 (testifying that, based on publicly available information of Microsoft's query volume, he doesn't believe that additional query volume would significantly improve Microsoft's search quality). *See also* Michael L. Katz et al., "An Economic Analysis of Microsoft's Allegations that Google's Conduct Harms Competition by Reducing Bing's Scale" (May 14, 2012), at 47 (arguing that, "because of the diminishing value of additional click-and-query data and Bing's substantial and growing query volume, it is unlikely that query data from Google's exclusive syndication and distribution arrangements would provide any considerable value to Bing"); *id.* at 104-105 (Microsoft already has a significant number of advertisers; any increase in ads volume or clicks would result in insignificant additional yield).

[80] *See* Microsoft EC Submission, at 26 ("The marginal returns for additional scale decrease once a platform reaches a certain scale") (Mar. 31, 2011); Susan Athey, "Scale in Online Search" (Mar. 10, 2012), at 9 ("as query volume grows, RPS grows quickly at first and then becomes flatter, as more and more of the most important advertisers have already been attracted to the platform").

[81] Microsoft estimates that, in 1997, the size of the world wide web was approximately 200 million web pages; by 2008, the figure was approximately 1 trillion web pages; and today, there are anywhere between 5 and 20 trillion web pages. Susan Athey, "Scale in Online Search" (Mar. 10, 2012), at 11. *See also e.g.,* Schmidt Tr. 33:15-25 ("the rate of growth of the Internet appears to be accelerating, so it's getting – it's getting worse faster, if you will, primarily because of generation of . . . user content").

[82] Susan Athey, "Scale in Online Search" (Mar. 10, 2012), at 11.

[83] *Id.* To this end, Microsoft conducted an experiment in 2008 that tested the effect on user engagement of reversing algorithmic improvements. Microsoft found that, when it moved back to two-year-old algorithms (essentially eliminating two years' worth of user data), the search engine "significantly reduced user engagement" with Microsoft's search engine. *Id.* at 13. Google came to the same conclusion when it removed

Sherman, *Google Introduces Book Searches*, Search Engine Watch, Dec. 16, 2003, http://searchenginewatch.com/article/2065619/Google-Introduces-Book-Searches (Google launched Google Print on Dec. 16, 2003);The above citations are linked-to from, Google's Official Webpage, Our History In Depth, http://www.google.com/about/company/history/#2012 (last visited Jul. 31, 2012).

[100] Mayer Tr. 67:3-18.

[101] **GOOG-Texas-1325832-33** (2010), at 33.

[102] **GOOG-Texas-1486915-70**, at 28-29. Numerous documents demonstrate Google's recognition of this vertical threat. *See, e.g.*, **GOOG-ITA-05-0012603-16** (2009), at 4-5 ("Some vertical aggregators are building brands and garnering an increasing % of traffic directly (vs. through Google); ... Strong content is improving aggregator organic rankings and generating higher quality scores, giving them more free and/or low-CPC traffic; ... A growing % of finance/travel category queries are navigational vs. generic (e.g., southwest.com vs. cheap airfare). This demonstrates the power of these brands and risk to our monetizable traffic"); **GOOG-ITA-04-0004120-46** (undated, c. Feb. 2009), at 11 (presentation discussing the "vertical specialist challenge," and noting that the "potential threats to Google" included "*generic product searches* moving from Google ... to Vertical aggregators," "Vertical Aggregators taking *higher share of 'last clicks'* before sale," and "merchants increasing *% of spend on aggregators* ... vs. Google") (emphasis in original). CX-158 (**GOOG-ITA-06-0021809-13**) (2005), at 10 (email from Bill Brougher, a Google product manager, stating, "what is the real threat if we don't execute on verticals? (a) loss of traffic from google.com because folks search elsewhere for some queries; (b) related revenue loss for high spend verticals like travel; (c) missing opty if someone else creates the platform to build verticals; (d) if one of our big competitors builds a constellation of high quality verticals, we are hurt badly."); **GOOGWRIG-000069488-524** (2008), at 489 ("Google's core business is monetizing commercial queries. If users go to competitors such as Amazon to do product queries, long-term revenue will suffer."); **GOOG-Texas-0274944-47** (2009), at 44 (discussing creation of a slide for the Google Board of Directors about verticals from a search perspective, i.e., "users going to aggregators rather than [G]oogle for specific queries" and an ads perspective).

[103] *See, e.g.*, **GOOG-ITA-04-0063246-55** (2009), at 47 (presentation laying out "four key vertical growth opportunities," including finance (EU), travel, local, and retail). Most recently, Google has introduced its own social product, Google Plus, which competes with Facebook, Twitter, and other social networking sites. *See* Twitter IR (Dec. 13, 2011); Facebook IR (Jan. 24, 2012).

[104] By March of 2004, Google had launched the Beta form of a local vertical property to handle local queries. Juab Carlos Perez, *Google Offers New Local Search Service*, InfoWorld, Mar.17, 2004, http://www.infoworld.com/t/applications/google-offers-new-local-search-service-561.

[105] *See, e.g.*, **GOOG-Texas-0197410-14** (2008), at 10 (preparing presentation for executives showing Amazon queries increasing and Google's flat or declining, as "a strategic justification for the Product Search Movement"); **GOOG-Texas-0971713-27** (2008), at 13 (presentation discussing investing in content acquisition to win maps/local). For example, in shopping, Google committed to massive investment, introduced a new version of its shopping vertical, and introduced new ways of displaying information from the vertical. In 2006, Google decided that its comparison shopping site, Froogle, had failed, and decided to stop working on or promoting Froogle, while it worked on its new shopping product, Google Product Search. **GOOGEC-0076341-42** (2006), at 41; **GOOG-Texas-0213227** (2006). Accordingly, the traffic to Froogle fell dramatically. Google launched Google Product Search to replace Froogle in Apr. 2007. Danny Sullivan, *Goodbye Froogle, Hello Google Product Search*, Search Engine Land Apr. 18, 2007, http://searchengineland.com/goodbye-froogle-hello-google-product-search-11001; **GOOG-Texas-0216363** (2007) (discussing launch of Google Product Search the following week). Shortly afterward, in May 2007, Google launched the product universal. *See* Press Release, Google Inc. Google Begins Move to Universal Search, Release (May 16, 2007), previously available at http://www.google.com/intl/en/press/pressrel/universalsearch_20070516 (accessed Feb. 1, 2012, since removed from this URL, copy saved by Staff); David Bailey, *An Insider's View of Google's Universal Search*, previously available at http://searchengineland.com/an-insiders-view-of-google-universal-search (accessed February 1, 2012, since removed from this URL, copy of article saved by Staff).

[106] *See* CX-157 (**GOOG-Texas-0213579-580**) (Oct. 5, 2009), at 580 (including slide for Google Board presentation, "Vertical Search: Making progress on multiple fronts," identifying Google verticals in images, books, products, news, travel, health, real estate, finance, and mortgages). Google launched Google Finance on Mar. 21, 2006. AC Narendran & Katie Jacobs Stanton, *Spring is the Season for Love (and Data)*, Google, Mar.

[119] For example, in 2008, Google had the goal to "[i]ncrease google.com product search inclusion to the level of google.com searches with 'product intent', while preserving clickthrough rate." **GOOG-Texas-0227159-66** (2008), at 60 ("2008 goal" for "Google.com Integration"). Google had a goal for the first quarter of 2008 to increase the triggering of the Product Universal to 6% for English sites. **GOOG-Texas-0236963-65** (2008), at 63. In the second quarter of 2008, that goal changed to increasing top OneBox coverage by 50 percent and top CTR by 10 percent, and to "[i]ncrease coverage on head queries. For example, we should be triggering on at least 5 of the top 10 most popular queries on amazon.com at any given time, rather than only one." **GOOG-Texas-0227159-66** (2008), at 60. To increase triggering on head queries, Google also implemented a change to trigger the Product Universal on google.com queries if they appeared often in the product vertical. "Using Exact Corpusboost to Trigger Product Onebox" compares queries on www.google.com with queries on Google Shopping, triggers the Product OneBox if the same query is often searched in Google Shopping, and automatically places the universal in position 4, regardless of the quality of the universal results or user "bias" for top placement of the box. **GOOGLR-00330279-80** (2008) (Launch Report for algorithm change).

[120] *See, e.g.*, **GOOG-Texas-0233970** (2007) (mandate from executive meeting to increase appearance of Universal Search results for all product-related queries as quickly as possible); **GOOG-Texas-1004148-52** (2007), at 48 ("Larry thought product should get more exposure"); **GOOG-ITA-04-0004120-46** (2009), at 36 (presentation stating that Google could take a number of steps to be "#1" in verticals, including "[e]ither [getting] high traffic from google.com, or [developing] a separate strong brand," and asking: "How do we link from Search to ensure strong traffic without harming user experience or AdWords proposition for advertisers?"); **GOOGFOX-000082469** (2009), at 4 (presentation notes that Mortgage OneBox on Google.com "drives traffic to consumer front end"). In order to speed up market share in shopping for Google, the shopping team wanted a "strategic direction to dial up google.com inclusion," and had a list of session metrics showing Google at #8 behind eBay, Amazon, Shopping.com, Shopzilla, etc. **GOOG-Texas-0197424-29** (2008), at 24.

[121] **GOOG-Texas-0191859-61** (2008), at 59 (reducing the frequency of the product universal would "ced[e] recent share gains to competitors"); **GOOG-Texas-0214339** (2008) (Jen Fitzpatrick noting, "Long term, the product search team feels strongly that PS-universal is critical to maintain and increase the share of product-related (and therefore highly commercial) queries that people do on Google."); **GOOGEC-0069974** (2009) (email from John Hanke, head of Google Local, to Marissa Mayer, "long term, I think we need to commit to a more aggressive path w/ google where we can show non-webpage results on google outside of the universal 'box' ... most of us on geo think that we won't win unless we can inject a lot more of local directly into google results."); **GOOG-Texas-0199877-910** (2008), at 909 ("Google's key strengths are: Google.com real estate for the ~70MM of product queries/day in US/UK/DE alone"); **GOOG-Texas-0909676-77** (2009), at 76 (John Hanke noting, "I think the mandate has to come down that we want to win [in local] and we are willing to take some hits [i.e., trigger incorrectly sometimes]. I think a philosophical decision needs to get made that results that are not web search results and that displace web pages are "OK" on google.com and nothing to be ashamed of. That would open the door to place page or local entities as ranked results outside of some 'local universal' container. Arguably for many queries _all_ of the top 10 results should be local entities from our index with refinement options. The currently mentality is that the google results page needs to be primarily about web pages, possibly with some other annotations if they are really, really good. That's the big weakness that bing is shooting at w/ the 'decision engine' pitch – not a sea of pointers to possible answers, but real answers right on the page. ...").

[122] In the spring of 2008, Google estimated that the top placement of the Product Universal would lead to an "annualized loss of $154 million" on product queries. **GOOG-Texas-0178597-607** (2008), at 598 ("Product Search Universal Holdback Experiment"). The advertising team requested that the Product Universal trigger less frequently to reduce the loss of ads revenue. The Product Search team objected, presenting to executives that: Google must retain and grow product queries: "We face strong competition and must move quickly. Turning down onebox would hamper progress as follows – Ranking: Losing click data harms ranking; [t]riggering Losing CTR and google.com query distribution data triggering accuracy; [c]omprehensiveness: Losing traffic harms merchant growth and therefore comprehensiveness; [m]erchant cooperation: Losing traffic reduces effort merchants put into offer data, tax, & shipping; PR: Turning off onebox reduces Google's credibility in commerce; [u]ser awareness: Losing shopping-related UI on google.com reduces awareness of Google's shopping features." **GOOG-Texas-0178597-607** (2008), at 607. Rather than reducing triggering of the Product Universal, Google moved it down from position 1 to position 4 on the page, which reduced some cannibalization from the ads. *See infra* note 138.

position, if users clicked on other lower-ranked properties, the property's rank would gradually decrease. Click-through rate is an important factor in determining the relevance of other websites. *See supra* p. 14.

[135] Mayer Tr. 275:10-276:11.

[136] Co-occurrence signals were used in many vertical areas. Regarding Google Product Search, *see, e.g.,* Mayer Tr. 272:7- 277:8 (explaining that Google used the occurrence of comparison shopping engines at positions 1-3 in the web ranking to boost Google's product universal to position one, because a CSE would appear if it has a highly relevant product to the query, and, thus, Google Product Search must also have a highly relevant product) (*citing* **GOOG-Texas-0214363** (2009)). *See also* **GOOGLR-00161978-80** (2009), at 78 (launch report entitled "Product universal top promotion based on shopping comparison [site] presence" that relies on a list of "blessed sites" to trigger top promotion of product universals); **GOOGLR-00162103** (2009) (listing sites). Regarding Google Local, a local sites trigger – using, for example, CitySearch and Yelp – appears to have been introduced in 2007, *see* **GOOGLR-00297666-69** (2007), at 66 ("added a 'cooccurring sites' signal to bias ourselves toward triggering when a local-oriented aggregator site (i.e. Citysearch) shows up in the web results"); **GOOG-Texas-1324737-39** (2009), at 38-39 ("final trigger … includes web-based signals such as yelp et al"). Regarding Google Books, Google used Amazon as a trigger, *see* **GOOG-Texas-0196298** (2009) (For books, we use Amazon as co-occurring site"). Google appears to have considered a trigger for the finance "OneBox" based on the presence of finance sites in organic results, but it is not clear it was launched. **GOOGLR-00257663-75** (2008), at 68.

[137] *See* **GOOGEC-0066150** (2009); **GOOGLR-00162615-17** (2009), at 15. Google has provided some evidence that it has discontinued this practice with respect to Google Product Search in Dec. 2010.

[138] Google did, at times, lower the position of certain Universal Search results. For example, in 2008, Google's search quality team recognized that Google Product Search results were often of poor quality. *See* **CX-168** (**GOOG-Texas-0214363**) (2009); **GOOGWRIG-000041022-23** (2009), at 22; **GOOG-Texas-0197396** (2009); **GOOG-Texas-0180522** (2008), at 22 ("With regard to middle/top threshold, raters say it goes at the top but clicks metrics suggest middle"). Around the same time, the Google advertising team expressed concern that the photos, pricing information, and other rich data provided by the Google Product Search diverted users' attention from ads, resulting in fewer clicks on ads. In the spring of 2008, Google estimated that the top placement of Google Product Search would lead to an "annualized loss of $154 million" on product queries. **GOOG-Texas-0178597-607** (2008), at 598 ("Product Search Universal Holdback Experiment"). In response to both concerns, Google launched a series of "aggressive demotions" to move most Google Product Search results down a few positions on the SERP. *See* **GOOG-Texas-0178597-607** (2008), at 598 ("Product Search Universal Holdback Experiment") ("We are executing an aggressive plan to further improve google.com user experience for products that we estimate will reduce annualized loss from ~$130mm to ~$45MM within 4 weeks"); **GOOG-Texas-0214409-11** (2008), at 9 (Nick Fox writes that "the product search team said they were going to do a bunch of things to dramatically reduce the negative [revenue] impact of the product …."); **GOOG-Texas-0178597-607** (2008), at 605 (estimating that these changes would result in the percentages of Google Product Search in positions 1, 4, and 10 going from "85/0/15" to "40/35/25," and a corresponding reduction in loss of advertising revenue from $154 million to $70 million). Specifically, in Jul. 2008, Google made three algorithm changes to "aggressively demote" more top OneBoxes to middle OneBoxes. **GOOGMANB-000056049-54** (2008), at 50. These were: (1) "Product Search Universal Triggering 2.0 [which] mainly moves them to a lower position", *id.*, (2) "Using Exact Corpusboost to Trigger Product Onebox", which compares queries with queries on Google Shopping, triggers the Product OneBox if the same query is often searched in Google Shopping, and automatically places the universal in position 4, **GOOGLR-00330279-80** (2008), at 79 (Launch Report for algorithm change); and (3) "Aggressive Demotion to Middle for Product Universal," which demotes from position one to position four if the product OneBox does not meet a higher relevance threshold, the first web result is navigational with high probability, or two out of the top three results are for a manufacturer. This change demoted about 51 percent of top product OneBoxes to the middle). **GOOGMANB-000055473-76** (2008), at 73-74 (Launch Report for algorithm change). *See* **CX-168** (**GOOG-Texas-0214363**) (2009); **GOOG-Texas-0197396** (2009). The "aggressiveness" of the demotion effort is debatable, as Google continued to display Google Product Search results in the fourth position. And even these minor demotions were apparently quite controversial within Google. For example, Marissa Mayer "threatened to come to quality launch review to defend keeping product universal at [position] 1." **GOOGWRIG-000041022-23** (2009), at 22. In any event, these demotion efforts were short-lived, as Google quickly moved Google Product Search

Google does not allow comparison shopping sites to advertise in ads with graphics such as Product Listing Ads and Product Extension Ads which have higher clicks and conversions than text ads).

[153] *See* Response to the Microsoft Economist Report on "Anticompetitive Organic Search Manipulation" (Jul. 7, 2011) (stating the Panda update "was designed to ensure a higher ranking for high-quality sites with original content and information and reduce the ranking of, inter alia, 'content farms,' *i.e.*, low-quality ad-oriented websites, typically containing content copied from other websites."); Economic Response to the Complaints by Foundem and Ejustice.fr - RBB Economics (May 12, 2010) ("... Google applies a set of rules designed to prevent sites that contain inappropriate content, malware or non-original content from showing up high in its search and ad results."). *See also* Google's Webmaster Guidelines, Little or No Original Content, http://support.google.com/webmasters/bin/answer.py?hl=en&answer=66361 (last visited Jul. 2, 2012)

[154] Although Google originally sought to demote *all* comparison shopping websites, after Google raters provided negative feedback to such a widespread demotion, Google implemented the current iteration of its so-called "diversity" algorithm. *See* **GOOG-Texas-0179485-92** (2006), at 85 (identifying shopping comparison sites for demotion); **GOOGEC-0148152-56** (2007), at 53 (testing algorithm that would result in "SERP declines between 8 and 20 percent" for shopping comparison sites); **GOOGMANB-000007246-47** (2007), at 46 (launching the algorithm in Dec. 2007). Google claimed that the goal of this algorithm was to "increase the diversity of Google's search results for product related queries." *See* Response of Google to DG Comp (Nov. 22, 2010), at § 2.2, p.1.

Initially, Google compiled a list of target comparison shopping sites and demoted them from the top 10 web results, but users preferred comparison shopping sites to the merchant sites that were often boosted by the demotion. **GOOGSING-000014116-17** (2006), at 16-17 ("We had moderate losses when we promoted an etailer page which listed a single product because the raters thought this was worse than a bizrate or nextag page which listed several similar products. Etailer pages which listed multiple products fared better but were still not considered better than the meta-shopping pages like bizrate or nextag.. ..."). Google then tried an algorithm that would demote the CSEs, but not below sites of a certain relevance. **GOOGEC-0168032-33** (2006), at 32. Again, the experiment failed, because users liked the quality of the CSE sites. **GOOGSING-000014375-76** (2006), at 75 ("The bizrate/nextag/epinions pages are decently good results. They are usually well-forma[t]ted, rarely broken, load quickly and usually on-topic. Raters tend to like them. I make this point because the replacement pages that we promote are occasionally off-topic or dead links. Another positive aspect of the meta-shopping pages is that they usually give a variety of choices. ... The single etailer pages tend to be single product pages. For a more general query, raters like the variety of choices the meta-shopping site seems to give.") Google tried another experiment which kept a CSE within the top 5 results if it was already there, but demoted others "aggressively." *Id.* at 76. This too resulted in slightly negative results. *Id.*

Unable to get positive reviews from raters when Google demoted comparison shopping sites, Google changed the raters' criteria to try to get positive results. Previously, raters judged new algorithms by looking at search results before and after the change "side-by-side" (SxS), and rated which search result was more relevant in each position. **GOOGEC-0168014-27** (2007), at 25. After the first set of results, Google asked the users to instead focus on the diversity and utility of the whole set of results, rather than result by result, telling users explicitly that "if two results on the same side have very similar content then having those two results may not be more valuable than just having one." *Id.* at 23. When Google tried the new rating criteria with an algorithm which demoted CSEs such that sometimes no CSEs remained in the top 10, the test again came back "solidly negative." *Id.* at 19. Google again changed its algorithm to demote CSEs only if more than two appeared in the top 10 results, and then, only demoting those beyond the top two. With this change, Google finally got a slightly positive rating in its "diversity test" from its raters. *Id.* at 16; **GOOGEC-0148152-56** (2007), at 52 ("Launch Report: Shopping Comparison Demotion"). Google finally launched this algorithm change in Jul. 2007. **GOOGEC-0014649** (2007) (launching at one Google data center); **GOOGMANB-000007246-47** (2007), at 46 (launching to all remaining Google data center).

[155] Brent Rangen, *Google Goes Boom on Low Quality Sites . . . So They Say*, Search Engine Watch, Feb. 25, 2011, http://searchenginewatch.com/article/2049961/Google-Goes-Boom-on-Low-Quality-Sites...So-They-Say; Amit Singhal & Matt Cutts, *Finding More High Quality Sites in Search*, Google Blogspot, Feb. 24, 2011, http://googleblog.blogspot.com/2011/02/finding-more-high-quality-sites-in.html.

[156] Google determined which websites would be demoted in two ways. *First*, Google had a group of "spam raters" manually rate whether certain websites would be labeled as "content farms," and thus, subject to demotion. **GOOGHUFF-000089790-93** (2011), at 91. Google provided specific instructions for its spam

off by 31% and 25% respectively"); Shopping.com Data Submission (2012) (showing drop in visits from 1.62 million to 1.17 million for the weeks before and after the second Panda algorithm launched in the first week of Apr. 2011); Dealtime Data Submission (2012) (showing drop in visits from 1.38 million to 0.508 million in the weeks before and after Panda initially launched in Feb. 2011). The drop in traffic to those websites also affects merchants, who prefer getting traffic from multiple sources. The monthly traffic from Pricegrabber and Shopping.com to Amazon dropped from the end of Feb. 2011 through the end of Oct. by, respectively, 35 percent and 30 percent. Amazon CID Response at 13. In addition, while traffic from Feb 2010 to 2011 increased 99 percent, traffic from May 2010 to 2011 decreased by 12 percent. *Id.* at 14. Staff has collected evidence of several declines in traffic to other competing verticals due to changes to Google's SERP. *See, e.g.*, **FTC-NEXT-00000005** (2012), at 70 (2007 search result page removal resulted in drop from about 900,000 to about 500,000 visits).

[168] *See, e.g.*, **GOOGEC-1068069-72** (2009), at 70 (Comparison Shopping Demotion – "This project is likely to affect traffic flow to comparison shopping sites. The document located at [cited document] gives a detailed account of how this affects the number of impressions of various sites. The sites that lose the most impressions are, as expected, comparison shopping sites. The sites gaining impressions are retailers and even some government and edu sites."); **GOOGEC-0148152-56** (2007), at 53 (Comparison Shopping Demotion – "The large comparison shopping sites see SERP declines between 8 and 20%"); **GOOGEC-0015560-66** (2007), at 60 (With respect to removing search result pages from the index, "In the end here the various Google impressions the stores will be losing (not necessarily traffic to the stores, but correlated): ebay – 3.6M impressions, amazon – 2.3M, dealtime – 150K, epinions – 200K, kelkoo – 620K, overstock – 50K, pricegrabber – 70K, shopping.com – 500K").

[169] *See, e.g.*, **GOOG-Texas-1265906** (2010) (email noting that Google's local property now "dwarfs all other local sites in the world"); **GOOGFOX-000029790** (2011) (discussing traffic increase since launch of Google Advisor vertical).

[170] **GOOG-Texas-0199877-910** (2008), at 906. In its new iteration, Google Product Search took traffic from competing comparison shopping sites, despite some "pretty terribly embarrassing failures" with regard to returning relevant product results. *See* **GOOGWRIG-000041022-23** (2009), at 22. *See also* **GOOG-Texas-0192014-18** (2010), at 16 (email noting that Google's product universal has increased shopping queries on Google) and, related, **GOOG-Texas-0004101-04** (2010) ("Product OneBox Traffic Impact Analysis").

[171] **GOOG-Texas-0199877-910** (2008), at 907.

[172] **GOOG-Texas-0265014-16** (2010), at 14.

[173] NexTag CID Response at 13.

[174] *Id.* at 12.

[175] Websites engaged in "scraping," according to Google's launch report for "scraper demotion" are sites "that have authored less than 15% of their content ...." **GOOGMANB-000037864-75** (2011), at 65.

[176] *See, e.g.*, **GOOG-Texas-1380771-73** (Jun. 2009), at 72 (email exchange discussing "scraping" review content from Yelp in lieu of reaching distribution agreement with Yelp); *see also* Yelp IR (Jul. 22, 2011); TripAdvisor IR (Jul. 6, 2011); Amazon IR (Nov. 18, 2011).

[177] *See, e.g.*, **GOOG-Texas-1380771-73** (2009), at 71-72 (discussing importance of Google Places carrying better review content from Yelp). Google has since ceased scraping content (as of Jul. 2011), in a "voluntary" move allegedly designed to transition its own local vertical property into focusing on "original content." *See* Google IR (Jul. 20, 2011).

[178] *See, e.g.*, **FTC-YELPTX-00000163** and **FTC-YELPTX-00000164** (2010) (email from Google to Yelp attaching standard Google license agreement).

[179] *See, e.g.*, Shopzilla IR (Feb. 1, 2012) (stating that Shopzilla does not have the leverage to negotiate the terms of the feed license; it is a take-it-or-leave-it agreement).

[180] **GOOG-Texas-0240698** (2009).

[181] **GOOG-Texas-0182336-38** (2009), at 36-37 (discussing Google's use of "scraping" Amazon's website to obtain Amazon Sales Rank of products, not available via Amazon's feed).

[182] *See supra* note 165; *see also e.g.*, TripAdvisor IR (Mar 12, 2012) (web publishers "depend on search engines to gain visibility. Otherwise they just remain as tiny blips of information. Without the card catalogue, nothing is going to get found in the library. Because Google is dominant in organic search, the ecosystem depends on its services"). Websites believe that they need to make all of their content available for Google to crawl because this will improve their traffic from Google. First, websites believe that the more original content they

after we replicate their features)"); Hanke Tr. 107:6-109:7 (citing **CX-0055** and discussing risk that if Google launched its own site, partners pulled their review content, and users didn't contribute reviews, then Google would risk having no review solution).

[193] **GOOG-Texas-0996561-62** (2007), at 61; *see also* **GOOG-Texas-1074268-69** (2007), at 69 (email from Yelp CEO Stoppelman to Google's John Hanke upon learning about "the Google review feature in Maps", "In the interest of giving us enough time to negotiate in good faith, I'd like to request that you remove our review and photo content from Google Maps before launching your feature next week. We're very uncomfortable with Google launching a directly competitive feature and we'd like to opt out while discussing what might be done to alleviate our concerns.").

[194] **GOOGROSE-000082811-48** (2009), at 41 ("We have partially ended up where we feared we would in 2007 ... 3rd party content providers abandon Google ... Limited success with our Reviews ... Users begin to start at review sites for key categories/regions ...").

[195] *See* Yelp IR (Mar. 5, 2012).

[196] **GOOG-Texas-0863053** (2009) (Eric Schmidt noting, when Yelp turned down Google's offers, "as you can see the deal is apparently off ... [instead we need to] continue to build a great reviews product here at Google." To this John Hanke responded "we'll come to the oc in jan w/ a plan. my sense is that we should be prepared to invest some real money ($100M?) building this up. It will require us spending on things (community managers as well as technologists, city-by-city community building, city-by-city marketing) that have been hard for us to wrap our arms around and commit to in the past. ..." Eric Schmidt responded, "Thanks. I completely agree with your approach here and will definitely fund it !! thanks").

[197] John Hanke, *Introducing Google Places*, Google Blogspot, Apr. 20, 2010, http://googleblog.blogspot.com/2010/04/introducing-google-places.html#!/2010/04/introducing-google-places.html.

[198] *See* John Hanke, *Introducing Google Places*, Google Blogspot, Apr. 20, 2010, http://googleblog.blogspot.com/2010/04/introducing-google-places.html#!/2010/04/introducing-google-places.html.

[199] **GOOG-Texas-1363574** (Jul. 26, 2010) ("... I noticed you're still using excerpts of our review content in local without license and counting them as Google 'reviews', yet you've demoted Yelp to the bottom regardless of freshness (happy to discuss, but we're not ok with this use of our content)").

[200] TripAdvisor IR (Mar. 12, 2012).

[201] *Id.* (explaining that although TripAdvisor received some traffic from Google's Places property, once Google became competitive with TripAdvisor, TripAdvisor had a reason to terminate the license, and the loss of traffic was very small).

[202] *Id.*

[203] *See* **CX-67** (Google Blog, "Place Search: a faster, easier way to find local information") (2010) ("Today we're introducing Place Search, a new kind of local search result that organizes the world's information around places."); **GOOG-Texas-1012889-92** (2010), at 89 ("[Marissa Mayer's] current proposal distinguishes between Search and 'Content' [Non-Search] pages, and accurately deems our 'current' Place and Product Pages to be 'Content' [Non-Search] pages, and concludes: partners should be allowed to choose whether they want to be included in such pages. I believe we all agree with Marissa on these (and all other) ideas ..."). Websites permit or block web crawlers from crawling their sites by including a robots.txt file on their web site *See, e.g.,* www.yelp.com/robots.txt; www.amazon.com/robots.txt; www.google.com/robots.txt. These files provide very crude capabilities, telling crawlers whether they can crawl data or not, not how the sites may use that crawled data. Websites that are not crawled are not included in Google web index and do not show up in organic search results. Google's Webmaster Tools, Block or Remove Pages Using a Robots.txt File, http://support.google.com/webmasters/bin/answer.py?hl=en&answer=156449&topic=1724262&ctx=topic (last visited Jul. 2, 2012).

[204] **GOOG-Texas-1041511-12** (2010), at 12 ("remove blacklist of yelp [reviews] from Web-extracted Reviews once provider based UI live"); **GOOG-Texas-1417391-403** (2010), at 394 ("stating that Google should wait to publish a blog post on the new UI until the change to "unblacklist Yelp" is "live").

[205] **GOOG-Texas-0222679** (2010) ("The competition in this space comes from two weaknesses: 1. We do not have much user-user or user-business communication on the Google platform. This is both a cultural and technological issue. 2. We do not have a complete solution wrt local businesses. We run the risk that competitors like facebook, twitter and yelp become the site where local businesses are discovered and interacted

[216] **GOOGMAYE-000062536-537** (2011), at 36 (Marissa Mayer wrote to Jeremy Stoppelman, "we do not have the ability to immediately customize which search features a website is included in.").

[217] *See, e.g.,* Hanke Tr. 143:20-144:8 (citing **CX-61, GOOG-Texas-0864517-518** (2009), on providing per-domain blacklisting for Google local); Goodrow Tr. 116:12-119:11 (discussing a few methods of preventing product content from appearing in Google Product Search). Moreover, Google has also proposed to adhere to commit to precisely such an "opt-out" feature in its proposal to the EC. *See* Google-EC Settlement Proposal at 15-16.

[218] Mayer Tr. 223:11-224:7.

[219] Avni Shah, *The Ongoing Evolution of Place Pages*, Google Lat-Long Blogspot, Jul, 21, 2011, http://google-latlong.blogspot.com/2011/07/ongoing-evolution-of-place-pages.html. ("Based on careful thought about the future direction of Places pages, and feedback we've heard over the past few months, review snippets from other web sources have now been removed from Place pages. Rating and review counts reflect only those that've been written by fellow Google users, and as a part of our continued commitment to helping you find what you want on the web, we're continuing to provide links to other review sites so you can get a comprehensive view of locations across the globe.")

[220] *See, e.g.,* Goodrow Tr. 35:18-22; 80:11-22; 81:11-23; 109:18-110:7.

[221] *See, e.g.,* Goodrow Tr. 77:2-16; 114:2-12; 164:18-165:9; 185:14-186:11.

[222] Amazon CID Response at 28.

[223] *Id.*

[224] **GOOGBRAD-000049034-35** (2010) (including email from Amazon executive Steven Shure regarding "Google's use of Amazon's customer product reviews and ratings").

[225] **GOOG-Texas-1039100-101** (2010), at 100 ("As I said on our call, we would like Google to no longer display or incorporate the Amazon product reviews information, including text and stars/ratings, which it ingests [through] its natural search crawl, within Google Product Search. ... We ask that you remove the review excerpts from the display and the star ratings from your overall product rating calculation. Their current use is without Amazon's permission. ... We would like you to get back to us in a week, by September 3rd, with a date by which Google will be able to remove Amazon review information from product search. ... on the surface it would seem that we are simply asking you to make a change which directly parallels the recent changes Google has made in displaying Yelp reviews in Google Places. ... Amazon's product review content represents a similar proprietary asset and we do not want it to appear in Google Product Search.").

[226] **GOOGROSE-000078506-08** (2010), at 6 ("We are preparing to remove Amazon's product reviews since they gave us until Friday of next week."); **GOOG-Texas-1012889-92** (2010), at 90 ("Amazon – let's tell Amazon that we were planning to change [the user interface] anyway, but since we are a few weeks away from making revisions and because of [technical uncertainty] we will in the meantime take their content out of Product pages by [date] ... stress that we're doing this out of respect for the relationship, but that our decision [doesn't represent a change in policy]").

[227] Amazon CID Response at 15 (explaining the value of Amazon's "massive amounts of customer ratings for the millions of products in its catalog" is that "they accurately aggregate customers' reviews about any given product and enable consumers to quickly assess the perceived quality of a product without having to read often lengthy text reviews").

[228] *Id.* at 29.

[229] *Id.* at 28-29.

[230] *Id.*

[231] Goodrow Tr. 47:2-49:13.

[232] *Id.* at 67:6-68:1.

[233] *Id.* at 74:5-79:20.

[234] *See, e.g.,* Goodrow Tr. 44:5-46:11 (describing benefit of having a product catalog and that with Froogle, Google tried one method of developing a product catalog, but were not successful in the method that they chose, namely, clustering); **GOOGEC-0134533-631**, at 617 ("We've demonstrated that unsupervised clustering doesn't work.").

[235] Amazon CID Response at 32-34 (detailing the considerable resources Amazon has expended in developing its comprehensive and user-friendly product catalog of over a billion unique items for sale; efforts include obtaining and developing content from merchants, vendors, and Amazon employees; entering into various types of business relationships to obtain catalog information from merchants and vendors; developing the appropriate

[262] Keystone, Advertiser Multi-homing in Online Search Advertising in Europe (June 26, 2011), at 9 (data discussed in the text is U.S. data).

[263] These figures represent the upper bound estimates of the percentage of multi-homing advertisers in each docile. The likely actual percentage will be lower.

[264] This is important because the availability of advertisements from smaller advertisers fills out a search engine's coverage of queries, particularly for "tail" queries. See infra p. 98.

[265] According to Microsoft, approximately 49 percent of keywords with 100 impressions or fewer per month are bid for only on AdWords; for "high scale" keywords, approximately 78 percent are bid for on both AdWords and AdCenter. Susan Athey, Presentation, "The Role of Scale in Competing in Online Search" (March 26, 2012), at 9.

[266] See Microsoft IR (Jun. 11, 2012). This claim may not stand up to scrutiny, however. Despite numerous requests, Microsoft has not produced data to support this assertion. In addition, it is unclear on what basis Microsoft is able to estimate the level of optimization advertisers perform on their AdWords campaigns.

[267] See Brew Gadgets IR (Jan. 30, 2012); National Relief IR (Feb. 15, 2012); Phoenix East Aviation IR (Feb. 29, 2012); Speedy Soft IR (Feb. 6, 2012); Top Hat Imagewear IR (Feb. 22, 2012); Yarn Market IR (Jan. 13, 2012). While it is true that some of the small advertisers interviewed were not interested in a cross-platform optimization tool, their limited interest can be explained by unverified assumptions about a cross-platform tool's ultimate functionality and varying opinions on cross-platform management's current transaction costs. See Ekinoks and Lab Test Florida IR (Feb. 10, 2012); Portadam IR (Feb. 13, 2012); Wyzant IR (Jan. 20, 2012).

[268] See Green Paper Products IR (Feb. 9 & 10, 2012); Puppet U IR (Jan. 31, 2012); Top Hat Imagewear IR (Feb. 22, 2012).

[269] See Brew Gadgets IR (Feb. 2, 2012); Top Hat Imagewear IR (Feb. 22, 2012).

[270] See Phoenix Aviation IR (Feb. 25, 2012).

[271] **CX-36 (GOOGWOJC-000044501-05)** (2007), at 3; see also **GOOGAROR-000007146** (Sep. 25, 2007), at slide 13 (emphasis added).

[272] **CX-41 (GOOGFOX-00128077-81)** (2009), at 79.

[273] Holden Tr. 50:3-21.

[274] See id. at 110, 122-123, 185-186.

[275] **CX-40 (GOOG-ITA-25-0064254-55)** (2008), at 54 (emphasis added).

[276] **CX-39 (GOOGWOJC-000009350-53)** (2009), at 51.

[277] **CX-47 (GOOGEC-0181955-59)** (2009), at 56. Making explicit the connection between the discussion of relaxing the restrictive conditions and contemplated new functionality for DART Search that would otherwise violate those conditions, the engineer responsible for DART Search replied "[w]e aren't ready to build a co-mingling product now." **CX-0046 (GOOGWOJC-000058344-47)** (2009), at 44.

[278] **CX-42 (GOOGEC-0180380-85)** (2009), at 84.

[279] **CX-43 (GOOGEC-0180407-11)** (2009) at 7.

[280] **CX-45 (GOOGEC-0180400-06)** (undated), at 5. Holden was not certain of his response to the original question posed by the API product manager. Holden Tr. 166:12-13. But, he did believe that **CX-0045** was the document presented to Larry Page. Holden Tr. 174:6-20.

[281] **CX-44 (GOOGWOJC-000059695-97)** (2010), at 95 ("As we expected, Larry was OK with the status quo as outlined in the presentation").

[282] See supra note 3.

[283] Holden Tr. 175:24-25.

[284] **CX-182 (GOOG-ITA-09-0057720)** (2010) (Holden writing to Wojcicki, "We didn't take notes for obvious reasons (hence why I'm not elaborating too much here in email) but happy to brief you more verbally"). This document is an unredacted version of **CX-44 (GOOGWOJC-000059695-97)** (Jan. 21, 2010). During the hearing, counsel for Google indicated that the redaction was improper. Holden Tr. 197:12-24.

[285] For a detailed overview of Google's AdSense partners, see Appendix 1 (Table listing exclusive agreements) and Appendix 2 (Table listing preferred placement agreements).

[286] Google Data Submission (Jul. 31, 2012).

[287] Braddi Tr. 22:11-15.

[288] In the early 2000s, Google identified these partners as important sources of user traffic because the search bar on the ISP/portal page was the first thing the user often saw when turning on the computer. See **GOOGPAGE-000009322** (2004), at 3-24 (discussing Google's ISP access strategy in 2004).

[310] Microsoft IR (Jun. 11, 2012).

[311] Wal-Mart IR (May 30, 2012).

[312] Best Buy IR (Jun. 14, 2012).

[313] *See* Kayak IR (Jun. 20, 2012) (characterizing the ability to serve some Bing or Yahoo advertisements alongside Google search ads as "worthless" because Bing monetizes so poorly in relation to Google).

[314] IAC IR (Dec. 8, 2012) (Microsoft sought an exclusive deal); Amazon IR (Feb. 15, 2012) (Microsoft and Yahoo! both require page-based exclusivity so their ads cannot be mixed and matched with the advertisements of their competitors.)

[315] Wal-Mart IR (May 30, 2012); Best Buy IR (Jun. 14, 2012).

[316] Amazon IR (Feb. 15, 2012). Microsoft and Google apparently do have the ability to provide publishers with technical assistance to avoid duplication, but none of the publishers that identified this concern reported receiving such assistance. *See* **CX-113 (FTC-0000093-228)** (2008), at 110 (Google/Yahoo! proposed agreement at §2.12, explaining that Google would use "commercially reasonable efforts" to exclude AFS Ads that contain URLs from corresponding results provided by Yahoo!); Microsoft IR (Jul. 20, 2012).

[317] *See, e.g.* **GOOGKAPO-000006280-95** (2010), at 83 (discussing revenue improvements from lowering revenue share and standardizing AdSense agreements with publishers.); **CX-102 (GOOGBRIN-000025680-83)** (2008), at 80 ("Our general philosophy with renewals has been to reduce TAC across the board"); **GOOGBRAD-000012890-944** (2007), at 13 (AFS strategy discussed in the 2008 AdSense Business Review, "we are instituting stricter AFS Direct revenue-share tiering guidelines by region... Our overall goal is to achieve better AFS economics for both new and renewing partners."); **CX-106 (GOOGKAPO-000006280-95)** (2010), at 83 ("2009 Traffic Acquisition Cost (TAC) was down 3 percentage points from 2008 attributable to the application of standardized revenue share guidelines for renewals and new partnerships...").

[318] *See, e.g.* Business.com IR (Jun. 15, 2012); Time Warner Cable IR (Sep. 8, 2011).

[319] **CX-104 (GOOGBRAD-000048209)** (May 3, 2010), at 4 (Q1 10 Google TAC Summary).

[320] *See, e.g.*, Business.com IR (Jun. 15, 2012); **GOOG-AFS-000004666-68** (2007), at 68; **GOOG-AFS-000000316-27** (Nov. 4, 2010) at 27 (2007 GSA had a 3-tiered revenue share of 80, 85, and 87.5 percent; the 2010 renewal had corresponding tiers of 73, 75, and 77 percent).

[321] *See, e.g.* Time Warner Cable IR (Sep. 8, 2011) (search advertising typically generates revenue well above display advertising).

[322] *See, e.g.*, Comcast IR (Nov. 15, 2011); AOL IR (Dec. 1, 2011); IAC IR (Dec. 8, 2011).

[323] Best Buy IR (Jun. 14, 2012) (contract is not exclusive); Kayak IR (Jun. 20, 2012) (contract is not exclusive); Amazon IR (Feb. 15, 2012) (contract is not exclusive – Amazon resisted Google's attempt to impose exclusivity); Wal-Mart IR (May 30, 2012) (describing the contract as not exclusive but noting that Google requires preferred placement if Wal-Mart uses Yahoo! or Microsoft).

[324] *See* Google Data Submission (Jul. 31, 2012).

[325] eBay IR (Oct. 27, 2011).

[326] *Id.*

[327] *Id.*

[328] *Id.*

[329] *Id.*

[330] *Id.*

[331] NexTag IR (May 10, 2011).

[332] *Id.*

[333] *Id.*

[334] *Id.*

[335] *Id.*

[336] *Id.*

[337] Business.com IR (Jun. 15, 2012).

[338] *Id.*

[339] *Id.*

[340] *Id.*

[341] *Id.*

[342] Amazon IR (Feb. 15, 2012).

[343] *Id.*

[378] Brin Tr. 319:13-320:15. Brin testified that Google has done some analysis of Facebook and Amazon at some point in the past (although not regularly), and does not recall getting regular reports on any other vertical competitor. According to Brin, "it's definitely [a] much harder comparison to make." Brin Tr. 331:15-22.

[379] *See* Department of Justice, Recommendation to Challenge Google/Yahoo Services Agreement, 39 (Sep. 22, 2008) ("[u]sers do not substitute foreign search engines for U.S. engines, because foreign engines are not designed to deliver relevant information for a U.S. user"). *See also* Microsoft EC Submission 86 (noting that the relevant markets at issue in this investigation should be defined by "national or linguistic boundaries").

[380] *See* Press Release, comScore, comScore Releases May 2012 U.S. Search Engine Rankings (Jun. 22, 2012) http://www.comscore.com/Press_Events/Press_Releases/2012/6/comScore_Releases_May_2012_U.S._Search_Engine_Rankings.Google's market share has been measured as a share of the total volume of unique searches in the United States conducted across traditional search engines, as well as other "leading" sites such as Facebook and Wikipedia. Google's internal figures reflect slightly higher market shares for Google, *see, e.g.,* **CX-183 (GOOGWRIG-000086779-81)** (2011) (reporting monthly market shares in Google's internal metrics ranging between 69.4 and 83.5 percent, while the equivalent comScore number for the same period is 65.1 percent). According to Sergey Brin, Google relies on both internal and external data sources when examining its market shares, although all of the sources "have their problems, their challenges." Brin Tr. 315:9-316:2. Brin testified that he is more concerned with whether all of the data sources are consistent in their "trends," *i.e.,* whether Google's share is going up or down, than the exact numbers. Brin Tr. 321:11-23.

[381] *See* Brad Stone & Brett Pulley, *IAC's Barry Diller Surrenders to Google, Ends Ask.com's Search Effort,* Bloomberg, Nov. 9, 2010, http://www.bloomberg.com/news/2010-11-09/iac-s-diller-surrenders-to-google-juggernaut-ends-ask-com-search-effort.html.

[382] Google has an intermediation agreement with AOL, whereby Google provides AOL with Google search and search advertising functionality. Microsoft EC Submission at 23.

[383] *See* Press Release, comScore, comScore Releases May 2012 U.S. Search Engine Rankings (Jun. 22, 2012) http://www.comscore.com/Press_Events/Press_Releases/2012/6/comScore_Releases_May_2012_U.S._Search_Engine_Rankings.

[384] This number should be viewed with some caution, both because there can often be shifts of a percent or two in the monthly comScore data, and also because there is really no good way to measure search share with high precision. All of the measures of search share have various methodological problems and limitations. *See, e.g.* Brin Tr. 315:9-316:2 (noting that all of the internal and external market share numbers have issues); Schmidt Tr. 53:10-55:2 (noting that Google's view is that comScore numbers are always wrong); *but see* **GOOGMANB-000095004-07** (2011), at 4 (Hal Varian, Google's chief economist, writes: "Though I would agree that ComScore is unreliable, it's not at all obvious to me that this matters much to us. From an antitrust perspective, I'm happy to see them underestimate our share.")

[385] *See* Press Release, comScore, comScore Releases May 2012 U.S. Search Engine Rankings (Jun. 22, 2012) http://www.comscore.com/Press_Events/Press_Releases/2012/6/comScore_Releases_May_2012_U.S._Search_Engine_Rankings.

[386] Microsoft IR (Jun. 11, 2012).

[387] *Id.*

[388] *See Bepco, Inc. v. Allied-Signal, Inc.,* 106 F. Supp. 814, 830 (M.D.N.C. 2000) (70-75 percent). *See also, e.g., Exxon Corp. v. Berwick Bay Real Estate Partners,* 748 F.2d 937, 940 (5th Cir. 1984) (per curiam) ("monopolization is rarely found when the defendant's share of the relevant market is below 70%"); *Colo. Interstate Gas Co. v. Natural Gas Pipeline Co. of Am.,* 885 F.2d 683, 694 n.18 (10th Cir. 1989) (in order to establish monopoly power, "lower courts generally require a minimum market share of between 70% and 80%") (internal citation omitted).

[389] *See, e.g., Oahu Gas Service, Inc. v. Pacific Resources. Inc.,* 838 F.2d 360, 366 (9th Cir. 1988) (affirming jury finding that defendant had monopoly power despite steadily declining market share from 100 percent to 68.2 percent at time of lawsuit). While Judge Learned Hand was "doubtful whether sixty or sixty-four percent would be enough," *see United States v. Aluminum Co. of Am.,* 148 F.2d 416, 424 (2d Cir. 1945), and the Third Circuit has suggested that "a share significantly larger than 55% has been required to establish prima facie market power," *United States v. Dentsply Int'l, Inc.,* 399 F.3d 181, 187 (3d Cir. 2005), no minimum threshold has ever been established. *See Broadway Delivery Corp. v. United Parcel Serv. of Am.,* 651 F.2d 122, 130 (2d Cir. 1981), *cert. denied,* 454 U.S. 968 (1982) (holding that, while, "[s]ometimes, but not inevitably, it will be useful to suggest that a market share below 50% is rarely evidence of monopoly power, a share between 50% and 70%

[404] *See, e.g.*, Amazon CID Response at 38; Clickable IR (Oct. 24, 2011); Living Social IR (Mar. 3, 2011). *See also, e.g.*, Brin Tr. 178:5-21 (testifying that search ads convert much better than other types of advertising); Schmidt Tr. 125:21-126:9 (same); **GOOG-ITA-03-0045511-18** (2009), at 13 ("Content conversions do not lead to sales like search conversions," attributing the difference to where display reaches users in the buying cycle versus where search reaches users in the buying cycle); **GOOG-ITA-13-0000937-41** (2009), at 37 (Hal Varian stating, "don't lump search advertising in with everything else – treat it as a separate category," further noting that the recession has cut far more significantly into display conversions than into search ad conversions).

[405] Gian Fuglioni, *Who Will Rid us of this Meddlesome Click?*, comScore, Dec. 7, 2010, http://blog.comscore.com/2010/12/rid_meddlesome_click.html ("The average click rate (defined as the percent of paid ads that were clicked on) for paid search campaigns (3.5%) is massively (35x) higher than for display ad campaigns").

[406] *See supra* p. 9-11 & notes 43-48.

[407] **FTC-EBAY-00000002** (2012), at 31; Amazon CID Response at 38.

[408] Booyah IR (Jan. 25, 2012); Comcast IR (Nov. 15, 2012); iCrossing IR (Apr. 9, 2012) (search advertising is alone at the bottom of the marketing funnel, keyed to user intent); Core-Metrics (IBM) IR (Nov. 4, 2011); Comcast IR (Nov. 15, 2011); Priceline IR (Oct. 18, 2012) (search has surgical precision and is unlike other advertising); Amazon CID Response at 38.

[409] Brin Tr. 178:16-21 (search ads convert much better than other types of ads); **GOOG-ITA-03-0045511-18** (2009), at 16 ("content conversions do not lead to sales like search conversions"); **GOOG-ITA-01-0364176-205** (2010), at 95 (a picture depicting a hierarchy of conversion attribution placing paid search at the top followed by organic search, display, affiliates, social networks, email marketing, direct visitation, and offline); Group M IR (Oct. 11, 2011) (contextual advertising is better than display, but not as effective as search at generating conversions).

[410] Brin Tr. 181:2-8 ("[Y]our average content page view is worth significantly less than your average search page, no question about it."); Schmidt Tr. 129:6-130:5 (testifying that for advertisers that want to generate sales, their money should go to search advertising first and then other forms of online advertising and then offline advertising "[s]o the general feeling – and again this is confirmed by experience – is that you would always put text ads first and then display second which is still online.").

[411] Amazon CID Response at 38 and Table 9.2. *See also e.g.*, Living Social CID Response at 16 (no substitute for search advertising); Group M IR (Oct. 11 2011); eBay IR (Nov. 4, 2011); Didit.com IR (Dec. 27, 2012); IAC IR (Dec. 8, 2011); AOL IR (Dec. 9, 2011); Demand Media IR (Dec. 9, 2011); Kayak IR (Dec. 20, 2011).

[412] *See, e.g.*, Demand Media IR (Dec. 9, 2011) (price increase will not cause shift to other forms of advertising); EAS IR (Feb. 24, 2012) (same); Kayak IR (Dec. 20, 2011) (price increase would not cause Kayak to spend less on search advertising); Booyah IR (Jan. 25, 2012) (if prices went up 10 percent on Google paid search, the advertiser would not like it, but would pay it); Clickable IR (Oct. 24, 2011) (cannot divert advertising dollars from Google to other platforms); Wyzant IR (Jan. 20, 2012) (would pay an increase of 10 percent rather than shift spend away from Google Adwords); Comcast IR (Nov. 15, 2011) (it would take a price increase of more than 50 percent to move any money from search advertising).

[413] Living Social CID Response at 16; Didit Draft Decl. (2008) (would affirm to the principle that there are "no good substitutes for paid search" in 2012); Amazon CID Response at 38-39; **FTC-EXPE-00000002** (2012), at 15-16.

[414] Living Social CID Response at 16.

[415] Apollo IR (Jan. 4, 2012); Fox Studios IR (Jan. 20, 2012); Havas IR (Oct. 5, 2012); Sound World Instruments IR (Jan. 24, 2012). Generally speaking, it was difficult for many advertisers to answer the hypothetical – "what would you do in the face of an across-the-board price increase?" – because of the unique manner in which search advertising is priced. Pricing of search advertising is based on what is known as a "Vickrey second auction" model. The idea behind this auction is to give advertisers the incentive to bid their maximum bid, rather than try to game the auction to pay as little as possible. In this type of auction, an advertiser is only required to pay $.01 more than the next lowest bidder. For example, three sports retailers are bidding on the keyword "sneakers." Retailer A bids a maximum of $1.00; Retailer B bids $0.50; and Retailer C bids $0.25. All other things being equal (*i.e.*, controlling for Google's quality score adjustments), Retailer A will "win" the top spot in the auction, but will only pay $0.51 to Google if a user clicks on Retailer A's ad. In this way, the auction itself drives up the prices, and Google's "control" of prices is more indirect (although Google sets minimum bids and establishes quality scores that sets each advertiser's baseline bid). Notably, each time a

to 8.1% This Year, Emarketer.com, Mar. 23, 2011, http://www.emarketer.com/blog/index.php/quick-stat-yahoos-search-ad-revenue-share-fall-81-year/ (Emarketer.com estimates Google's share to be 70 percent in 2010 and 80 percent in 2011); *See* ADV Media Productions, Google Dominates Search Advertising With 80% Market Share Unaffected by The Rise of Bing, http://www.advmediaproductions.com/blog/google-dominates-paid-search-advertising-with-80-market-share-unaffected-by-the-rise-of-bing/ (last visited Jul. 16, 2012). *See also* **GOOGMAYE-000035824** (2009), at 8 (in 2009 Google estimated its market share 71.3 percent). We understand that BE Staff may be measuring Google's share of the search advertising market based on ad clicks or impressions. We are unclear as to why BE would rely on this metric because a click on an ad does not actually tell you anything about how much an advertiser is spending on any given ad on any given platform. The logical metric for estimating advertising share is advertiser spend (or advertising revenues), which is the metric relied upon by all of the industry sources (see above) – and Google itself. *See, e.g.,* **CX-116 (GOOG-Texas-148915-70)** (2009), at 19-20 (evaluating "market share by size of ad revenue captured").

[428] Google Data Submission (Jan. 10, 2012) (listing 1,280,983,000 advertisers in 2011).

[429] Michael Liedtke, *Microsoft Takes $6.2 Billion Hit On aQuantive Online Ad Woes*, Huffington Post, Jul. 2, 2012, http://www.huffingtonpost.com/2012/07/03/microsoft-aquantive-online-ads_n_1645696.html (attributing the growth to loss of share to Yahoo with Microsoft holding steady at 7 percent); Covario.com, Covario Finds High Tech Global Paid Search Spend Rose 22 Percent in Q1 over the Same Period Last Year, http://www.covario.com/news-and-views/newsroom/press-releases/515-covario-finds-high-tech-global-paid-search-spend-rose-22-percent-in-q1-over-the-same-period-last-year-) (last visited Jul. 16, 2012) (estimating Microsoft and Yahoo!'s share of search advertising market to be a combined 13 percent). The remaining 4-12 percent of the search advertising market appears to be controlled by AOL and Ask, both powered by Google.

[430] Microsoft Data Submission (Sep. 23, 2011) (listing 313,345 total advertisers in 2011).

[431] Notably, while Bing and Yahoo! operate a joint search and search advertising network, they service syndication clients separately. According to Microsoft, this is a vestige of Yahoo!'s many relationships with website publishers prior to merging its main search and advertising operations with Microsoft. Microsoft IR (Jun. 11, 2012).

[432] *See, e.g.,* IAC IR (Dec. 8, 2011); Earthlink IR (May 23, 2012); Amazon IR (Feb. 15, 2012).

[433] *See, e.g.,* AOL IR (Dec. 1, 2011); Earthink IR (May 23, 2012).

[434] *See, e.g.,* Amazon IR (Feb. 15, 2012); AOL IR (Dec. 1, 2011).

[435] *See, e.g.,* Cablevision IR (Jun. 20, 2012); Business.com IR (Jun. 15, 2012).

[436] *See, e.g.,* Cablevision IR (Jun. 20, 2012); Business.com IR (Jun. 15, 2012).

[437] Department of Justice, Recommendation to Challenge Google/Yahoo Services Agreement, 54-55 (Sep. 22, 2008). The Department of Justice defined "search syndication" to include both syndicated search and search advertising, wherein intermediaries such as Google struck agreements with website publishers to provide both functionalities. *Id.*

[438] *See supra* p. 67 (relevant geographic market for horizontal search is limited to the United States) and p. 73 (same for search advertising). *See* Department of Justice, Recommendation to Challenge Google/Yahoo Services Agreement, 39 (Sep. 22, 2008) ("[u]sers do not substitute foreign search engines for U.S. engines, because foreign engines are not designed to deliver relevant information for a U.S. user"). *See also* Microsoft EC Submission 86 (noting that the relevant markets at issue in this investigation should be defined by "national or linguistic boundaries"). None of the parties have challenged the relevant geographic market.

[439] 2011 comScore qSearch20 Report. Amazon query volume has been allocated between Google and Microsoft according to the division described by the company. *See* Amazon IR (Nov. 18, 2011). Queries on Craigslist.org have been removed from the dataset because the site does not host either web search or search advertising. There are some significant inconsistencies in our datasets. Figures provided by Microsoft for Yahoo!'s syndication query volume are staggeringly inconsistent with comScore's data (107 billion in Microsoft's data set v. 2.7 billion in comScore). We are trying to get to the bottom of this discrepancy now, but understand that Yahoo!'s internal data may take into account so-called "phantom" queries (instances where a user hovers over a word in text and a link or ad appears), which would account for the discrepancy. Google's market share would be considerably smaller taking into account the Yahoo! figure provided by Microsoft. However, we have reason to question the Yahoo! figure because it is inconsistent with the industry understanding of Google's dominance in this area. *See* Appendix 3 for a detailed explanation of how Staff calculated the relevant market shares using comScore's dataset.

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may be going directly to vertical sites, and if the queries we are losing are commercial in nature, this may be a reason for RPM declines"); **GOOGFOX-000025766** (undated), at 16 (In the UK, "Google losing 3-4% of rev share p.a. to aggregators. . . . Aggregators instigating more sales. . . . Aggregators growing much faster than Google. Potential lost revenue in UK > $100 million by 2012). *See also e.g.*, Brin Tr. 58:7-19 (". . .if we're serving our users poorly in whatever subsets of queries, we would definitely face significant revenue erosion as we got less usage."; Schmidt Tr. 160:25-161:10, 226:10-228:25, 229:23-230:25, 234:13-234:22, 235:2-235:8, 236:20-237:5, 294:1-295:18 (". . . it's opportunity lost. . . And in our industry, it's important to do very well. . . There was a concern that the aggregators were doing a good job in an area where we were not as – doing a good enough job . . . We want to compete. So that drove a – a discussion.").

[458] *See* Microsoft Corp., Microsoft Complaint to the European Commission (Mar. 31, 2011). This theory directly tracks the Department of Justice's theory on the role of middleware in *Microsoft*. There, it was argued, middleware represented a threat to Microsoft's operating system dominance not because the middleware would *itself* replace the underlying operating system, but because middleware provided an alternative platform onto which applications could be written, which could be run irrespective of the underlying operating system. Lowering this so-called applications barrier to entry, in turn, lowered the costs for other firms to introduce rival operating systems that *could* directly challenge Microsoft's dominance over Intel-compatible operating systems. Similarly, here, Microsoft argues that a "key component" of its strategy in attracting users has been to partner with vertical websites so that Bing can offer a "differentiated general search experience to compete with Google." *Id. See also e.g.*, **GOOG-Texas-1325832-33** (2010), at 33 ("Bing has explicitly made improving verticals a key part of their strategy to beat Google"); **GOOG-ITA-01-0331214** (2009) (email noting that Bing is focused on competing against Google in its "two top verticals," shopping and travel).

[459] While reduced innovation is at the heart of this theory, the role of pricing cannot be ignored, in that (as with other theories described later in this memorandum), the broader availability of alternative search advertising platforms would operate as a constraint on Google's ability to raise prices to its advertisers.

[460] *See supra* p. 30.

[461] *See supra* p. 30-31.

[462] In *Microsoft*, the government's argument that product improvement could be outweighed by anticompetitive effects did not fare well. The *en banc* court considered a claim that Microsoft had designed certain software in a way that made Java applications both faster on its operating system and incompatible with rival operating systems. Although the opinion stated that the applicable test was that "the incompatible product must have an anticompetitive effect that outweighs any procompetitive justification for the design," it held that the fact that product ran faster on Microsoft machines sufficed to make it legal standing alone and did not appear to try to balance that benefit against anticompetitive effects. *Microsoft*, 253 F.3d at 74-75. Similarly, while the D.C. Circuit upheld the lower court's ruling against Microsoft on the company's efforts to integrate the Internet browser with the operating system, it did so on particular integration aspects for which Microsoft could provide no justification. Where Microsoft did provide a justification (namely, in overriding users' choice of a default browser), the court found no liability. 253 F.3d at 67-68.

[463] *See* Response of Google to DG Comp (Jul. 1, 2011), at 2.

[464] *See* Shashi Seth, *Beyond the Search Box*, Yahoo Search Blog, Jun. 10, 2010, http://www.ysearchblog.com/2010/06/10/beyond-the-search-box/. ("People no longer search to find a list of blue links; they search to find answers in the shortest amount of time possible. We believe that surfacing the right information at the right time is more important than the number of total results delivered or number of traditional queries conducted"); Greg R. Notess, *Microsoft's New Bing – The 'Decision Engine*, Information Today Inc., Jun. 8, 2009, http://newsbreaks.infotoday.com/NewsBreaks/Microsofts-New-BingThe-Decision-Engine-54514.asp. (noting that Microsoft rebranded its MSN search engine as Bing in 2009, dubbed it the "decision engine," and began incorporating universal blends similar to those used by Google and Yahoo!).

[465] Google Search Innovation White Paper at 56-58.

[466] *Id.* at 40.

[467] The OneBox, predecessor to the Universal Search "blend," showcased Google's vertical content in a box at the top of the Google search results page. *See id.* at 34-45.

[468] PageRank "relies on the uniquely democratic nature of the web by using its vast link structure as an indicator of an individual page's value. In essence, Google interprets a link from page A to page B as a vote, by page A, for page B. But, Google looks at considerably more than the sheer volume of votes, or links a page receives; for example, it also analyzes the page that casts the vote. Votes cast by pages that are themselves "important"

design changes by monopolists that substantially disadvantage rivals or nascent threats, even where that conduct does not rise to a Section 2 violation. Professor Herbert Hovenkamp believes that the area of monopoly leveraging in industries characterized by network effects may be a type of exclusionary conduct uniquely suited to standalone Section 5 competition enforcement. Herbert J. Hovenkamp, *The Federal Trade Commission Act and the Sherman Act*, 62 Fla. L. Rev. 871, 885-87 (2010). Hovekamp lauded the FTC's decision to challenge Intel's conduct with respect to graphic chips in the *Intel* matter because he felt that Section 5 was uniquely suited to deal with thorny issues relating to design changes by monopolists that disadvantage rivals, *id.*, and because liability under Section 5 does not lead to the imposition of treble damages, and is applied by an agency that is able to develop expertise about particularly complex issues such as design changes that negatively impact rivals. *See also* Areeda & Hovenkamp, *Antitrust Law*, ¶ 772h ("Another possibility is use of § 5 of the Federal Trade Commission Act, whose prohibition of unfair methods competition can reach instances of leveraging activity relating monopolized and nonmonopolized markets in circumstances where § 2 of the Sherman Act cannot.").

[485] *See generally* Eugene Volkh and Donald M. Falk, Mayer Brown LLP, "First Amendment Protection for Search Engine Search Results" (Apr. 20, 2012).

[486] 2003 U.S. Dist. LEXIS 27193 (W.D. Okla. 2003).

[487] *Id.* at *3.

[488] *See Kinderstart LLC v. Google, Inc.*, 2006 U.S. Dist. LEXIS 82481, at *30 n.6 (N.D. Cal. Jul. 13, 2006) (although not specifically reaching the issue, noting that Google's manipulation of its search results might be distinguishable from other forms of protected expression because Google is not a media defendant, and website ranking may be of little or no public concern, citing *Jefferson County School Dist. No. R-1 v. Moody's Investor's Services, Inc.*, 175 F.3d 848, 852 (10th Cir. 1999)).

[489] *See Central Hudson Gas & Elec. Corp. v. Public Serv. Comm'n*, 447 U.S. 557, 667 (1980).

[490] *Edenfield v. Fane*, 507 U.S. 761, 767 (1993) (*quoting Ohralik v. Ohio State Bar Assn.*, 436 U.S. 447, 457 (1978)).

[491] 540 U.S. 398 (2004).

[492] *Id.* at 408 (quoting United States v. Colgate & Co., 250 U.S. 300, 307 (1919)); *see Pac. Bell Tel. Co. v. Linkline Communications, Inc.*, 129 S.Ct. 1109, 1118 (2009) ("As a general rule, businesses are free to choose the parties with whom they will deal, as well as the prices, terms, and conditions of that dealing").

[493] *Id.* at 408; *see Linkline*, 129 S.Ct. at 1118 (acknowledging "limited circumstances in which a firm's unilateral refusal to deal with its rivals can give rise to antitrust liability").

[494] 472 U.S. 585 (1985).

[495] *Trinko*, 540 U.S. at 409.

[496] *Trinko*, 540 U.S. at 408-09 (describing *Aspen Skiing*).

[497] *Id.* at 409 (emphasis in original).

[498] 93 Fed. Appx. 1 (5th Cir. 2004) (unpublished op.).

[499] *Id.* at 3.

[500] *Id.* at 4.

[501] *Id.* at 9-10. *See also, e.g., Creative Copier Servs. v. Xerox Corp.*, 344 F.Supp.2d 858, 866 (D. Conn. 2004) (allowing plaintiff's refusal to deal claims to go forward where plaintiff alleged that defendant Xerox engaged in a voluntary course of dealing with plaintiff, then unilaterally "stopped dealing with [plaintiff] or made it difficult for [plaintiff] to deal with Xerox" without a legitimate business justification). Conversely, several courts have dismissed complaints that have failed to properly allege a "unilateral termination of a voluntary course of dealing." *See, e.g., Covad Communications Co. v. Bell Atlantic Corp.*, 398 F.3d 666, 673 (D.C. Cir. 2005) (upholding dismissal of complaint where, among other things, plaintiff failed to allege that "the defendant had previously engaged in a course of dealing with its rivals, or that it would ever have done so absent statutory compulsion" (internal quotation omitted); *LiveUniverse, Inc. v. MySpace, Inc.*, 304 Fed. Appx. 554, 556 (9th Cir. 1009) (unpublished op.) (holding that a refusal to deal claim requires a prior affirmative decision or agreement to cooperate, and upholding dismissal of complaint where voluntary, affirmative prior course of dealing was not alleged); *In re Elevator Antitrust Litig.*, 503 F.3d 47, 52-53 (2d Cir. 2007) (interpreting the "sole exception" to a defendant's right to refuse to deal as "when a monopolist seeks to terminate a prior (voluntary) course of dealing with a competitor," and dismissing complaint where plaintiff failed to allege this). *See also* Areeda & Hovenkamp ¶772h ("As a general matter, court-imposed sharing obligations created under the very general provisions of the antitrust laws must be restricted to circumstances where the defendant

offer to deal with a competitor on unreasonable terms and conditions can amount to a practical refusal to deal"); *Aspen Skiing*, 472 U.S. at 592-93 (noting that defendant offered plaintiff joint ticket deal provided that plaintiff agreed to accept a fixed percentage of profits considerably below plaintiff's historical average, that a member of defendant's board of directors admitted that defendant made an offer it knew plaintiff would not accept, and that on those facts, plaintiff did reject defendant's offer); *Duke Energy*, 93 Fed. Appx. at 4 (premising liability for refusal to deal on offer with terms that defendant "knew were unrealistic or completely unviable" to plaintiff); *Creative Copier Servs.*, 344 F.Supp.2d at 866 (allowing refusal to deal claim to proceed based on defendant's delays in shipping, making certain parts unavailable, and raising prices on other parts). *See also* Areeda & Hovenkamp ¶772c1 (noting that, in *Aspen Skiing*, defendant did not actually refuse to deal with plaintiff, but kept trying to reduce plaintiff's share of the profits until it "finally made an offer that [plaintiff] would and did find unacceptable").

[510] *Cf. In the Matter of Intel Corp.*, 128 FTC Decisions 213 (1999) (challenging Intel's threat to cut off customers from critical technical information unless those customers granted Intel licenses to technology developed and owned by the customers).

[511] *See, e.g., In the Matter of Negotiated Data Solutions LLC*, FTC File No. 051-0094 (2008) (condemning, as unfair method of competition under Section 5, N-Data's reneging on prior patent owner's pricing commitments to standard-setting organization, where (i) the conduct caused "substantial consumer injury" that (ii) was "not . . . outweighed by any countervailing benefits to consumers or competition that the practice produces," and (iii) it was an injury that "consumers themselves could not reasonably have avoided") (quoting *Orkin Exterminating Co. v. FTC*, 849 F.2d 1354, 1364 (11th Cir. 1988).

[512] *See* Analysis of Proposed Consent Order to Aid Public Comment, *In the Matter of Intel Corp.*, 128 FTC Decisions 213 (1999), at *3 ("Unjustified conduct by a monopolist that removes the incentive to . . . compet[e] by depriving innovators of their reward or otherwise tilting the playing field against new entrants or fringe competitors . . . has a direct and substantial impact upon future consumers").

[513] *See, e.g.,* Microsoft IR (Jul. 23, 2012) (Qi Lu referencing well-known Silicon Valley investor who has allegedly pulled funding from a variety of vertical websites).

[514] Mayer Tr. 152:19-24 (". . . it's not possible to be dropped in one place and not the other").

[515] *See supra* p. 37. Similarly, Google's almost immediate removal of Amazon product reviews from Google Product Search indicates that technical barriers were quickly surmounted when Google desired to accommodate a partner.

[516] Google allows newspapers to choose to be indexed for Google's web search results, but not by Google News. *See* Jonathan Simon, *New User Agent for News*, Google Webmaster Central, Dec. 2, 2009, http://googlewebmastercentral.blogspot.com/2009/12/new-user-agent-for-news.html; David Smydra, *Google News Now Crawling with Googlebot*, Google Webmaster Central, Aug. 25, 2011, http://googlewebmastercentral.blogspot.com/2011/08/google-news-now-crawling-with-googlebot.html; Vanessa Fox, *Google Retires the Googlebot-News Bot*, Search Engine Land, http://searchengineland.com/google-retires-the-googlebot-news-bot-90607. The primary difference between Google News and the affected verticals here is that Google makes little money from Google News as a stand-alone product. Presumably, this lower-value vertical is one in which Google was willing to make certain concessions that it was not willing to make in higher-value vertical areas.

[517] As demonstrated in the *Microsoft* opinion, courts are deferential in their treatment of product innovations with genuine procompetitive qualities. *See Microsoft*, 253 F.3d at 75-76 (reversing finding of liability with respect to Microsoft development of a java script that allowed improved performance, but was incompatible with the java script pioneered by Sun MicroSystem, Inc.); *see also Allied Orthopedic*, 592 F.3d at 998-1002 (finding that the introduction of improved sensors that were incompatible with competitors' monitoring systems was not anticompetitive). However, when evaluating contractual restrictions attached to the product, the *Microsoft* court had no trouble evaluating those contractual restrictions separately from the products they were attached to. *See Microsoft*, 253 F.3d at 59-63 (condemning licensing restrictions for harming rivals, "not by improving its own product, but, rather, by preventing OEMs from taking actions that could increase rivals' share of usage"). This distinction demonstrates why the consumer choice model described in the BE Staff Memo of Jan. 31, 2012, at 23-24, frames a false choice. With the model, BE Staff compared overall welfare of advertisers with the API plus restrictions versus their welfare if no API existed. There is no support in the case law for limiting the choice in such a way when there is a third choice: the API without the restrictive conditions. The analogous argument in the *Microsoft* case would have prevented the courts from considering the possibility

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correct ROI to their client and would thus be out-of-business."); Clickable IR (Oct. 24, 2011) ("Although advertising across multiple platforms requires Clickable to use additional resources, Clickable wants to encourage this behavior nonetheless . . . [as] advertising across multiple platforms helps its clients achieve the highest return on investment (ROI).") Didit.com (Dec. 27, 2011) ("Didit manages client campaigns to maximize ROI."); Interpublic IR (Oct. 20, 2011) (noting that "the search advertising market is 'effectiveness driven,' . . . ."); Kenshoo IR (Nov. 9, 2011) ("Kenshoo's software is structured to primarily emphasize return on investment (ROI) and scale, and to secondarily address brand awareness and exposure."); Raven Tools IR (Feb. 28, 2012) ("Raven is limited on what they can do, so they focus their energy on where they see the most return.") Reach Local IR (Jan. 12, 2012) ("[t]he value in Reach Local's advertising campaigns stems from the return on investment, time and opportunity cost savings, access to technology and software, and the knowledge of its staff.").

[537] Holden Tr. 64:20-65:9. A search for SEMs reveals hundreds of firms offering these services; *see also,* Varian Tr. 107:4-108:4 (explaining that ad agencies act in a non-zero sum game and their role is a positive one for Google); Varian Tr. 149:22-150:11 (where there are numerous advertising agencies "they would try to compete in providing functionality and, of course, costs of developing tools that are appropriate to the needs of their clients . . . like any competitive market, they would try to address the needs of their potential customers.").

[538] CX-37 (GOOGWOJC-000031755-64) (2008), at 58 ("Market forces are going to protect Google. Their (3rd party, agencies) customers will drop that customer/agency. To the extent that someone is adding spammy stuff – they are going to worsen their own performance and this won't work out in the long run."), at 59 ("Won't market forces drive developers to adopt [all AdWords functionality]? Customers will hound you or leave if you don't offer it").

[539] To the extent SEMs and agencies have misaligned incentives, it would be with non-dominant search networks, because the third parties' first priority would be to improve their clients' returns on AdWords, the largest search network, before optimizing on others. *See, e.g.,* Varian Tr. 135:11-17.

[540] GOOGAROR-000018605-16 (2006), at 11 (emphasis added).

[541] Holden Tr. 31:19-32:16 (Google does not have reliable information about the ROI of advertisers using agencies and SEMs); id. at 129:10-130:14 (no record of any harm to Google from SEMs that were violating terms and conditions).

[542] Holden Tr. 31:22-32:7 ("typically our assessments come back that rate of spend increases on advertisers working through agencies."). *See also* CX-41 (GOOGFOX-000128077-80) (2009), at 77 (Google study finding that advertisers who use SEM tools have about 13% higher spend *growth* than advertisers who only use the AdWords Front End).

[543] Holden Tr. 128:7-130:14; *cf.* Google Submission to the EC, "Google's AdWords API Terms and Conditions Do Not Have Anti-Competitive Foreclosure Effects – An Analytic Framework" (Sep. 23, 2011), at 19 ("Google's online AdWords guide explains: *getting the most out of AdWords requires ongoing experimentation.*") (emphasis in the original).

[544] AdWords Terms and Conditions, III.2.f. provides: "All AdWords API Clients must expose at least as much functionality as is set forth in the RMF List. If the RMF List includes a particular function, all aspects of that function and all API calls related to that function must be enabled and exposed. AdWords API Clients will need to expose any additional functionality added to the RMF List within 4 months after those functionalities are added to the RMF List." The list of requirements is updated periodically and posted by Google. *See* Google Developers, Required Minimum Functionality, https://developers.google.com/adwords/api/docs/requirements (last visited Jul. 25, 2012).

[545] CX-192 (GOOGVARI-000006959R-61R) (2004), at 61R. Later in that thread, Hal Varian is noted as saying, "We're the dominant incumbent in this industry; the folks pushing us to develop our API will be the underdogs trying to unseat us." *Id.* at 60R.

[546] GOOGKAMA-000004812-13 (2004), at 12; *see also* GOOGKAMA-000015528 (2006), at 2 (in response to concern about Google advertisers migrating to MSN AdCenter, Google's response is "fight commoditization of search networks by enforcing AdWords API T&Cs with SEMs").

[547] GOOGKAMA-000004815 (2004), at 1.

[548] *Id.*

[549] AdWords API Terms and Conditions, section III.2.f ("All AdWords API Clients must expose at least as much functionality as is set forth in the Required Minimum Functionality List.").

[564] The "conservative" estimate includes in the "foreclosed" group *only* the companies that have explicitly complained to the Commission that agreements foreclose them from using a rival syndication service, and that they would like to do so, but for their current agreement with Google. This group includes only eBay. It should also include NexTag and Business.com, however the comScore dataset does not provide numbers for these firms. The comScore dataset suggests that, under this scenario, 8,653,366,936 queries, or some 19.6 percent of the market, is foreclosed. (If IAC is included within this group, the foreclosed query volume increases to 16,447,977,342, or some 37.3 percent of the market.) This is an extremely conservative estimate because, as noted above, courts routinely include all sales made pursuant to an exclusive agreement as being foreclosed.

[565] The "aggressive" estimate includes in the "foreclosed" group every company that is party to an exclusive agreement with Google (*see* Appendix 1, table showing exclusive agreements), as well as every company that is party to an agreement with the challenged "preferred placement" provision (*see* Appendix 2, table showing "preferred placement" agreements), *except* for any party that has explicitly told us that they do not view the "preferred placement" provision as a barrier to the use of a rival's syndication service. The excluded group includes Amazon, Wal-Mart, and Google's online partners. Also excluded is Earthlink, although the comScore dataset does not provide numbers for this firm. The comScore dataset suggests that, under this scenario, 29,133,927,882 queries, or some 66.1 percent of the market is foreclosed.

[566] The "intermediate" estimate includes in the "foreclosed" group every company that is party to an exclusive agreement with Google, as well as any company that is party to "preferred placement" terms and has explicitly complained to the Commission that these terms foreclose them from using a rival syndication service, and has stated that they would like to do so, but for their current agreement with Google. In addition to all partners with an exclusive agreement (*see* Appendix 1, table showing exclusive agreements), this group includes: eBay (and should include NexTag and Business.com, but does not, given the limitations of the comScore dataset, described above). The comScore dataset suggests that, under this scenario, 22,804,213,204 queries, or some 51.5 percent of the market, is foreclosed. We believe that this is the most defensible position because it takes into account both the exclusive agreements – those companies literally foreclosed to competitors on the face of their agreements – as well as any "preferred placement" agreements for companies that have explicitly complained about the *de facto* exclusive effect of such agreements. Staff believes that this approach is consistent with case law. *See Omega Environmental, Inc.* 127 F.3d at 1162; *Stitt Spark Plug Co.*, 840 F.2d at 1258.

[567] 2011 comScore qSearch20 Report.

[568] *Microsoft*, 253 F.3d at 64; *see also* Robert H. Bork, The Antitrust Paradox 158 (1978) ("But there is no doubt that predation can succeed when the distribution pattern is so much more efficient than the alternative that those forced out of the pattern cannot compete").

[569] *Ryko Mfg. Co. v. Eden Servs.*, 823 F.2d 1215, 1233 (8th Cir. 1987) ("When the degree of foreclosure caused by the exclusivity provisions is so great that it invariably indicates that the supplier imposing the provisions has market power, we may rely on the foreclosure rate alone to establish the violation.").

[570] *See Tampa Electric Co. v Nashville Coal Co.*, 365 U.S. 320, 329 (1961); *In re Beltone Electronics Corp.*, 100 FTC 68, 204 (1982).

[571] *See* Microsoft IR (Jul. 20, 2012); Microsoft IR (Qi Liu, Jul. 23, 2012) (reporting that Microsoft's people search program is better than Google's because Bing has access to Facebook data and that Bing built a better search system for travel queries than Google has.)

[572] IAC IR (Dec. 8, 2011).

[573] *Id.* Indeed, as CityGrid explained, there are approximately 15-17 million individual local businesses that hope to attract local customers throughout the United States. These local businesses are potential advertisers for which search advertising (particularly search advertising serving specialized or "tail" queries) can deliver a very high return for investment. As such, these markets are highly lucrative for Google, and competition for this advertising revenue from specialized web-sites, such as CityGrid and UrbanSpoon, aggregately poses a significant competitive threat to Google. For reference, competition in serving these local and specialized (vertical) markets is the same competitive threat Google contemplated it its 2007 EU planning document entitled, "Online Advertising Challenges: Rise of the Aggregators," wherein Google saw local advertising markets in Europe as having many companies experimenting to lure advertisers it what Google only saw as a "winner take all" market. *See* **CX-116 (GOOG-Texas-1486915-70) (2009)**, at 21.

[574] IAC IR (Dec. 8, 2011).

[575] *Id.*

outside of major syndication platforms (*i.e.*, those with significant query volume, such as AOL and IAC), the company has not been focused on winning new search syndication business. Microsoft IR (Jun. 11, 2012).

[587] *See* Yahoo! IR (Sep. 14, 2011). Google and Yahoo! abandoned their proposed arrangement in the face of a threatened challenge by the Department of Justice. Ultimately, Microsoft and Yahoo! entered into a similar arrangement in 2010.

[588] *See supra* p. 55.

[589] *See, e.g.* **GOOGKAPO-000006280-95** (2010), at 83 (discussing revenue improvements from lowering revenue share and standardizing AdSense agreements with publishers); Business.com IR (Jun. 15, 2012); Time Warner Cable IR (Sep. 8, 2011).

[590] Amazon IR (Feb. 15, 2012).

[591] *Id.*

[592] Google has offered this remedy to the European Commission as part of its settlement proposal. *See* Google-EC Settlement Proposal at 15-16.

[593] Google has offered this remedy to the European Commission as part of its settlement proposal. *See* Google-EC Settlement Proposal at 26-27.

[594] Acquisio IR (Sep. 12, 2011); Resolution Media IR (Nov. 7, 2011); Microsoft IR (Sep. 23, 2011).

[595] Google has offered some version of a non-exclusivity remedy to the European Commission as part of its settlement proposal, but has excluded certain classes of syndication partners from its proposal. *See* Google-EC Settlement Proposal at 21-22. As such, we do not believe that Google's offer is sufficient to remedy the conduct addressed in this memorandum.

[596] Adam Kovacevich, *Google's Approach to Competition*, Google Public Policy Blogspot, May 8, 2009, http://googlepublicpolicy.blogspot.com/2009/05/googles-approach-to-competition.html.