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BY ROBERT J. LEVINSON & MICHAEL A. SALINGER

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BY ROBERT J. LEVINSON & MICHAEL A. SALINGER[1]

In January 2013, the Federal Trade Commission closed its nineteen-month antitrust investigation into Google's search practices. The primary issue in that investigation was Google's use of Universal Search results. The argument that Google's display of Universals violated the antitrust laws appeared to rest on a theory of vertical foreclosure. Under the vertical foreclosure theory, Google's thematic results compete with third-party thematic search sites, and the "proper" role for Google's general search engine was to act as an honest broker among the alternatives. The FTC's investigation and its resolution raised interesting antitrust issues, some of which were novel, and some of which were fundamental to sound antitrust enforcement. Among these are several that we consider in this article: (1) What is the nature of the economic relationship between Google and third parties that receive (and perhaps rely on) traffic referred to them by Google's general search engine?; (2) Is "general search" a relevant antitrust market, and is general search a distinct product or service, inherently separate from thematic search?; and (3) Should innovations by Google that expand the scope of what its general search engine can do—and place it in competition with other websites—be viewed as "monopoly leveraging" or, alternatively, as "innovation competition"?

I. INTRODUCTION

In January 2013, the U.S. Federal Trade Commission ("FTC") closed its nineteen-month antitrust investigation into Google's search practices.[2] The primary issue in that investigation was Google's use of Universal Search Results ("Universals").[3] A Universal is a type of result that appears on Google's general Search Engine Results Pages ("SERPs") that (1) groups a set of results from Google's own thematic search results—that is, specialized search results pertaining to specific themes, such as shopping or information on local businesses—and (2) provides a link to the more complete set of Google thematic results. Publishers of websites that specialized in shopping and local searches evidently complained that Google placed its Universals at higher positions on its SERPs relative to the links to their own sites.[4] The FTC investigated whether this allegedly "biased" conduct constituted an unfair method of competition proscribed by Section 5 of the FTC Act.[5]

The argument that Google's display of Universals violated the antitrust laws appeared to rest on a theory of vertical foreclosure. One possible starting point in the process of purchasing an item or locating a local business online is to enter a query into Google. Google's response might include links to third-party thematic search engines (such as NexTag.com for shopping queries, or Yelp.com for queries made to locate local businesses). The user could then click on a link to such a website, re-enter his query on that site, and receive results tailored

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to the sort of information he is seeking. In such cases, the user would receive information through a two-step process, with Google providing the first step and another firm supplying the second. Google's Universals, in contrast, could respond to general searches on Google with links to Google's own thematic search results.

Under the vertical foreclosure theory, Google's thematic results compete with third-party thematic search sites, and the "proper" role for Google's general search engine was to act as an honest broker among the alternatives. By this reasoning, the FTC should have ascertained whether Google had anticompetitively favored its own thematic results by means of its placement of Universals on its SERPs; and, if such "bias" existed, the FTC should have viewed this as vertical foreclosure of the rival thematic websites.[6]

Another perspective is that Google's development of Universals was an innovation that improved the quality of the information available from Google and the speed at which users obtained that information. This is consistent with the view that general and thematic search engines are not vertically situated in an inherently two-step search process, but instead compete to be the starting point of searches,[7] and that Google's development of Universals was a competitive innovation intended to overcome a disadvantage that general search engines faced in competition with thematic search engines.

In closing its investigation, the FTC accepted that (i) the behavior at issue was innovation in product design, (ii) the third-party thematic websites complaining about Google were competitors rather than suppliers or customers, (iii) harm to competitors from successful product design innovation is a natural consequence of competition, and (iv) antitrust intervention based on such harm could have protected competitors at the expense of competition.[8]

THE FTC'S INVESTIGATION AND ITS RESOLUTION RAISED INTERESTING ANTITRUST ISSUES, SOME OF WHICH ARE NOVEL, AND SOME OF WHICH ARE FUNDAMENTAL TO SOUND ANTITRUST ENFORCEMENT.

The FTC's investigation and its resolution raised interesting antitrust issues, some of which are novel, and some of which are fundamental to sound antitrust enforcement. Among these are several that we consider in this article:

1. What is the nature of the economic relationship between Google and third parties that receive (and perhaps rely on) traffic referred to them by Google's general search engine?

2. Is "general search" a relevant antitrust market, and is general search a distinct product or service, inherently separate from thematic search?

3. Should innovations by Google that expand the scope of what its general search engine can do—and place it in competition with other websites—be viewed as "monopoly leveraging" or, alternatively, as "innovation competition"?

II. GENERAL, THEMATIC, AND UNIVERSAL SEARCH

Internet users sometimes know where to find the information they want. For example, some who want to book a ticket on the 7 AM U.S. Airways shuttle from Washington to New York on a particular date will know that they can do so at www.usairways.com. Others will not.

The information available on the World Wide Web is disorganized and widely dispersed. Users often need help in finding the information they want. America Online ("AOL") offered one early solution—a relatively closed environment that provided the classes of information that AOL expected its subscribers to want. AOL users could navigate outside the AOL environment, but AOL did not help them find the vast amount of content outside of AOL's "walled garden,"[9] that is, on the broader Web.

Another early effort, from Yahoo!, cataloged online content using a hierarchical structure, with broad categories (such as News, Shopping, and Sports), subcategories within each category, and further divisions of subcategories within subcategories. Users "clicked through" these hierarchical levels to find the information they were looking for rather than by entering search query terms. While Yahoo! search maintains this hierarchical index structure to some extent even today, its original approach became impractical as the Web expanded and cataloging all available websites became too time-consuming and expensive.

A. General Search Engines

Today's "general" search engines were made possible by (i) the development of software "Web crawlers" that could index the Web,[10] (ii) proprietary algorithms for matching results to queries, and (iii) schemes for displaying results. Google achieved its initial success because its PageRank algorithm was better at matching websites to queries than were the approaches used by the other general search engines of the time (Lycos, Alta Vista, and Excite). Google's early results were based on a computer algorithm (which rapidly became multiple algorithms) that assigned scores to webpages for each query issued to Google.

The rankings of the resulting "natural" search results—that is, the positions on the Google SERP at which links to these webpages were displayed in response to a specific user query—were based on these scores. Those scores were proxies for a webpage's quality and relevance for any particular query. Improvements to the algorithms that "decide" what information would be the best response to a query were, and remain, a key dimension of innovation competition among Web search providers.

B. Thematic Search

THEMATIC SEARCH (ALSO KNOWN AS "VERTICAL" SEARCH) IS AN ALTERNATIVE WAY TO FIND RELEVANT INFORMATION ON THE WEB.

Thematic search (also known as "vertical" search) is an alternative way to find relevant information on the Web. Thematic search sites that predated Google include Travelocity and Expedia in travel search, and City Search in searches for local businesses.

Thematic search sites have advantages, relative to general search sites, as starting points for queries. One major advantage is that, by using a thematic search site, the searcher can reveal the type of information he seeks. For example, a user who accesses a shopping site and searches for "digital camera" has revealed his intent to obtain information on the characteristics, pricing, and availability of digital cameras, and to possibly purchase one. In so doing he has also suggested that he is not looking for other results that might be returned by a general search engine (such as historical information on the evolution of digital cameras), and avoids receiving such unwanted information.

Thematic search engines also have drawbacks. One is that users must know which thematic search engine to use. Hotels.com is a useful way to locate hotel rooms only when one knows of its existence and how to navigate to it. Users can learn of the nature and location of particular thematic search sites in a variety of ways. One of these is the free publicity afforded by Google's natural search results.[11] This is why "Search Engine Optimization" ("SEO") has become an important aspect of website design.[12] Third-party websites, including thematic search engines, use SEO to achieve frequent and prominent placement in the SERPs of general search engines such as Google. We understand that such thematic search sites complained to the FTC about how Google changed its algorithms and employed Universals.

C. Universal Search

Google understood the natural advantage thematic search sites had relative to general search sites in inferring user intent. Google responded by introducing thematic search sites of its own, such as News,[13] Shopping (originally called "Froogle"), Images, and Video. It introduced Images and Video search because its general search algorithms were ill-equipped to handle such information. Originally, Google's thematic search results were available as tabs near the top of the Google homepage and SERPs.[14] To access Google's video results, for example, a user would click on the Video tab on the Google home page before entering his query, or on the corresponding tab at the top of the general SERP that was returned following his query.

Google's Universals, in contrast, were links to Google's thematic results that appeared on its general SERPs. Each Universal replaced a "blue link" on the page when Google's algorithms assessed a significant probability that the user was seeking the class of information that one of its thematic search engines was designed to capture.

GOOGLE'S UNIVERSALS, IN CONTRAST, WERE LINKS TO GOOGLE'S THEMATIC RESULTS THAT APPEARED ON ITS GENERAL SERPS.

Google's Universals represented a change both in the algorithms Google used to rank results and in how it displayed results. A Universal consisted not only of a link to a full set of thematic results, but also to some of the top listings from its thematic results. For example, the Images Universal would contain a small number of images. The user could click directly through to one of the images from the general SERP without clicking on the link to the full set of Google's thematic Images results.

Google's strategy for delivering better search results therefore proceeded in steps. It first made thematic results available from tabs on the Google home page (before the user entered his query) or on its general SERP (after entering the query). With Universals, Google placed some of its thematic results into the body of its general SERPs, along with other general search results. This represented a probabilistic approach to assessing user intent. If it could ascertain user intent perfectly, then Google would have returned only the results of its shopping search results in response to a "shopping" query made using its general search engine, only the results of news search results in response to "news" queries, and so on. But since two people (or the same person at different times) entering the identical query might be engaged in different classes of search, a general search engine cannot ascertain intent with certainty.

One piece of evidence that Universals are a competitive approach to solving a fundamental shortcoming of general search engines is that Microsoft Bing and Yahoo! have also adopted them. Perhaps the similarity is mere imitation, but the more compelling explanation is that Universals are an appropriate way to remedy limitations associated with earlier general search engines.

D. Universals and the FTC's Investigation

Google's Shopping and Local Universals provided access to two categories of thematic results that also were addressed by third-party thematic search engines. Google's general SERPs did (and still do) sometimes return links to these third-party sites. Nevertheless, publishers of such sites evidently complained that the algorithm generating Google's general SERPs was biased against them, triggering Google's Universals too frequently and placing them too high on its SERPs relative to links to their own sites.

The fundamental facts giving rise to the investigation were therefore as follows: Google began as a general search engine in which users would enter queries and Google would return "blue links"[15] to websites its algorithms identified as best responding to the query. At about the same time, other companies developed thematic search engines.[16] Google's search results often listed these third-party sites in its search results. Google developed its own thematic search algorithms, which were initially available to users as separate results pages. It then placed some of the results of its thematic search results (together with a link to its more complete set of thematic results) into its general SERPs by means of Universals. It fell to the FTC to determine how to view these facts from an antitrust perspective.

III. UNIVERSALS AS COMPETITIVE INNOVATION

Google handled approximately six billion queries per day during 2013 at no charge.[17] Google's websites earned $37.5 billion in advertising revenues during that year.[18] Google has two groups of customers—users and advertisers—and the demand of at least one group depends on that of the other. Advertisers' demand for ads in Google's SERPs depends on users' demand for Google search.

Google's business model is "two-sided." Its success in one side of its business (search advertising) hinges on its success in the other (natural search). In so doing it engages in an active supply relation with both "sides" of its business, supplying users with organic search results in order to stimulate views of (and demand for) the search ads that it sells to advertisers. It does not follow, however, that all businesses that do internet search have a two-sided business model. Two sided businesses can, and frequently do, compete with firms that employ one-sided business markets.[19] For example, commercial broadcast television channels that rely on advertising but provide content to consumers for free, and therefore operate under a two-sided business model, compete with suppliers of video content that is sold directly to viewers on DVDs, subscription internet video streaming services, and non-advertiser-supported cable TV channels such as HBO.[20]

IT DOES NOT FOLLOW, HOWEVER, THAT ALL BUSINESSES THAT DO INTERNET SEARCH HAVE A TWO-SIDED BUSINESS MODEL.

To sell advertising, Google must attract searchers by convincing them that Google is the more efficient way to find the information they want. This relative efficiency depends, at any point in time, not only on what Google offers but, also, on the available alternatives. Google initially attracted many users by providing them with links to websites that might contain the information they were seeking. As efficient as people may have found this "card catalog" approach to be in 1999, however, it does not follow that this approach would have been preferred by users once new and competing services evolved. When Google started, social media did not exist as an alternative way to find information from "friends;" internet search was exclusively a desktop activity with no competition from "thematic" mobile "apps" such as Yelp's; and Amazon had not become a general shopping platform and, therefore, a thematic shopping search engine. One would expect Google to respond competitively to these and other developments, innovating to become the starting point for types of queries that it had previously handled relatively poorly in competition with others that handled such queries.

In assessing whether Google's use of Universals was competitive behavior, a key question to consider is, "With whom does Google compete when it tries to attract people who are searching for information?" No one denies Google's success as a general search engine. But, from the perspective of antitrust enforcement, does it follow that Google is dominant in a relevant antitrust market for general search?

IN ASSESSING WHETHER GOOGLE'S USE OF UNIVERSALS WAS COMPETITIVE BEHAVIOR, A KEY QUESTION TO CONSIDER IS, "WITH WHOM DOES GOOGLE COMPETE WHEN IT TRIES TO ATTRACT PEOPLE WHO ARE SEARCHING FOR INFORMATION?"

One hypothesis is that Google's primary competitor is Microsoft's Bing, the second most widely used general search engine in the United States. The functional similarities of the Bing and Google search engines might cause some to suspect that Google and Bing are the "closest substitutes" in a market for "general search" (which would include Yahoo! as well).

This narrow focus on general search misses two essential points. First, even though Google and Bing are general search engines, there is no such thing as an episode of general search. Each search has a specific intent. Alternatives to general search engines exist as ways of finding different types of information, and general search

engines compete with the relevant alternatives for each type of search. Someone looking to book a flight might consider Google, Bing, Travelocity, Orbitz, Expedia, Kayak, or others as the starting point. Those seeking sports scores would view ESPN.com to be an alternative to Google. The fact that Travelocity would be an odd starting point to look for sports scores does not prevent it from being a competitive alternative to Google for travel searches, and the fact that ESPN.com does not provide travel services does not stop it from competing with Google for the attention of those seeking sports scores.

Second, generality is a feature that Google and Bing share in their competition for different classes of search. Specific product features do not, however, generally delineate relevant antitrust markets. In some cases, a feature can delineate a market if it confers such an advantage that a significant group of customers will only consider products with that feature (or would require a significant price differential to consider products without that feature). Generality is, all else equal, a desirable feature for a search engine, as it saves searchers from having to remember or bookmark different sites for different classes of searches. But this feature has a major disadvantage as well. As already explained, the user intent motivating queries issued to general search engines is inherently more ambiguous than that driving queries issued to thematic search engines. This increases the relative likelihood that the user of a general search engine will receive undesired results. To the extent that Google's innovative efforts focus on overcoming this disadvantage of generality, then a focus on the competition with other general search engines misses a significant dimension of market competition. Google could develop a better approach than Bing and Yahoo! to satisfy the needs of someone who, in search of a digital camera to buy, issues a query for "digital camera," and still have trouble attracting searchers if its approach was not good enough to prevent searchers from going directly to the thematic sites.

TO THE EXTENT THAT GOOGLE'S INNOVATIVE EFFORTS FOCUS ON OVERCOMING THIS DISADVANTAGE OF GENERALITY, THEN A FOCUS ON THE COMPETITION WITH OTHER GENERAL SEARCH ENGINES MISSES A SIGNIFICANT DIMENSION OF MARKET COMPETITION.

On one level, Google competes for users on a query-by-query basis. But individual queries do not delineate internet search markets because no company designs search engines to handle any specific query. They design them to handle classes of queries. This point applies equally to Google and thematic search sites. A substantial portion of Google's innovative efforts is focused on improving its performance for specific classes of queries, in competition not only with other general search engines but, also, with "thematic" search sites. Just as a department store competes with more specialized stores that offer some of the same classes of goods, general search engines compete with specialized search engines that offer one or more of the same classes of searches. Google's development of Universals was part of its fundamental strategy for competing in key categories of search, which are the relevant markets for evaluating the antitrust claims against it. Universals allowed Google's general search engine to address the key informational disadvantage it (and any other general search engine) faces when competing for specific classes of searches.[21]

IV. THE VERTICAL PERSPECTIVE

Google SERPs frequently return links to third-party thematic search sites in response to user queries. A query for "digital camera" on Google's general search engine likely will return, among other things, links to shopping

search sites. In that case, someone interested in buying a digital camera might click on such a link and ultimately accomplish his original intent after retyping the query into the shopping site and choosing one of the offerings that resulted. The third-party thematic search sites that received traffic from Google benefit from this, as would users satisfied with this result. To the extent that Google users were satisfied, Google benefited also (as satisfied users are likely to return).

This process might appear to resemble a vertical economic relationship among firms. It entails two steps provided by different firms. The relationship between Google (as a general search engine) and thematic search sites therefore might seem similar to the relationship between a cement producer and a concrete producer or between a cable television network and a cable system operator. Extending the analogy, Google's development of its own thematic search sites and subsequent decision to place links to those sites on its general SERP resembles vertical integration, and its alleged "bias" toward its own thematic search would then appear to be vertical foreclosure.

A. Google's Relationship to Third-Party Websites

These analogies break down for a simple reason. Concrete producers purchase cement. Cable operators license cable networks. Google does not buy the right to list vertical websites in its natural search results and these third-party thematic websites do not pay for placement.[22] The publishers of websites that appear (or might appear) in Google's natural search results are neither customers nor suppliers. In this specific capacity,[23] they do not have a vertical relationship with Google.

These websites compete with Google, but the economic relationship with Google extends beyond a conventional competitive relationship. Google's natural search creates positive externalities for sites that appear in its results. The sites themselves create externalities for Google, some of which are positive and some of which are negative.[24] Being the beneficiary of positive externalities from Google does not make a website a customer, and providing positive externalities to Google does not make a website a supplier. While websites feel "harmed" when Google reduces or eliminates the positive externalities it generates for them, the "harm" does not constitute antitrust injury. No firm has an antitrust obligation to provide positive externalities to other firms; and providing such externalities does not create an antitrust obligation to continue to do so.[25]

THESE WEBSITES COMPETE WITH GOOGLE, BUT THE ECONOMIC RELATIONSHIP WITH GOOGLE EXTENDS BEYOND A CONVENTIONAL COMPETITIVE RELATIONSHIP.

B. Absence of a Unique Two-Step Process

At issue in the FTC's investigation were episodes of search in which one enters a query into Google and then either clicks on a Google Universal result or a link to a vertical search site. Implicit in the allegation that Google's search results were "biased" in favor of its Universals, and that this constituted anticompetitive "leveraging," is that the opportunity to enter a query and to click on a Universal are two separate products.

That is, the allegations implicitly define each user interaction with Google—either by hitting "Enter" or clicking a mouse—as the consumption of a distinct product.

As George Stigler observed, "Economists … have generally treated as a (technological?) datum the problem of what the firm does—what governs its range of activities or functions."[26] Economic models of leveraging—whether through vertical integration or tying—assume two stages of production, each producing a separate product. The identification of distinct stages of production and products might, as a technological and business matter, be obvious with respect to cement and concrete or video content production and distribution, but the economics literature has not laid out principles that would allow one to accept or refute such distinctions in other, more difficult cases.

While economists have not paid enough attention to this problem, the courts have tangled with this issue. The area of antitrust law that has dealt with this issue explicitly is tying law. As articulated by Justice O'Connor in her concurring opinion in *Jefferson Parish* v. *Hyde*:

> [T]here must be a coherent economic basis for treating the tying and tied products as distinct. All but the simplest products can be broken down into two or more components that are 'tied together' in the final sale. Unless it is to be illegal to sell cars with engines or cameras with lenses, this analysis must be guided by some limiting principle.[27]

THIS "COHERENT ECONOMIC BASIS" FOR A SEPARATE PRODUCTS TEST CANNOT BE LIMITED TO A DETERMINATION OF WHETHER IT IS ECONOMICALLY EFFICIENT TO ONLY OFFER THE COMPONENTS SEPARATELY.

This "coherent economic basis" for a separate products test cannot be limited to a determination of whether it is economically efficient to only offer the components separately. Such a standard might make sense if antitrust analysis and enforcement were both perfect and costless, but they are not. In the real world, a desirable separate products test would limit the set of actionable cases to those involving conduct that likely would lead to consumer harm in the absence of enforcement, and in which enforcement would be unlikely to harm consumers by dampening competition or reducing innovation.

To the extent that such a standard exists in tying law,[28] it is problematic. But Google's use of Universals is not tying,[29] and the facts of the Google investigation differed from a standard tying case in two important ways that make formulating a single product test even more difficult than it is in tying.

In tying cases, selling the tying and tied goods separately is feasible. A hospital can separate its sales of surgical services and anesthesiology. The feasibility of doing so is not sufficient to make products separate, but it is necessary. Such evidence might provoke (but would not prove) allegations of anticompetitive conduct. In the Google investigation, on the other hand, no one seriously suggested that Google should not have developed thematic search and included links to its thematic search results in its general search results. Technology companies like Google routinely compete by adding new functionalities to their products. Hardware companies do so by adding new modules and circuits. Software companies do so by adding new code (and, therefore, new features). These new modules, circuits, and programs are all "components." In many cases an

outside observer might believe that these components could be sold efficiently on an a la carte basis. But this does not mean that consumer welfare would be higher if the firms' competitive product integration decisions were regulated or discouraged. As a result, the need for a limiting principle is even greater here than in standard tying cases.

A second feature that distinguishes the issues in the Google investigation from standard tying cases is that tying doctrine does not prevent a company from offering the tying and tied goods together as long as it offers the tying good separately. Thus, complying with tying doctrine increases the range of options available to consumers. But Google can have only one set of default general search results.[30] Had the FTC chosen to bring an enforcement action, consumers would have faced the prospect of losing some or all access to Universals on Google's SERPs, irrespective of whether they benefitted from having Universals presented to them on Google search pages. Such an outcome would have been much more heavy-handed than a conventional tying remedy, and again highlights the need for a "limiting principle."

HAD THE FTC CHOSEN TO BRING AN ENFORCEMENT ACTION, CONSUMERS WOULD HAVE FACED THE PROSPECT OF LOSING SOME OR ALL ACCESS TO UNIVERSALS ON GOOGLE'S SERPS

While it remains unclear exactly how to formulate a separate products test that provides a sufficiently limiting principle, the general standards for evaluating single-firm conduct provide an alternative doctrinal approach to accomplishing the same objective. The competing standards—(i) balancing, (ii) disproportionate harm, and (iii) "no-economic-sense"—differ according to how they weigh the relative risks and costs of false positives and negatives (meaning false inferences that a violation has occurred or not, respectively). A balancing test treats false positive and false negatives as being equally likely and costly ex ante. A disproportionate harm test is similar to a no-economic-sense test in that it treats the cost and risk of false positives as being greater than the cost and risk of false negatives. A no-economic-sense test treats the costs and risks of false positives as being much greater than the costs and risks of false negatives.[31] With a no-economic-sense test, however, any pro-competitive explanation for a firm's behavior can serve as a valid defense regardless of the size of the claimed efficiency. A disproportionate harm test requires that the efficiencies from the claimed competitive justification not be much smaller than the possible anticompetitive harm.

The same conceptual standard need not apply to all forms of unilateral conduct. As noted above, the Supreme Court's standard for predatory pricing is a no-economic-sense test. It has justified that standard in part to avoid discouraging precisely the sort of price competition that the antitrust laws are designed to encourage and in part out of the view that predatory pricing is a rare and rarely successful tactic.

Google's use of Universal search is a product design decision. The argument for using a no economic sense test with product design is at least as compelling as is the argument with respect to predatory pricing. Product innovation is the most important dimension of competition for a company like Google. The courts and antitrust authorities should be at least as reluctant to chill product

THE ARGUMENT FOR USING A NO ECONOMIC SENSE TEST WITH PRODUCT DESIGN IS AT LEAST AS COMPELLING AS IS THE ARGUMENT WITH RESPECT TO PREDATORY PRICING.

innovation by search engines as it is to chill price competition by a manufacturing business like an oil refiner or a steel company. Moreover, pricing decisions have objective cost standards to serve as benchmarks for courts to judge behavior, for companies to know what behavior is legal, and to serve as the basis for injunctive relief. No such standards are available for product design.

Even with a no-economic-sense standard, one still needs to understand what evidence would lead one to conclude that Google's use of Universals made no economic sense (absent any anticompetitive potential). Should the FTC and ultimately the courts (with the aid of expert analysis) have made their own assessments of whether Google's use of Universals made no economic sense, or should they have deferred to Google's own analysis? Even with the aid of outside experts, one needs to question the competence of the FTC and the courts to assess what makes economic sense with respect to Google's product design. As a result, we believe that sound antitrust enforcement and doctrine should require a finding that Google designed its product in a way that it knew made no economic sense absent the consideration of damaging its competitors.

C. Evaluating Expansions in the Scope of Google's Activities

Whether Google's thematic results are separate products might be viewed as a technical antitrust detail. But there is a broader issue at stake. When the FTC characterized Google's Universals as distinct Google "properties," it implied that Google had integrated into content. We would not characterize Google Universals as "content" that is distinct from search results.

But Google has developed its own content and licensed other content for placement on its SERPs. In doing so, it has expanded beyond its original "card catalog" role. Because Google general search is not a relevant market, Google cannot have a dominant position from an antitrust perspective. And because Google does not have a vertical relationship with the publishers of websites that want to appear in its natural search results, its behavior cannot result in vertical foreclosure. But it is interesting to consider the appropriate antitrust perspective on such behavior even if it were dominant in a relevant antitrust market.

BECAUSE GOOGLE GENERAL SEARCH IS NOT A RELEVANT MARKET, GOOGLE CANNOT HAVE A DOMINANT POSITION FROM AN ANTITRUST PERSPECTIVE.

As useful as it is to have a "card catalog" for the Web, it is plausible and perhaps obvious that getting the information one wants directly from a general search engine is better than having to navigate to another website. Had limits been placed on Google's placement of Universals relative to other website links, it could have faced later demands to justify its placement of its own content relative to links to websites that might contain comparable content. As competition among websites for the attention of users militates toward the direct provision of information (which it has), such limitations on Google would have prevented it from competing effectively. This would have protected competitors at the expense of competition.

V. CONCLUDING COMMENTS

In this article, we have evaluated the allegations that Google's use of Universals violated the antitrust laws. Google might have been expected to advance the "innovation in product design" perspective in its own defense. The "vertical foreclosure" perspective might have been expected from those that complained to the FTC about Google's use of Universals. A careful consideration of both perspectives leads us to conclude Google's use of Universals was not anticompetitive and so did not violate the antitrust laws.

Moreover, the FTC did not have a case because it lacked key elements of proof. It would have had to allege that general search is a relevant antitrust market, but it is not. It would have had to allege that Google had engaged in vertical foreclosure even though Google had no vertical economic relationship with the allegedly foreclosed parties. More fundamentally, however, Google's use of Universals was not an antitrust violation because, in so doing, it was behaving competitively. The FTC was therefore wise, in our view, to close its investigation. ▲

MOREOVER, THE FTC DID NOT HAVE A CASE BECAUSE IT LACKED KEY ELEMENTS OF PROOF.

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[1] Levinson is a Vice President in the Antitrust and Competition Economics Practice of Charles River Associates. Salinger is the Jacqueline J. and Arthur S. Bahr Professor of Management, Boston University School of Management, and is a Senior Academic Advisor to Charles River Associates. Levinson and Salinger were consultants to Google during the FTC's investigation of Google's search practices. The views expressed in this article are the authors' alone, and do not represent those of Charles River Associates or any of its other officers, employees or affiliates.

[2] Google and other general search engines deliver "paid" (i.e., advertising) and "natural" (or "organic") search results. "Natural search results are those listings that appear at the discretion of the search engines and that do not incur a charge to the listed site." WEB 1 MARKETING, INC., INTERNET MARKETING GLOSSARY, *available at* http://www.web1marketing.com/glossary.php?term=natural+search+results (last accessed June 12, 2014).

[3] The scope of this article is limited to the FTC's investigation of Google's use of "Universals." We do not consider other issues raised in the FTC investigation or the European Commission's more recent investigation of Google's practices.

[4] Statement of the Commission Regarding Google's Search Practices, In the Matter of Google Inc. (January 3, 2013) (hereafter "FTC Statement"), at 1-2. *Available at* http://www.ftc.gov/public-statements/2013/01/statement-commission-regarding-googles-search-practices (last accessed June 12, 2014).

[5] FTC Statement, *id*. at 2. The FTC closed its investigation after deposing many Google executives, interviewing numerous other industry participants, and reviewing over nine million pages of documents. *Id*. at 1.

[6] Even if one accepts that the relationship between Google and publishers of thematic search engines was vertical in nature—a proposition with which we disagree—Google's development of Universals would have constituted vertical integration, not a vertical restraint.

[7] The SERP returned by Google in response to the query "Chicago hotels" might include a link to Hotels.com. One can get to Hotels.com without starting at Google, however, and Hotels.com engages in promotional efforts (such as television advertising) to convince people to do so.

[8] FTC Statement, supra note 4 at 2-3.

[9] *See, e.g.*, Chris Gaither, *AOL Plans to Move Offerings Outside its 'Walled Garden' and Onto the Web*, SEATTLE TIMES (April 4, 2005); *available at* http://seattletimes.com/html/businesstechnology/2002229768_aolimage04.html (last accessed June 12, 2014).

[10] The major general search engines index only the "surface Web," i.e., those websites that have not refused access to Web crawlers. *See, e.g.,* Wikipedia, *Surface Web*, available at http://en.wikipedia.org/wiki/Surface_Web (last accessed June 12, 2014).

[11] Users also can learn how to access thematic websites as the result of, e.g., advertising by site operators, site reviews on the Web and elsewhere, access to apps that are specific to the thematic sites, and word of mouth.

[12] For a description of SEO, *see, e.g.,* Wikipedia, *Search Engine Optimization, available at* http://en.wikipedia.org/wiki/Search_engine_optimization (last accessed June 12, 2014).

[13] Google introduced Google News shortly after September 11, 2001, when Google's general SERPs failed to deliver useful results to users who entered the query "World Trade Center." *See* Danny Sullivan, *Google & the Death of Osama bin Laden,* SEARCH ENGINE LAND (May 2, 2011), *available at* http://searchengineland.com/google-the-death-of-osama-bin-laden-75346 (last accessed June 12, 2013).

[14] Screenshots illustrating Google Universals are presented in Michael A. Salinger & Robert J. Levinson, *The Role for Economic Analysis in the FTC's Google Investigation* (June 2013), *available at* http://www.law.northwestern.edu/research-faculty/searlecenter/events/internet/documents/Salinger_Economics_of_Google_and_Antitrust_Case_Searle_conference_version.pdf (last accessed June 12, 2014).

[15] The first page of Google's SERP had ten "blue links." When Google's algorithms identified more than ten possibilities, its results contained additional pages.

[16] We include in this grouping not only "vertical" websites that provided links to different websites, but, also, websites that allowed searches that relied on internally-defined content, such as Amazon.com.

[17] Statistic Brain, *Google Annual Search Statistics, available at* http://www.statisticbrain.com/google-searches/ (last accessed June 12, 2014).

[18] Google, Form 10-K submitted to the United States Securities and Exchange Commission, December 31, 2013, at 27. *Available at* http://investor.google.com/pdf/20131231_google_10K.pdf (last accessed June 12, 2014).

[19] As David Evans and Richard Schmalensee have observed, "[t]wo-sided platforms often compete with ordinary (single-sided) firms and sometimes compete on one side with two-sided platforms that serve a different second side." David S. Evans & Richard Schmalensee, *The Industrial Organization of Markets with Two-Sided Platforms,* 3(1) COMPETITION POL'Y INT'L. 150-179 (Spring 2007).

[20] Movie theaters do now show paid advertisements. If advertising remains a small fraction of their revenue, then viewing them as operating primarily on a one-sided business model remains a reasonable approximation.

[21] The FTC has considered many times whether department stores constitute a relevant product market and have concluded that they do not. *See, e.g.*, Federal Trade Commission, Statement of the Commission

Concerning Federated Department Stores, Inc./The May Department Stores Company, FTC File No. 051-0111 (August 30, 2005), *available at* http://www.ftc.gov/sites/default/files/documents/closing_letters/proposed-acquisition-federated-department-stores-inc.may-department-stores-company/050830stmt0510001.pdf (last accessed June 12, 2014).

[22] Google does sometimes display content that it has licensed or developed itself. Google Maps is an example of vertical integration into content. Google also has vertical relationships with the providers of content it licenses. (For example, the results of a Google search for "Washington weather" will include licensed content about local weather conditions).

[23] Publishers of websites that might appear in Google's natural search results can (and often do) bid to be sponsored links in Google's results. When they do, they are customers.

[24] Whether this externality is positive or negative depends on the extent to which Google users benefit or suffer from the appearance of a link to the site in Google's results. Sites that users ignore (and therefore unnecessarily clutter the SERP) or that turn out not to be useful to those who do click through to them can create negative externalities for Google.

[25] One might argue (as David Evans has to us) that websites are indeed a third side of the Google's business platform because Google puts out information to help websites design themselves to appear more prominently in its organic results. Also, websites can deny crawling access to Google. As a practical matter, Google does not have to compete to get permission to crawl websites. With respect to the information that Google provides websites to facilitate their search engine optimization efforts, the relationship is analogous to the relationship between newspapers and people/organizations that want press coverage. A newspaper benefits from having interesting stories to cover and it might interact with potential subjects to help them understand what is newsworthy and what is not. That interaction does not confer on the subjects of news stories the same (or any) customer status as advertisers and readers have.

Put another way, virtually every business is a "nexus of contracts," meaning that virtually every business is a platform for organizing the interaction of different parties, see Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure,* 3(4) J. FIN. ECON. 305-360 (October, 1976). But not every firm is a multi-sided business. Indeed, most are not. So not every group interacting with a firm is a group of customers. In part, "parties that pay are customers and parties that are paid are suppliers." Another consideration is the centrality of competition to attract the group to the company's strategy. The succinct description of Google's business is that it sells advertising and needs to attract searchers in order to do so. Any sensible economic model of Google would take explicit account of the relationship between the number of searches on Google and the advertising Google sells.

[26] George J. Stigler, *The Division of Labor is Limited by the Extent of the Market,* 59(3) J. POL. ECON. 185-193 (June 1951).

[27] *Jefferson Parish* v. Hyde, 466 U.S. 2 (1984).

[28] The Supreme Court made the single product test a formal part of tying law in Jefferson Parish, and it presumably did so to limit the scope of the per se rule against tying without overturning it. As the appeals court observed in Microsoft, however, the single product test is only a "rough proxy for whether a tying arrangement may, on balance, be welfare-enhancing." *United States v. Microsoft Corp.*, 253 F. 3rd 34 (D.C. Cir. 2001). Given how common tying is, however, it is a basic principle of decision theory that a rough screen is insufficient. *See*

Keith N. Hylton & Michael Salinger, *Tying Law and Policy: A Decision-Theoretic Approach,* 69 ANTITRUST L.J. 469-526 (2001).

[29] Google search is free. Presumably, there cannot be a tie-in sale without a sale.

[30] Google does provide users a set of options, but the defaults clearly matter in a quite fundamental way.

[31] A "no-economic-sense" test would accept the alleged theory of harm (and so the challenged conduct would "fail" the test) when, but for its potential for anticompetitive effects, the challenged conduct would not constitute rational behavior on the part of the alleged perpetrator. An important distinction with respect to a no-economic-sense test is whether, in order to fail the test, a firm's behavior must *qualitatively* make no economic sense but for its potential to create anticompetitive effects, or whether it is necessary for the *quantified magnitude* of the behavior to violate some established benchmark for "making no economic sense." Predatory pricing doctrine illustrates the distinction. One might (qualitatively) argue, in some circumstances, that charging less than the short-run profit-maximizing price makes no economic sense save for its entry-deterring or exit-inducing effects. *In Brooke Group*, the Supreme Court explicitly rejected such claims, finding that alleged "above-cost predation" at prices below profit-maximizing levels do not violate Section 2 of the Sherman Act. *See, Brooke Group v. Brown & Williamson Tobacco Corp.,* 509 U.S. 209 (1993). The requirement instead is that a successful predatory pricing claim be based on a (quantitative) showing of pricing below the relevant notion of cost.