ABUSE OF DOMINANCE IN ONLINE SEARCH: GOOGLE'S SPECIAL RESPONSIBILITY AS THE NEW BOTTLENECK FOR CONTENT ACCESS

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Abstract: *In November 2010, the European Commission announced that it decided to initiate an investigation into allegations that Google Inc. has abused its dominant position in the online search market, in violation of Article 102 TFEU. After reaching its preliminary conclusions on whether Google had acted anti-competitively, the Commission offered the company the opportunity to propose remedies that would address its concerns. However, besides the fact that no settlement has been reached yet, refraining from adopting a formal decision creates a great deal of legal uncertainty because this is the first case of its type that fell under the Commission's scrutiny. The application of EU competition law in cases of algorithm manipulation is particularly interesting from an antitrust perspective because neither competitors nor users pay to access Google's platform. This paper reflects on the line of reasoning the Commission could follow in assessing whether Google has abused its dominant position. It does so, by placing particular emphasis on the informational character of Google's products. The paper takes the view that this type of behavior is particularly harmful not only because it may lead to anti-competitive prices in the advertising markets, but also because in an environment where content is abundant but attention is scarce, the process of selection of contents of interest to the online user is becoming increasingly important.*

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INTRODUCTION

In November 2010, the European Commission announced that it decided to initiate an investigation into allegations that Google Inc. has abused its dominant position in the online search market, in violation of Article 102 TFEU (European Commission, 2010).[2] After reaching its preliminary conclusions on whether Google had acted anti-competitively, the Commission offered the company the opportunity to propose remedies that would address its concerns. This solution has certain advantages; as Commissioner for Competition Joaquin Almunia put it, "these fast moving markets would particularly benefit from a quick resolution of the competition issues identified. Restoring competition swiftly to the benefit of users at an early stage is always preferable to lengthy proceedings".[3] However, besides the fact that no settlement has been reached yet, refraining from adopting a formal decision creates a great deal of legal uncertainty because this is the first case of its type that fell under the Commission's scrutiny. It is by no means clear how undertakings operating in this and neighboring markets should operate in order to comply with EU competition law. If the Commission indeed adopts a commitments decision, one of the many questions that will be left unanswered is what criteria the EU competition watchdog deems appropriate to establish whether a search engine has breached Article 102 TFEU.

This paper reflects on the line of reasoning the Commission could follow in assessing whether Google has abused its dominant position, with a focus on the allegation that Google has manipulated its algorithm to exclude competitors from the Web search. It does so, by placing particular emphasis on the *informational* character of Google's products. The paper takes the view that this type of behavior is particularly harmful not only because it may lead to anti-competitive prices in the advertising markets, but also because in an environment where content is abundant but attention is scarce, the process of selection of contents of interest to the online user is becoming increasingly important. In the European "mediascape", 73% of European households are now connected to the Internet[4] and search engines constitute the main entry gate (European Commission, 2012c: 104). Against this background, search

2 Press Release IP/10/1624, available at: http://europa.eu/rapid/press-release_IP-10-1624_en.htm?locale=en.

3 European Commission, 2012a.

4 European Commission, 2012b: 23.

engines are increasingly evolving into the new bottleneck for content access.[5] For these reasons, making sure that the online search marketplace is open to competition is of utmost importance since it may not only lead to lower prices for advertisers, but also allow consumers to access a wider range of information (i.e. not only the content provided by the search engine itself or its partners) and ultimately make informed decisions.

The paper is divided in three parts. Part 1 provides an overview of the complaints filed against Google and makes a description of its business model. Part 2 reflects on whether manipulating an algorithm can be regarded as an abuse for the purposes of Article 102 TFEU and if so, what type of abuse. Part 3 explores how the anti-competitive concerns related to this practice may effectively be addressed. Finally, some conclusions are drawn.

I. GOOGLE UNDER THE EUROPEAN ANTITRUST MICROSCOPE: THE SCOPE OF THE COMMISSION'S INVESTIGATION

On November 30, 2010, the European Commission announced that it decided to initiate an investigation into allegations that Google Inc. has abused its dominant position in the online search market, in violation of Article 102 TFEU.[6] The decision to open a formal investigation was based on complaints launched by Foundem,[7] a UK price comparison website, Ciao,[8] a German price comparison website and Microsoft subsidiary,[9] and eJustice,[10] a French search engine that allows legal professionals to access case law and legislation for free and enables consumers to find a lawyer that matches their needs. All three complainants are vertical search engines. These are distinct from general search engines in that they index content with reference to a

5 Van Eijk 2009: 141.

6 European Commission, 2010.

7 COMP/C-3/39.740, available at: http://ec.europa.eu/competition/antitrust/cases/dec_docs/39775/39775_505_4.pdf .

8 COMP/C-3/39.775, available at: http://ec.europa.eu/competition/elojade/isef/index.cfm?fuseaction=dsp_result.

9 See, for instance: http://online.wsj.com/article/SB10001424052748703806304576234074125166728.html; http://www.spiegel.de/international/business/complaints-against-search-engine-giant-german-news-media-challenge-google-a-672580.html and http://www.telegraph.co.uk/technology/google/8419729/Google-not-surprised-by-Microsoft-allegations.html.

10 COMP/C-3/39.768, available at: http://ec.europa.eu/competition/antitrust/cases/dec_docs/39775/39775_505_4.pdf.

specific topic, location and/or industry instead of indexing large portions of the Internet through a web crawler.[11] Google is a general search engine, but it also offers vertical search services through, for instance, its price comparison website, Google Product Search.[12] The three complainants argue that Google has abused its dominant position in the general search market by treating them unfavorably in both its paid and unpaid search results while according preferential treatment to its own vertical tools.[13] Before discussing in more detail what these complaints are about, it is essential to explain some key aspects of Google's business model.

Google is an advertising-based medium meaning that it supplies content (search results) for free, and is entirely financed through advertising revenues. Google delivers two types of results, namely unpaid results and paid results/ sponsored links. The unpaid search results, also known as "natural", "organic" or "algorithmic" results, are the results that are returned based on the natural indexing of the website.[14] The paid results or sponsored links are third party advertisements displayed at the top and at the right hand side of Google's search results page.[15] Google sells this ad space through its auction-based advertising platform, AdWords, which allows advertisers to drive interested consumers to their websites. [16] After creating a Google account, the advertiser chooses keywords that are words or phrases relevant to its business and, in this way, its ad appears when a consumer searches for that or related words. [17] The position that an advertiser is allocated in the list of paid search results depends on the bid the advertiser makes for a given keyword and its "Quality Score". The Quality Score is an approximate calculation of how relevant the advertiser's ads, keywords and landing page (i.e. its website) are to a person

11 Case No COMP/M.5727 - Microsoft/Yahoo!, para. 31.

12 http://www.google.com/prdhp.

13 European Commission, 2010.

14 This is the definition given by Webopedia and is available here: http://www.webopedia.com/TERM/N/natural_search.html.

15 European Commission, 2010.

16 http://support.google.com/adwords/bin/answer.py?hl=en&answer=1704410.

17 https://accounts.google.com/ServiceLogin?service=adwords&hl=en_US&ltmpl=jfk&continue=https://adwords.google.com/um/gaiaauth?apt%3DNone%26ltmpl%3Djfk&passive=86400&sacu=1&sarp=1&sourceid=awo&subid=ww-en-et-awhp_nelsontest_con.

seeing its ad.[18] It is determined on the basis of a number of factors, such as the keyword's past click-through rate (i.e. how often that keyword led to clicks on the ad), the quality of the landing page (i.e. how relevant, transparent, and easy--to-navigate the advertiser's website is) and geographic performance (i.e. how successful the advertiser's account has been in the regions it is targeting).[19] It is noted here that the list of indicators determining an advertiser's quality score that is provided by Google is not exhaustive and it is inferred from the above that, in this process, Google uses both quantitative (e.g. the keyword's past click-through rate) and qualitative criteria (e.g. the quality of the advertiser's website). The price an advertiser must pay Google is the bid that it made for a keyword multiplied by its quality score.[20]

Going back to the antitrust investigation, the complainants allege that Google has manipulated both its paid and unpaid search results to exclude competing websites. First, the complainants argue that Google has been lowering the ranking of the organic search results of their services in order to favor its own vertical search services. Second, they accuse Google of influencing paid search results by lowering the quality score of their services.[21] As previously seen, the quality score is a bundle of parameters that determine a. the price the advertiser must pay Google and b. the slot the advertiser is allocated in the display of the paid search results.[22]

In addition to the above, the Commission's investigation concerns the exclusivity obligations that Google imposes on its partners. It was explained above that Google provides space to advertisers interested in promoting their products and/or services on the Google platform. These ads are displayed at the top and at the right hand side of Google's results page. Besides this direct distribution channel, however, Google also provides intermediation services in online advertising. In *Google/Doubleclick*, the Commission explains that "intermediaries pool advertising space made available for sale by publishers and advertisers wishing to buy advertising space and facilitate the matching between the supply of ad space and the demand for ad space

18 http://support.google.com/adwords/bin/answer.py?hl=en&answer=2454010.

19 Ibid.

20 Search Advertising With Google: Quality Score Explanation by Google Chief Economist, available at: http://www.youtube.com/watch?v=qwuUe5kq_O8.

21 Ibid.

22 http://support.google.com/adwords/bin/answer.py?hl=en&answer=2454010.

to place ads".[23] Google provides intermediation services through its AdSense platform: Website owners/online publishers make their ad spaces available by pasting ad codes on their site and select where and how they wish their ads to appear, and advertisers bid to show in these ad spaces.[24] The highest paying ads appear on these sites and Google administers the process of billing all advertisers.[25] According to the information that the Commission has released thus far, Google imposes upon the website owners the obligation to acquire all or most of their search advertisements from Google which may result in crowding out competing providers of intermediation services.[26] In addition, the Commission expressed concerns about alleged restrictions on the portability of online advertising campaign data to competing online advertising platforms. More particularly, the Commission is worried about Google imposing exclusivity obligations on software developers that prevent them from designing tools that would enable the consistent transfer of search advertising campaigns across AdWords and other platforms for search advertising.[27] This means in essence that an advertiser that initially chose Google to advertise its products is inhibited from using another platform, for instance, Microsoft's Bing.[28]

Finally, concerns were raised about how Google copies content from competing search engines and uses it in its own offerings without their prior authorization (a practice also known as scraping) (European Commission, 2012a). The Commission feared that this may reduce Google competitors' incentives to invest in the creation of original content to the detriment of consumers.

23 Case No. COMP/M.4731 Google/Doubleclick, para. 18

24 https://accounts.google.com/ServiceLogin?service=adsense&rm=hide&nui=15&alwf=true&ltmpl=adsense&passive=true&continue=https://www.google.com/adsense/gaiaauth2&followup=https://www.google.com/adsense/gaiaauth2&hl=en_US.

25 Ibid.

26 European Commission, 2010.

27 European Commission, 2012a.

28 See here how this import of ad data from Google to Bing can take place: http://advertise.bingads.microsoft.com/en-us/product-help/bingads/topic?query=MOONSHOT_PROC_ImportCampaign.htm.

To sum up, the Commission finds that Google's conduct raises antitrust concerns as regards the following practices:[29]

– Manipulating the algorithm to downgrade competitors' sites in its unpaid search results;
– Manipulating paid search results by lowering the quality score of competitors' services;
– Imposing anti-competitive contractual restrictions on its partners by prohibiting them to show advertisements of Google's competitors as well as by restricting the portability of their advertising campaigns to competing platforms and;
– Copying competitors' content without prior authorization (scraping).

This paper will focus on the practice of manipulation, and in particular the practice of downgrading competitors' services in the list of organic results. As opposed to exclusivity restrictions, which are not new to antitrust law, and scraping, which has already been addressed in decisions adopted by competition authorities in Europe and beyond,[30] no decision with respect to the practice of manipulation has been adopted yet. The application of EU competition law in

29 It is worth noting that on March 30, 2011 Google's competitor Microsoft (Bing is Microsoft's general search engine) announced that it has also filed a complaint regarding Google's conduct with the Commission. In a contribution to its blog, which was posted by Brad Smith, Microsoft's Senior Vice President & General Counsel, Microsoft stated that it drew the Commission's attention to six main issues: a. the restrictions that Google seems to have introduced after it acquired YouTube to prevent competing search engines from accessing it for their search results (access); b. the restrictions that Google seems to have introduced to prevent Microsoft's new Windows Phones from operating properly with YouTube (interoperability); c. Google's attempts to acquire exclusive access to "orphan books", i.e. books for which no copyright holder can be easily traced; d. restrictions on the portability of online advertising campaign data to competing online advertising platforms; e. contractual restrictions on advertising partners/website owners/online publishers that prevent them from distributing competing search boxes and f. unfavorable treatment to potential competitors by making it more costly for them to achieve visibility in Google's paid search results. For more information see: http://blogs.technet.com/b/microsoft_on_the_issues/archive/2011/03/30/adding-our-voice-to-concerns-about-search-in-europe.aspx.

30 In Italy, AGCOM opened in 2009 an investigation into alleged tying between Google Search and Google News: The Italian Association of Newspaper and Magazine Publishers had complained that publishers were not able to control the articles that were used in Google News. Moreover, in case they extracted them from the news aggregation platform, their publications would be excluded from Google Search altogether. AGCM drew the preliminary conclusion that Google was abusing its market power and ultimately imposed upon the search giant certain undertakings that would address concerns related to the effects of Google's conduct on newspapers. A summary of the case with the commitments that were found adequate to address AGCM's concerns is available at: http://www.agcm.it/stampa/news/5194-a420-as787-antitrust-accetta-impegni-di-google-e-chiede-al-parlamento-di-adeguare-le-norme-sul-diritto-dautore.html Similar complaints were also investigated by the Federal Trade Commission in the U.S. For more information see, for instance, http://www.theguardian.com/technology/2013/jan/03/google-cleared-search-bias-investigation.

cases of downgrading is particularly interesting from an antitrust perspective because neither competitors nor users pay to access Google's platform.

II. ABUSE OF DOMINANT POSITION IN ONLINE SEARCH: GOOGLE'S SPECIAL RESPONSIBILITY AS THE NEW BOTTLENECK FOR CONTENT ACCESS

For Article 102 TFEU to apply, there must be evidence that Google has abused its dominant position to impair genuine undistorted competition in the common market. As I mentioned above, the complaints that have triggered the Commission's investigation and with which this paper deals have focused on the ways in which Google displays its search results. More particularly, the complainants argue that Google downgrades competitors' web pages in order to exclude them from the Web search. The questions that therefore seek for an answer here are the following: Can the manipulation of the results Google delivers to the users be regarded as an abuse of dominant position for the purposes of Article 102 TFEU? If so, how can the harm caused to competition be undone?

a. Does manipulation of search results fall under Article 102 TFEU?

The Commission's investigation is ongoing which means that the following analysis rests on the assumption that Google has indeed maneuvered its algorithm to favor its own products. While reaching this conclusion depends on a careful examination of factual evidence, an overview of certain Google practices provides some indicia that the complaints filed with the Commission are not unfounded. One such practice relates to how Google applies its "**host--crowding rule**". This rule forms part of a set of best practices that Google has designed over the years and aims at eliminating the duplication of search results in order to safeguard diversity in the search.[31] On the basis of the host--crowding rule, if, following a given query, there are many results in a single web directory, only the two most relevant results for that directory appear in the list of organic results.[32] However, Google refrains from applying this rule to its own services. As will be seen in greater detail below, Google has adopted

31 https://developers.google.com/search-appliance/documentation/50/admin_searchexp/ce_improving_search.

32 https://developers.google.com/search-appliance/documentation/50/admin_searchexp/ce_improving_search#h2hostcrowding.

a universal model whereby, following a given query, the algorithm searches all of its content sources, for instance, Google News, YouTube, Google Maps, etc.[33] and delivers more than two results found in its directory per page, in clear contradiction with the host-crowding rule. It is also worth mentioning that disabling this filter, a process that may lead to more relevant search results as Google itself admits,[34] requires that the user a. is aware of the fact that Google applies a host-crowding rule and b. knows how to disable it.[35]

Besides the exemption from the host-crowding rule, Google also seems to engage in **manual manipulation** of the search results it delivers. There are some signs that point to this direction. While Google's "Explanation of Our Search Results Page" used to read "[a] site's ranking in Google's search results is ***automatically*** determined by computer algorithms" [emphasis added], in May 2007 this statement changed to "[a] site's ranking in Google's search results ***relies heavily*** on computer algorithms" [emphasis added] (Vaidhyanathan, 2011: 66).[36] Likewise, Google's guarantee that "***[t]here is no human involvement or manipulation of results***, which is why users have come to trust Google as a source of objective information" [emphasis added] (Pasquale 2006: Fn. 11), has been substituted by the statement "[w]e have always taken ***a pragmatic approach*** to help improve search quality" [emphasis added].[37]

The above remarks indicate that Google may have indeed been "cooking" its algorithm to advance its own interests. "*So what?*" one might say. Google has invested significant amounts of time and money in its business. Microsoft itself stated: "[W]e should be among the first to compliment Google for its genuine innovations, of which there have been many over the past decade. […] Google has done much to advance its laudable mission to 'organize the

33 http://googlepress.blogspot.com/2007/05/google-begins-move-to-universal-search_16.html .

34 Ibid. Google states that "[i]n some situations, you can turn off host crowding by disabling one or more automatic filters to produce better relevancy".

35 The user needs to modify the filtering parameters that Google has pre-set. More information can be found in the Search Protocol Reference under the Filtering Section: https://developers.google.com/search-appliance/documentation/50/xml_reference.

36 This statement has remained intact since. See http://www.google.com/explanation.html.

37 See, for instance, http://www.live2support.com/newsletter/2009-08/demystifying_google_page_rank.php; http://wpsites.net/seo/page-rank-check-the-page-rank-of-your-website-here/2/ and http://tech.fortune.cnn.com/2011/02/04/what-ever-happened-to-pagerank/.

world's information' […]".[38] Reaping the benefits of one's own investment is the very essence of competition, the main reason why companies innovate. However, this does not give a dominant undertaking a *carte blanche* to behave as it pleases. In EU competition law terms, the dominant firm has a special responsibility not to allow its conduct to distort competition in the common market.[39] In the case of a search engine enjoying market power, this obligation should be construed with reference to the *informational* character of the product the engine offers. In information markets, price is definitely not the only and possibly not the most relevant dimension of competition. This is particularly the case where information is provided for free. In their discussion of how US antitrust and consumer protection laws support one another as the two component parts of an overarching unity, this being consumer sovereignty, Averitt and Lande (1997: 752-753) note that in communications markets diversity of options may be far more important to consumers than price competition. This argument is equally valid for EU competition law. The Commission itself states in its Guidance on the application of Article 102 TFEU that it "will focus on those types of conduct that are most harmful to consumers. ***Consumers benefit from competition through*** *lower prices,* ***better quality and a wider choice of new or improved goods and services***" [emphasis added].[40] These remarks must be combined with the fact that search engines constitute the main Internet gateway with the average percentage of the European Internet audience using a search platform to obtain information amounting to 71%.[41] Against this background, the belief that "[t]o exist is to be indexed by a search engine"[42] is now becoming commonplace.[43]

38 http://blogs.technet.com/b/microsoft_on_the_issues/archive/2011/03/30/adding-our-voice-to-concerns--about-search-in-europe.aspx.

39 Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings 2009 OJ [C 45/02], para. 1.

40 Ibid., para. 5.

41 European Commission 2012c: 104.

42 Introna & Nissenbaum 2000: 171.

43 The European Commission itself provides guidance on how to optimize our content so that it can be found and indexed by search engines (this practice is also known as Search Engine Optimization). In these guidelines, the Commission explicitly states: "The goal is to ensure your site appears in the 1st page of search results - the only one that counts, as users rarely look past this page". For more details see: http://ec.europa.eu/ipg/content/optimise/seo/index_en.htm.

This being the starting point of an abuse assessment under Article 102 TFEU, a line must be drawn between a dominant undertaking that devises an algorithm which it subsequently modifies to deliver better search results and a dominant undertaking which manipulates an algorithm to reduce the visibility of competing undertakings on the web search. In the first case, the design of the initial algorithm and the modifications that follow can be thought of as setting up a media outlet and making editorial choices with the objective to make the medium more attractive to the audience members. These activities undoubtedly involve subjective parameters, but they do not give rise to competition concerns. In the second case, however, the goal is not to improve the online experience, but to drive out of business competing sources of information that would allow the consumer to make informed decisions. This type of conduct impairs competition in content markets and should therefore be condemned. The theory of harm in this case is that of leveraging: By manipulating its search results, Google attempts to leverage the power it enjoys in the general online search marketplace in order to enhance its position in the market(s) for vertical search.

The practice of manipulating is new to the antitrust world, hence, the application of Article 102 TFEU raises several interesting questions. It could be argued that downgrading the competitors' vertical search engines in the list of general search results amounts to a refusal to supply. The leading judgment on this matter is *Commercial Solvents* in which the Court ruled that a firm that holds a dominant position in the market for raw materials and refuses to supply an undertaking that competes with it in the market for the derivative so that it can eliminate competition therein acts in violation of Article 102 TFEU.[44] Similarly, in *Magill*, the Court found that, since the broadcasting companies under investigation "denied access to the basic information which is the raw material indispensable for the compilation of [weekly television] guides", they "reserved to themselves the secondary market of weekly television guides by excluding all competition on the market".[45] This is not precisely the case here as Google does not refuse to display the websites of its competitors entirely but downgrades them, which is different. But maybe downgrading

44 Cases 6/73 and 7/73 ICI and Commercial Solvents v Commission [1974] ECR 223.

45 Judgment of the Court of 6 April 1995 - Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission of the European Communities - Joined cases C-241/91 P and C-242/91 P, para. 56.

isn't that different from refusing to display. An examination of how online users consume search results can provide some guidance here. Research results indicate that almost 95% of online users are limited to clicking on the results that are displayed in Google's first page.[46] It is also worth mentioning that research conducted a few months before the Commission opened its investigation showed that the first spot in Google's first page drove more than 34% of all traffic in the sample, "almost as much as the numbers 2 through 5 slots combined, and more than the numbers 5 through 20".[47] A more recent study shows that the top result gets 36,4% of the clicks.[48] The Commission itself gives instructions as to how to optimize content so that it can be found and indexed by search engines and advises respectively: "The goal is to ensure your site appears in the 1st page of search results - the only one that counts, as users rarely look past this page".[49] It is therefore clear that if Google's first page bombards consumers with search results directing to its own services, competing websites will not manage to achieve exposure to a significant percentage of online users. If the Commission interprets refusal to supply with reference to how the search results Google offers are consumed, this conduct may be regarded as "constructive refusal", which includes a situation where the dominant undertaking degrades the supply of the product.[50] On the basis of the above remarks, downgrading competing services in the list of organic results thereby reducing their visibility diminishes the quality of the platform that would have a higher value absent the manipulation.

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46 See, for instance, http://chitika.com/insights/2010/the-value-of-google-result-positioning/; http://www.gravitateonline.com/google-search/2nd-place-1st-place-loser-seriously and http://www.seo-scientist.com/google-ranking-ctr-click-distribution-over-serps.html.

47 http://chitika.com/insights/2010/the-value-of-google-result-positioning/.

48 http://searchenginewatch.com/article/2049695/Top-Google-Result-Gets-36.4-of-Clicks-Study Access to the study is possible through http://www.optify.net/inbound-marketing-resources/new-study-how-the--new-face-of-serps-has-altered-the-ctr-curve.

49 For more details see: http://ec.europa.eu/ipg/content/optimise/seo/index_en.htm.

50 Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings 2009, para. 79. For an overview of how the European Commission among other antitrust authorities around the world deal with constructive refusal to supply see International Competition Network, Report on the Analysis of Refusal to Deal with a Rival Under Unilateral Conduct Laws, April 2010, prepared by the Unilateral Conduct Working Group and Presented at the 9th Annual Conference of the ICN Istanbul, Turkey. For the definition that the Commission gives to the term "constructive refusal to supply see Commission Decision 1999/243/EC Trans-Atlantic Conference Agreement (TAC), Case COMP/35.134 (OJ L 95, 9.4.1999, p. 1), para. 553 and Commission Decision of 25 July 2001 relating to a proceeding under Article 82 of the EC Treaty (COMP/C-1/36.915 – Deutsche Post AG – Interception of cross-border mail) OJ L 331/40, para. 141.

Having established that this practice may be perceived as refusal to supply, pursuant to the Commission's Guidance on the enforcement priorities in applying Article 102 TFEU, three criteria need to be fulfilled for Google's behavior to be condemned.[51]

First, the refusal must relate to a product or service that is objectively necessary to be able to compete effectively on a downstream market: In this assessment, it is not necessary to prove that no competitor could ever penetrate or survive in the downstream market (in an Opinion touching upon these issues, the French Competition Authority, Autorité de la Concurrence, found that the barriers to enter the market for specialized or vertical search are not as significant as the entry barriers in the general search sector[52]), but examine whether competitors "could effectively duplicate the input produced by the dominant undertaking in the foreseeable future".[53] Google's lead in algorithmic technology combined with indirect network effects and downward spirals the latter generate are factors that the Commission needs to take into account in the assessment of whether this condition is met.

Second, the refusal is likely to lead to the elimination of effective competition on the downstream market: In its Guidance, the Commission lays down that the likelihood of effective competition being distorted is greater the higher the market shares the dominant undertaking holds in the downstream market.[54] While the ways in which a competition authority can conduct its analysis to check whether a search engine enjoys market power falls outside the scope of this paper, it should nevertheless be pointed out that, considering how rapidly the online search sector evolves, market shares may not be a manifestation of dominance. Google operates in what is called a "new economy" market, a term which is used to define markets where competition revolves more around innovation rather than price. In these markets, the undertaking that has a lead in innovation will dominate the market. Yet, this position may be ephemeral as it can easily be overtaken by a competitor that manages to

51 Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, para. 81.

52 French Competition Commission 2010, Opinion No 10-A-29 of 14 December 2010 on the competitive operation of online advertising, para. 259, available at: http://www.autoritedelaconcurrence.fr/doc/10a29_en.pdf.

53 Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, para. 83.

54 Ibid., para. 85.

develop a more innovative technology[55]. Consequently, an excessive reliance on market shares may lead to the erroneous conclusion that an undertaking facing significant competitive pressure is dominant. It is therefore suggested that the Commission place particular emphasis on the constraints under which Google's competitors are under, e.g. high entry barriers for newcomers, difficulties that already existing operators face in enhancing their algorithms, no access to valuable inputs such as user data, etc.

Finally, the refusal must be likely to lead to consumer harm. Since search results are provided for free, it cannot be argued that Google's refusal to supply will lead to higher prices. However, it may well be argued that, as a result of this behavior, consumers are deprived of accessing a broader range information or higher quality search results. As previously noted, the Guidance itself sets the basis for this type of analysis.[56]

A further option would be to assess whether Google's behavior amounts to abusive tying that is caught by Article 102(d) TFEU. In this case, the Commission could argue that the supply of Google's general and vertical search services are tied and that Google harms consumers by foreclosing the market for vertical search. If we follow the Commission's standard antitrust analysis in cases involving two-sided markets, and in particular advertising-based media markets, in which a trading relationship (and therefore a market) exists only where there is an exchange of money for a service,[57] we would not be able to establish tying where products are offered at no cost. However, despite the fact that access to the results delivered by general and vertical search engines does not usually involve the exchange of money for content, the relationship between online users and search engines is based on an exchange of value (attention for content) that can properly be defined as trade. In that respect, Google's behavior fits the Commission's definition of tying as a situation where "customers that ***purchase*** one product are required also to ***purchase***

55 Van Loon, 2012: 14.

56 Ibid., para. 5.

57 For example, in the case of free-to-air TV, the Commission finds that there is a trading relationship only between the program supplier and the advertising industry. See, for instance, Commission Decisions *Telenor/Canal+/Canal Digital*, Case COMP/C.2/38.287, [2003] OJ C 149/10 para. 28, *BSkyB/Kirch Pay-TV*, Case COMP/JV.37, [2000] OJ C 110/45, para. 24, *Bertelsmann/Kirch/Premiere*, Case IV/M.993, [1999] OJ L 053/1, para. 18 and *Kirch/Richemont/Multichoice/Telepiù*, Case IV/M.584, [1995] OJ C 129/6, para.15. I have discussed elsewhere the problems that arise if we follow this approach. See Bania, 2013.

another product from the dominant undertaking" [emphasis added].[58] One example illustrating why Google's behavior may amount to abusive tying is the launch of Google Universal Search. In May 2007, Google announced that it adopted a universal search model whereby, following a given query, the algorithm would search all its content sources, for instance Google News, Google Maps, YouTube, etc., rank all the information in its possession and deliver an integrated set of results.[59] Google stated that "[t]he ultimate goal of universal search is to break down the silos of information that exist on the web and provide the very best answer every time a user enters a query".[60] Did, however, Google break these silos of information or has it created new so that users consult mostly or only its own vertical tools? In its announcement of the launch of Universal Search, Google explained how this service would work by giving the following example:

> "[A] user searching for information on the Stars War character Darth Vader is likely interested in all the information related to the character and the actor – not just web pages that mention the movie. Google will now deliver a single set of blended search results that include a humorous parody of the movie, images of the Darth Vader character, news reports on the latest Lucas film, as well as websites focused on the actor James Earl Jones – all ranked in order of relevance to the query".[61]

Now, if a user types Darth Vader, what kind of results does she get in return? In the first page, in the list of organic results, there appears a result from Google Images, two results from YouTube and a result from Google News whereas in the "paid" search results list there appears only one link that directs the user that is interested in buying Darth Vader costumes to Google Shopping. Thus, Google seems to create circumstances under which use of its vertical search instruments is in essence tied to its general search engine.

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58 Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, para. 48.

59 http://googlepress.blogspot.com/2007/05/google-begins-move-to-universal-search_16.html.

60 Ibid.

61 Ibid.

However, tying is not always unlawful as it may intend to provide customers with better products or offerings.[62] In its Guidance, the Commission lays down the following three requirements that need to be met cumulatively for tying to be considered abusive.[63] First, the firm has a dominant position in the tying market: This criterion is fulfilled if Google is found to hold significant market power in attracting users and advertisers to its general search platform. Some parameters that can be considered in the dominance analysis have already been referred to above. Second, the tying and tied products are two distinct products. General and vertical search engines are likely to be characterized as two different products. While substitutability between general and vertical search engines from the advertisers' perspective is still unsettled, users are less likely to switch from a general to a vertical search engine if the former provides low quality search results. This is so, not only because there is a significant information asymmetry in these cases (users are not in a position to verify whether Google provides the most relevant results), but also because the type of content general search engines provide is different from the one that vertical search engines offer. As the Commission put it in *Microsoft/Yahoo!*, "[g]eneral internet search must be distinguished from vertical internet search, which focuses on specific segments of online content such as for example legal, medical, or travel search engines. Contrary to general internet search engines, which index large portions of the internet through a web crawler, vertical search engines typically use a focused crawler that indexes only web pages that are relevant to a pre-defined topic or set of topics".[64] Finally, the tying practice must be likely to lead to anti-competitive foreclosure. It is not necessary to prove that tying has had anticompetitive effects on both markets.[65] In this case, it would suffice to demonstrate that Google's tying can foreclose the market for vertical search.

A third type of abusive behavior that can be considered here is discrimination which falls under Article 102(c) TFEU prohibiting "applying dissimilar conditions to equivalent transactions with other trading partners, thereby

62 Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, para. 49.

63 Ibid., para. 50.

64 Case No COMP/M.5727 Microsoft/Yahoo!, para. 31.

65 Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, para. 52.

placing them at a competitive disadvantage". At first sight, and following a stringent interpretation of this provision, Article 102(c) TFEU seems to condemn only price discrimination[66] and cannot therefore be invoked to condemn the downgrading of competing websites in the list of search results. However, as previously mentioned, concepts such as "transaction" and "trading partners" should not be narrowly construed under EU competition law in that there are cases where trade does not necessarily involve the exchange of money for somebody's goods or services. To the author's knowledge, there is no Court ruling or Commission decision rejecting an argument that a firm has abused its dominant position by engaging in non-price discrimination. An approach limiting the scope of this prohibition to price discrimination would be flawed in that it would fail to capture other types of biased conduct that may be particularly relevant to new economy markets and markets for the supply of free content where competition is mostly driven by innovation and quality.[67] Economides, who has extensively discussed market power creation and types of abusive behavior in network industries finds that, in addition to pricing strategies, dominant firms are incentivized to use non-price discrimination to leverage their power across markets.[68] Now, departing from what was argued above, the term "transactions" under Article 102 TFEU can be understood as the "transactions" that Google concludes with its own vertical search services on the one hand and the competitors' websites on the other. Google pays neither its own vertical search engines nor its competitors to appear in its organic results, but uses them to provide relevant information to the users on whom it depends to generate advertising revenues. In their turn, competing websites need the platform to reach Google's large user base. In that respect, there is an exchange of value that can be defined as transaction for the purposes of Article 102(c) TFEU. Moreover, there is a price dimension (price in its narrow sense) that is relevant to the analysis and is reflected on the advertising side of the market. Firms that do not manage to get some space in the first page of the search results may increase their investment in their AdWords

66 Price discrimination has been the focus of both the EU institutions and the relevant literature. For an overview see, for instance, Geradin et al., 2005; Ridyard, 2002 and Waelbroeck, 1995.

67 It was mentioned above that in its Guidance the Commission states that, in addition to price, it will take into account several other dimensions of competition and in particular better quality and a wider choice of new or improved products and services. See Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, para. 5.

68 Economides, 2010: 370. See also Economides, 1998: 271–284.

campaigns. The "dissimilar conditions" refer to the downgrading of competing websites and the preferential treatment Google affords its own services. Finally, it was examined above why such practice may place competitors at a competitive disadvantage. Following this approach, Article 102(c) TFEU catches types of discrimination that are more related to the quality rather than the price of the service that the dominant firm offers.

b. Proposals for unbiased Google search

In the preceding paragraph, I argue that a line must be drawn between algorithmic updates that are made in order to enhance the online experience and changes that are introduced to the algorithm with the sole aim to exclude competing websites. It is also reminded that Google can manipulate its search results either mechanically (through the insertion of relevant modifications in the algorithm) or manually and that such manipulations should arguably be condemned by the Commission considering Google's special responsibility as the most powerful firm in online search and its role as the most important gateway used to find content in today's online environment. But, how can effective competition be restored in these cases? The Regulation on the implementation of the rules on competition lays down that, in case the Commission decides that an undertaking has acted in violation of Article 102 TFEU, it may require it to bring such an infringement to an end and impose on it any behavioral or structural remedies.[69] The Regulation stipulates that a remedy must have two characteristics that is, a remedy must be effective and proportionate to the violation committed. As regards the effectiveness criterion, the Court has ruled that remedies may not be restricted to a cease and desist order, but may also seek to eliminate or neutralize the effects that the anticompetitive behavior has had on competition.[70] With respect to the proportionality condition, when there are various appropriate measures that can be taken to address the problem, recourse must be had to the least onerous whereas the burden that the violator must bear should be proportionate to the goals pursued.[71] Having these principles in mind, what type of remedy

69 Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, Article 7(1).

70 See Case 6/72 Europemballage and Continental Can v Commission [1973] ECR 215, paragraphs 24 and 25 and Case C-119/97P Ufex v Commission [1999] ECR I-1341, para. 94.

71 Opinion of Advocate General Kokkott in Case C-441/07 P, para. 46. On the principle of proportionality in the application of EU competition law see Lianos, 2011.

can undo the harm that Google has caused to competition by manipulating its search results? Note that the Commission's practice cannot provide useful guidance here because the only case of direct interest to the online search universe is *Microsoft/Yahoo!*,[72] a merger which the Commission permitted without the imposition of remedies.

In April 2013, Google submitted proposals in an attempt to address the problems the Commission had identified. More particularly, with respect to the practice of downgrading, Google offered for a five-year period to a. label promoted links to its own specialized search services so that users can distinguish them from natural search results; b. separate these links from other search results by graphical features (e.g. a frame) and c. display links to three competing search engines close to its own services, in a place that is visible to the users.[73] However, following a market test, the Commission decided that the suggested undertakings were not sufficient to address its concerns. In the author's view, those who opposed the acceptance of the above commitments raised some convincing arguments as to why Google's suggestions were not adequate to restore competition in the affected markets. For example, the proposal to display links to three competing services justifiably raised the question of who determines the promotional parameters. If that is Google, then the commitment would give it a wide margin of discretion that could lead to arbitrary results thereby falling short of resolving the issue of discriminatory choices for users.[74] The undertaking to separate links to Google services from links to competing services may have an effect opposite to the one desired as it may induce the consumers to click on the result which is highlighted in a frame.[75] Moreover, there are no limitations as to where Google can display universal search results on the page (the way search results are consumed and

72 Case No COMP/M.5727 - *Microsoft/Yahoo!* In this case, the Commission was called upon to decide whether the acquisition by Microsoft of control of the online search and search advertising businesses of Yahoo! could impede effective competition in the common market. While it acknowledged that the notified operation had an impact on the provision of both internet search and search advertising services throughout the EU and that a market investigation could lead to the conclusion that a separate market for internet search could be defined, the Commission decided to abstain from conducting an analysis discussing the impact of the operation on online search and limited its scrutiny to the effects of the concentration on the advertising market. Another decision in this area is Case No. COMP/M.4731 Google/Doubleclick. This operation, however, affected advertising markets (Doubleclick does not provide online search services).

73 The text of the proposed commitments is available at: http://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_8608_5.pdf.

74 http://www.eubusiness.com/Members/BEUC/google-2/.

75 Ibid.

how Google's universal model may affect consumption of information provided by competing services have already been discussed above).[76] Considering the above, it comes as no surprise that these terms were argued to be "entirely trivial".[77] In October 2013, Google proposed a second package of undertakings (arguably, these are not substantially different from those initially proposed[78]), which was again rejected by the Commission.[79] At the time of writing, no settlement has been reached.[80]

Turning to what the industry has to say, some of Google's main competitors have formed alliances that made some suggestions as to how the competent antitrust authorities can deal with the manipulation of search results. For example, the Initiative for a Competitive Online Marketplace[81] highlights the importance to prevent Google from structuring its search results for exclusionary purposes and to oblige it to become more transparent as regards the ways in which it displays them. To this end, a remedy should ensure that Google does not use criteria that would jeopardize neutrality in the Web search such as whether the site or the service in question is provided by Google or by one of Google's partners, whether the site provides services competing with those offered by Google and whether it has filed a complaint against Google.[82] Similar suggestions are made by another alliance, Fair Search.[83] To implement these proposals, it has been suggested to establish a technical committee that would be entrusted with checking whether Google complies with these non--discrimination requirements.[84]

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76 http://searchengineland.com/googles-new-european-antitrust-serps-heres-what-theyll-look-like-156904.

77 http://www.forbes.com/sites/timworstall/2013/04/25/googles-entirely-trivial-settlement-with-the-european-commission/.

78 For a criticism of the new set of commitments by industry representatives see, for instance: http://www.magazinemedia.eu/wp-content/uploads/Publishers-Comments-on-Second-Set-of-Proposals_13-11-13.pdf and http://www.enpa.be/en/news/press-release-european-publishers-urge-the-commission-for-a-prohibition-decision-in-the-google-competition-case_106.aspx.

79 For recent developments see Almunia, J. Speech 13/768 http://europa.eu/rapid/press-release_SPEECH-13-768_en.htmhttp://europa.eu/rapid/press-release_SPEECH-13-768_en.htm.

80 Shortly before this article was published, the Commission announced that it is close to reaching a settlement with the company. For more details see Speech 14/93 of 05/02/2014, available at: http://europa.eu/rapid/press-release_SPEECH-14-93_en.htm

81 ICOMP, 2011: 36-37.

82 Ibid.

83 Fair Search, 2011: 41.

84 Schonfeld, 2011.

These recommendations have been subject to considerable discussion with many taking the view that they would be both inappropriate and difficult to apply. It has been argued *inter alia* that Google's obligation to display search results in a non-discriminatory fashion would be impossible to define in concrete terms because relevance is a fluid concept. Ammori and Pelikan (2012: 12) illustrate this point by giving the following example: "*What is the "right" ranking? Is a profile page on Google Profiles more relevant than an AOL About.me page or the user's 'about the author page' on his or her blog […]?*" Indeed, as previously mentioned, the design of an algorithm depends on subjective parameters that greatly resemble the editorial choices a media outlet makes in order to reach the widest possible audience. Thus, striking an objectivity balance insofar as the provision of relevant results is concerned is a task that cannot be performed unless the Commission dictates the parameters on the basis of which Google can perform its algorithmic updates. It is clear that in the online search sector, which is transformed on a daily basis, straightjacketed rules are likely to undercut innovation thereby harming the consumer. Ammori and Pelican (2012: 18-19) also take the view that a technical committee would fail because the fact that Google changes its algorithm 500 times a year would render the committee's tasks unmanageable; the committee would find it difficult to both understand and explain to the competent authorities almost twice on a daily basis why Google has introduced changes to its algorithm and whether such changes give rise to competition concerns. Furthermore, they argue that the setting up of such a committee would encourage litigation. This risk is rather plausible and could have the same negative implications as the duty to perform algorithmic updates in accordance with pre-established "objective" parameters: The mere existence of a body that decides on the legitimacy of Google's algorithmic modifications may well shift the attention of both Google and its competitors from innovating to justifying these modifications and arguing against them respectively. These factors would undoubtedly undermine the effectiveness of a committee entrusted with assessing the compatibility of the **mechanical** modifications of the algorithm with Article 102 TFEU.

What about **human** manipulation though? Should mechanical changes be distinguished from manual ones for antitrust purposes? As I explained above, the axis around which manual changes are performed may not be the improvement of the search experience, but the reduction of the visibility of other websites and ultimately their exclusion from the market. In this case,

the distinction between mechanical and human modifications is very relevant to competition law and therefore a matter of interest to antitrust authorities. To address the relevant concerns, the establishment of a committee whose task would be to check whether Google performs manual tweaking and to report these cases to the Commission would seem appropriate. This solution, which was applied by the U.S. authorities in the Microsoft case (Microsoft agreed *inter alia* to the establishment of a committee whose mission would be to secure interoperability between competitors' web servers and Windows),[85] does not have the shortcomings that were identified above because in this case the committee would not need to make contestable decisions as to the relevance of the search results: Checking whether manual manipulation has taken place does not depend on subjective parameters.

But, the question remains which measure may remedy the abusive **mechanical** manipulations of the algorithm. To this end, Hazan makes an interesting proposal. Drawing from the Microsoft experience, in which case the IT giant was found to engage in anticompetitive behavior by tying its web browser, Internet Explorer, to its operating system, Windows, he thoroughly discusses the obligation that the Department of Justice imposed upon Microsoft to publish all the Windows Application Programming Interfaces (APIs) used by its other software,[86] and argues that this solution could also apply to Google. Similar to the Microsoft remedy, whose purpose was to secure that all programs could interoperate with Windows the same way that Microsoft products could, Hazan argues that a disclosure of Google's APIs would enable competing undertakings to develop applications that would integrate them into a Google general search.[87] He illustrates this point through the following example:

> "Today, when a user searches for the name of a nearby restaurant, a Google Map might appear among the search results. With an open interface, Google's advanced search algorithm would still determine when an embedded map is appropriate, but the map would not necessarily be Google's. For instance, MapQuest could develop

85 See United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001). For an overview see: http://www.justice.gov/atr/cases/ms_index.htm.

86 Stipulation, U.S. v. Microsoft, Civil Action No. 98-1233 (CKK) (Nov. 6, 2001), available at http://www.justice.gov/atr/cases/f9400/9495.htm.

87 Hazan, 2012: 24-32.

> a Google application that would display a MapQuest map on the Google search results page in place of the Google map. Google would not be required to display the MapQuest map on its own, but a user would be able to select Map Quest as a preferred provider of sorts in their Google accounts settings. For that user, any search that would ordinarily yield an embedded Google map would produce an embedded MapQuest map instead. This would ensure that, for Google users who prefer MapQuest maps, they are not driven to switch to Google Maps instead merely because in the long run it requires fewer clicks from a search page".[88]

This solution addresses the concerns that were expressed above in the discussion of whether Google should be obliged to display its search results in a non-discriminatory fashion in that the remedy is not dependent upon questionable criteria that would compromise both the fairness that a decision condemning Google must reflect and the legal certainty that both Google and its competitors need in order to implement their business plans. Moreover, instead of either permitting Google to engage in deceptive bias or benefiting specific competitors that complain about their position in the list of search results, this remedy would advance competition on the merits, as it would stimulate search engines to innovate. To do so, Google could be asked to publish only its external APIs, i.e. the ones that enable it to communicate with other programs, and not the internal ones, i.e. the APIs that are used by the general platform itself.[89] Following this direction, the suggested solution would not be as intrusive as the disclosure of algorithmic updates and would therefore comply with the proportionality requirement that the Commission needs to fulfill when deciding which remedy can undo the harm caused to competition.

CONCLUSIONS

This paper discussed Google's alleged abuse of dominance in general online search. It focused on the practice of downgrading competitors' websites in organic results. The complaints that prompted the Commission's investigation (and the ones that followed) raise many complex questions with respect to how to ensure that competition in the online search and neighboring markets is not distorted (e.g. scraping, portability of online advertising campaign data to

88 Ibid.

89 Ibid.

competing online advertising platforms, etc.) that will undoubtedly confront the Commission and other antitrust authorities in the years to come.

The practice of downgrading is particularly interesting for antitrust purposes because neither competitors nor users pay to access Google's general search platform. The article reflected on whether this type of unilateral conducted may be regarded as an abuse for the purposes of Article 102 TFEU and, based on a more flexible interpretation of EU competition law, argued that previous case law has set the basis for Google's behavior to be regarded as abusive. Irrespective of whether the Commission decides to stretch established criteria or formulate new (in this or any other case with a similar factual background), manipulating the algorithm may generate exclusionary effects. These are particularly harmful to consumers not because a Google monopoly may necessarily result in search results being offered for a fee, but because Google will be in a position to impair the fair and free flow of content that is available online thereby depriving users of making informed decisions.

At the time of writing (more than three years after the Commission opened its formal investigation), no settlement has been reached. It goes without saying that this situation seriously undermines the effectiveness of the procedure seeking to restore competition without initiating lengthy proceedings. The allegations against Google undoubtedly involve labyrinthine issues that cannot be resolved overnight. But, addressing such issues is of utmost importance in new economy markets. As the Court ruled in *TeliaSonera*, "***[p]articularly in a rapidly growing market, Article 102 TFEU requires action as quickly as possible***, to prevent the formation and consolidation in that market of a competitive structure distorted by the abusive strategy of an undertaking which has a dominant position on that market or on a closely linked neighboring market, ***in other words it requires action before the anti-competitive effects are realized***" [emphasis added].[90]

90 Case C-52/09 Konkurrensverket v. TeliaSonera Sverige AB, para. 108.

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