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Search neutrality as a regulation principle for Internet search engines

A multidisciplinary approach

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engines**

A multidisciplinary approach

"To exist is to be indexed by a search engine"

(L. Introna & H. Nissenbaum)

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Table of contents

Introduction	6
1. Background and research question.....	6
2. Structure	7
3. Research approach and method.....	8
Chapter 1. Internet search engines: general overview.....	9
1. Internet search engines	9
1.1. Definition	9
1.2. Distinction between horizontal and vertical search	10
2. Functioning of search engines	10
2.1. Crawling and indexing	10
2.2. Algorithms and ranking	11
2.3. The user interface design of search engines.....	11
3. Evolution of search engines: from Ten blue links to Universal search.....	13
4. The functional and societal role of search engines	15
4.1. Functional role	15
4.1.1. Informational search	15
4.1.2. Navigational search	15
4.1.3. Transactional search	16
4.2. Societal role of search engines.....	16
5. Market structure of Internet search engines: a microeconomic analysis.....	17
5.1. A three-sided market.....	18
5.2. Network effects	19
5.3. Innovation driven industries and fast moving markets	20
5.4. Economies of scale	21
5.5. Highly concentrated markets and high fixed costs	21
5.6. Switching costs and lock-in	21
6. Search engines business models.....	23
6.1. Contextual advertising	23
6.2. Current market leaders' business models	24
6.2.1. Google	24

6.2.2. Bing and Yahoo!.....	25
6.3. Search engines market shares in the US and the EEA.....	26
7. Conclusion.....	28
Chapter 2. Search neutrality and competition law: the Google antitrust investigation.....	29
1. Antitrust as the starting point of the search neutrality debate	29
1.1. The European Commission investigation saga	29
1.1.1. Google’s business practices	29
1.1.2. The stakeholders’ claims	30
1.1.3. Google’s commitments.....	31
1.2. The Federal Trade Commission investigation	35
2. Competition law and search neutrality	37
2.1. The concepts of search bias and search neutrality	37
2.2. Search bias as an abuse under article 102 TFEU	38
2.2.1. Relevant market.....	38
2.2.2. Dominance	39
2.2.3. Abuse	40
2.3. Competition law is not sufficient to guarantee search neutrality.....	42
2.3.1. All search engines are biased.....	43
2.3.2. Narrow interpretation of the notion of search bias	44
3. Conclusion.....	45
Chapter 3. Search neutrality and net neutrality: a single principle?.....	47
1. An introduction to net neutrality	47
1.1. Concept of net neutrality.....	47
1.2. Net neutrality debate in context	48
1.3. Legal framework	49
1.3.1. United States.....	49
1.3.2. European Union	52
1.3.2.1. Current legal framework	52
1.3.2.2. The Connected Continent proposal.....	54
2. Are European net neutrality principles applicable to search engines?.....	55
2.1. Search engines and the Telecoms Package	55

2.1.1.	Are search engines electronic communication services?	55
2.1.2.	Are search engines associated facilities?	56
2.2.	Conclusion	57
3.	Search neutrality and net neutrality: a comparative approach	57
3.1.	Search engines and net neutrality.....	58
3.2.	Information gatekeepers.....	59
3.3.	Traffic managers	59
3.4.	Transparency is problematic	60
3.5.	Divergences.....	60
4.	Applying net neutrality principles to search engines	61
4.1.	Transparency	61
4.2.	No-blocking	64
4.3.	Non-discrimination and reasonable management	65
5.	Implementation of search neutrality principles	66
6.	Conclusion: a more global approach of search neutrality	67
Chapter 4:	Search neutrality, freedom of expression and media pluralism	69
1.	Search neutrality and freedom of expression	69
1.1.	Are search engines editors?.....	69
1.2.	The protection of search results under the right to freedom of expression and the implication for search neutrality regulations	71
1.2.1.	The American approach.....	71
1.2.1.1.	Case laws	71
1.2.1.2.	Implications for search neutrality and the Google's paradox	73
1.2.2.	The European approach	74
1.2.2.1.	The ECHR and the EU Charter.....	74
1.2.2.2.	ECtHR and national case law.....	76
1.2.2.3.	Implications for search neutrality	78
2.	Search neutrality and media pluralism	79
2.1.	The concept of media pluralism.....	79
2.2.	Interrelationship between freedom of expression, freedom of information and pluralism of the media	80

2.3.	Interrelationship between search neutrality and media pluralism.....	80
2.4.	Search neutrality under the light of media pluralism.....	82
2.4.1.	The Council of Europe	82
2.4.2.	The European Commission	85
2.4.3.	The European Parliament	87
3.	Conclusion.....	89
	General conclusion	91
	Bibliography.....	96

Introduction

1. Background and research question

Almost four years have now passed since the European Commission started to investigate Google's behaviour for abuse of dominant position in the Internet search market. During the investigation Google was accused of favourably ranking its own vertical search services to the detriment of its rivals. Competitors and other stakeholders argued that Google should be regulated through a "search neutrality principle". Similar claims were expressed during the US Federal Trade Commission investigation relating to the same abusive conduct of Google.

Search neutrality should be understood as the remedy to the conduct that involves any manipulation or shaping of search results. This conduct is also commonly known as "search bias". In this work, search neutrality should be understood in its broadest sense. It is the idea that search results should be free of political, financial or social pressures and that their ranking is determined by relevance, not by the interests or the opinions of the search engines' owners.

The importance attributed to search neutrality and search bias in recent years is closely linked to the role that search engines play in our information society. Indeed, search engines are currently the "gatekeepers" of considerable amounts of information scattered over the World Wide Web. Many users consider search engines to be the most important intermediaries in their quest for information. Users also believe that search engines are reliable without realising that they have the power to hide and to show democratically sensitive information.

Search neutrality seems to be the next major chapter in the fight for overall net neutrality¹ and this thesis researches the challenges that emerge when considering developing regulation aimed to ensure the neutrality of search results. The central research question may be stated as follows:

Are the current legal principles capable of ensuring search neutrality and if not, how search engines should be regulated in order to maximise end-users welfare without compromising search engines efficiency and without hampering innovation?

¹ N. SHAVIN, "Are Google And Amazon The Next Threat To Net Neutrality?", *Forbes*, 2 July 2014, available at <http://www.forbes.com/sites/naomishavin/2014/07/02/are-google-and-amazon-the-next-threat-to-net-neutrality/>.

Indeed, this thesis first aims to examine under which existing legal rules, if any, a search engine could be required to select and rank its results in a “neutral” way. However, the scope of this work will be limited to the analysis of four categories of rules: antitrust, net neutrality, freedom of expression and media pluralism. This analysis attempts to provide a complete overview of search neutrality issues and it aims to illustrate how neutrality might be ensured through different legal approaches. Subsequently, this work assesses different principles that should regulate search engines and it explains how they need to be adapted in order to ensure that end-users are not negatively influenced by search results.

2. Structure

In order to achieve the above mentioned purposes, the first chapter explains what a search engine is, how it functions, how search models have evolved over time and what societal role they play in our information society. Market characteristics of search engines and their business models are also discussed.

After providing a detailed outline of Google antitrust investigations in Europe and in the US, the second chapter explains how the concepts of search bias and search neutrality are understood under the light of competition law. Then it focuses on the question whether search results manipulation could be considered as an abuse of dominant position. Finally, it demonstrates that competition rules are not an appropriate tool to ensure search neutrality.

After explaining the concept of net neutrality and the legal framework in the United States and the European Union, the third chapter reveals that the current (and future) European rules do not (and will not) apply to search engines. Then, a comparison is made between search engines and Internet services providers in order to establish how net neutrality principles should be adapted to search engines. The chapter finally explains which principles should regulate search engines in order ensure neutral results that will be profitable to end-users and that will not impair search engines’ effectiveness. The implementation of search neutrality principles is also briefly discussed.

The fourth chapter has two main objectives. The first is to determine whether search engines might be considered as editors and whether they might enjoy freedom of expression as regards their search results. The analysis of this question is necessary in order to assess the implications

for any potential regulation ensuring search engines neutrality. Several American and European cases that deal with the issue will be discussed. The second objective of the last chapter is to demonstrate the interrelationships between search neutrality, freedom of expression and media pluralism and to explain how the manipulation of search results may adversely affect media pluralism. In addition, the chapter will discuss and assess the legislative policies of three European institutions that might ensure search neutrality under the light of the fundamental rights to freedom of expression and media pluralism.

Finally, the conclusions that were reached in chapters one to four will be summarised in order to answer the central research question.

3. Research approach and method

The thesis follows a multidisciplinary approach. Indeed, while the legal analysis is placed at the centre of the work, technical, economic and social issues relating to search neutrality will also be discussed. The thesis also uses a comparative method by analysing European and American law, whenever it is relevant.

In answering the research question, a traditional method of analysing legal texts, legal writing and case law will be applied. The sources used for the thesis consist of primary legislation, case law, articles, books and electronic sources such as online newspapers and weblogs. It is worth noting that while the thesis focus on European law, many American legal writing will be used.

Chapter 1. Internet search engines: general overview

The aim of this chapter is to provide a general overview on the technical and market characteristics of search engines. Indeed, an interdisciplinary approach is necessary to understand the full implications of the possibility of regulating search engines through a neutrality principle.

The following sections explain what search engines are (section 1), how they work and how they are presented (section 2). Some explanations will also be provided on the evolution of search engines models (section 3), their societal role (section 4), economic characteristics (section 5) and business models (section 6).

1. Internet search engines

1.1. Definition

There is no precise legal definition of the notion “web search engine”. However, in the Directive on Electronic Commerce² web search engines are considered as a type of information society service, namely “information location tools” or “tools allowing for search, access and retrieval of data³”.

Search engines can be denoted as “services that help their users to find information on the Web⁴”. In other words, a web search engine is “a software system that is designed to search for information on the World Wide Web⁵”.

In this study, the word “search engine” should be understood as meaning “Internet search engine”. Indeed, a “search engine” can also be understood as a general class of programs that search documents for specified keywords and returns a list of the documents containing the keywords. The search takes place in a specific database (e.g. computer hard disc) and not on the World Wide Web.

² Dir. (EC) n°2000/31 of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market, *O.J.*, L 178 of 17 July 2000, p. 1-16, (hereinafter Directive on Electronic Commerce).

³ See Article 21.2 in connection with Recital 18 of the Directive on Electronic Commerce.

⁴ Article 29 Data Protection Party opinion n° 1/2008 on data protection issues related to search engines, WP 148, adopted on 4 April 2008. Available at http://ec.europa.eu/justice/policies/privacy/docs/wpdocs/2008/wp148_en.pdf.

⁵ http://en.wikipedia.org/wiki/Web_search_engine (accessed on 10 April 2014).

1.2. Distinction between horizontal and vertical search

Generally speaking, there are two kinds of search engines. Horizontal or general search engines have a general purpose and are all-encompassing (e.g. Google, Yahoo!, Bing, etc.).

By contrast, vertical search engines are specialised engines that focus on specific segments of online content and are aimed at “dealing with search requests for specific content rather than dealing with general search requests⁶” (e.g. Yelp, Trip Advisor, Google Maps, Bing News, etc.).

2. Functioning of search engines

Without going into too many technical details, the aim of this section is to explain in a clear and simplified manner how search engines function.

2.1. Crawling and indexing

Every search starts with the Web which is made up of over 60 trillion personal pages⁷. The search engine navigates through the Web by using a web crawler. A crawler or robot “reads, stores, and analyses Web content⁸”. It is a standardised automated process without any manual or human help. In practical terms, the web crawler starts to follow few web links and then goes to other links, from page to page.

After the crawling process, web pages are sorted by content and are stored in the search engine’s index. This is a task carried out by the indexer that enables a quick reply of the search inquiries⁹ and contains the information necessary to answer a query. Indeed, the indexer “extracts words and useful terms from a webpage and memorizes the URL or a document identifier pointing to the webpage¹⁰”. Obviously, search engines do not index all the data available on the Internet. Sometimes, they omit (knowingly or accidentally) some web pages entirely or partly¹¹.

⁶ S. VAN LOON, “The Power of Google: First Mover Advantage or Abuse of a Dominant Position”, in A. Lopez-Tarruella, *Google and the Law: Empirical Approaches to Legal Aspects of Knowledge-Economy Business Models*, Hague, Springer, 2012, p. 16.

⁷ <https://www.google.com/insidesearch/howsearchworks/thestory/> (accessed on 10 April 2014).

⁸ S. LIEBERAM-SCHMIDT, *Analyzing and Influencing Search Engine Results*, Heidelberg, Gabler Verlag, 2010, p. 14.

⁹ *Ibidem*, p. 14.

¹⁰ *Ibidem*, p. 33.

¹¹ E. GOLDMAN, “Search Engine Bias and the Demise of Search Engine Utopianism”, in A. Spink, M. Zimmer, *Web Search: Multidisciplinary Perspectives*, Berlin, Heidelberg, Springer, 2008, p. 123.

2.2. Algorithms and ranking

When a user submits a query, sophisticated programs and formulas - called algorithms - start looking for clues to better understand what the user really wants to find. For instance, most of the search engines identify and correct possible spelling errors or suggest other search terms. Based on the clues, the most relevant pages are chosen from the index. It is the most important part for this study: the ranking of the results.

For example, Google uses a set of signals to determine how trustworthy, reputable, or authoritative a source is. PageRank is one of these signals. It is one of Google's first algorithms, which looks at links between pages to determine their relevance¹². If a page is cited by many other pages, Google will consider it as having more importance or having a higher quality. This is comparable to an academic citation in which case the citation is seen as a vote for the academic paper¹³.

There are also many other factors helping search engines to rank web pages:

- How many times the page contains the keywords?
- Do the search terms appear in the title of the site or in the URL?
- Does the page include synonyms for the keyword?
- Is the website a quality website or a low quality website?
- The geographic location of the user

Google states to use more than 200 factors for the webpages ranking¹⁴.

Ranking web pages is of course at the centre of the search neutrality debate. This practice is also called “engine search bias”. This practice will be further discussed in Chapter 2.

2.3. The user interface design of search engines

The user interface is the layout of the search engine website offered to the user. The main task of the user interface is to help users “in the expression of their information needs, in the formulation

¹² <https://www.google.com/insidesearch/howsearchworks/thestory/> (visited on 10 April 2014).

¹³ S. LIEBERAM-SCHMIDT, *op. cit.*, 2008, p. 36.

¹⁴ *Ibidem*.

of their queries, in the understanding of their search results, and in keeping track of the progress of their information seeking efforts¹⁵”.

Web search engines typically display a list of ten results on a web page, starting with the most relevant results for the user and following in descending order with results which are probably less relevant. Each search result contains the name of the identified content, its location, and a short summary that shows how the content relates to the query¹⁶. In other words, it is the raking of the search results. Normally, search engines offer the possibility of refining the query by selecting different search options (languages, location, keywords, etc.).

The basic components of the search engine interface are the search box and the search engine result page (SERP). The search engine result page consists of a list of natural results (also called organic or algorithmic results) and a list of sponsored links which is placed on the right or at the top of the natural results.

Natural results can be denoted as the results that appear because of their relevance of search terms. This type of results is also known as “unpaid search results”.

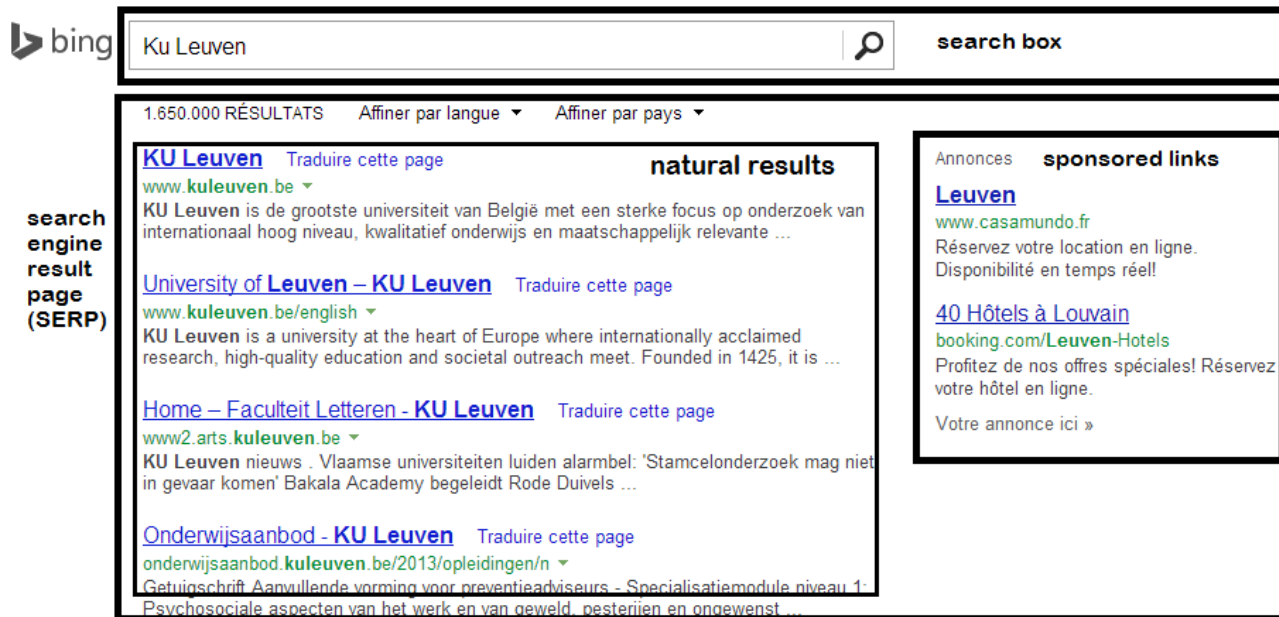
By contrast, sponsored links also known as paid search results or paid listings, have an advertisement function. Sponsored links are displayed on the result page because they “either fit to the query, or at least somebody paid for them because of any existing relationship to the query¹⁷”. More specific information about sponsored links will be provided in Section 5.1. and Section 6.1.

The following figure illustrates the user interface of Bing which is a standard SERP layout.

¹⁵ M. HEARST, *Search User Interfaces*, New York, Cambridge University Press, 2009, p. 1.

¹⁶ J. GRIMMELMAN, “The structure of search engine law”, *Iowa Law Review*, vol. 93, n°1, 2007, p. 9.

¹⁷ S. LIEBERAM-SCHMIDT, *op.cit.*, 2010, p. 16.



3. Evolution of search engines: from Ten blue links to Universal search

Until 2005, there were two different segments in the World Wide Web: websites and search engines¹⁸. Websites provided content and information, while search engines did not provide ultimate information but only a way to access information. The role of search engine was limited in generating a list of the best and most useful websites by providing “ten blue links”.

This paradigm changed in 2007 when Google introduced Universal Search, “which displays results not only from Web sites, but also, from images, videos, news, maps, and places¹⁹”. In other words, it is an integration of vertical search results in horizontal search results. Obviously, Yahoo!²⁰ and Bing have also followed this model.

Currently, search engines are providing ultimate information and not merely intermediate information i.e. links to websites. A user can find the answer of his query without leaving the search engine results page. Websites and search engines are no longer distinct spaces and the relationship between content and search is no longer vertical²¹. The leading companies in the

¹⁸ D. CRANE, "Search Neutrality as an Antitrust Principle." *Geo. Mason L. Rev.* vol. 19, n°. 5, 2012, p. 1200.

¹⁹ M. AMMORI, L. PELICAN, "Proposed Remedies for Search Bias: 'Search Neutrality' and Other Proposals in the Google Inquiry", *Journal of Internet Law*, 2012, p. 5. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2058159.

²⁰ C. CUMBROWSKI, "New Yahoo! (Universal) Search Launched", *Reve News*, Oct. 2, 2007.

²¹ D. CRANE, *op. cit.*, 2012, p. 1203.

online search saw this new model as an answer to consumer demand. In 2009, P. Raghavan, head of Yahoo Labs and Yahoo's search strategy, explained that "people don't really want to search [...], their objective is to quickly uncover the information they are looking for, not to scroll through a list of links to Web pages²²".

The following figure is an example of Google's Universal Search for the keywords "New York"²³. The search engine tries to figure out the user's intent and then presents various types of information, such as weather, upcoming events, images, videos, maps, etc. The user has the choice between different types of content and does not need to look further if, for instance, he only wants to get information on the weather in New York.

Google new york

Web Images Maps Actualités Vidéos Plus Outils de recherche

Environ 3.320.000.000 résultats (0,29 secondes)

New York — Wikipédia
fr.wikipedia.org/wiki/New_York
Entre 1785 et 1790, la ville de New York fut la capitale des États-Unis. Elle est la plus grande ville du pays depuis 1790, avant d'alimenter pendant quelques ...
Quartiers de New York - État de New York - Manhattan - Bronx

Images correspondant à new york Signaler des images inappropriées

Plus d'images pour new york

Google Images

This is New York City [fr] / nycgo.com
www.nycgo.com/fr
18 janv. 2012 - Bienvenue sur nycgo.com, le site d'informations officiel de la ville de New York. Les guides sur les 5 « boroughs » de New York s'adressent ...

The Official New York City Guide to NYC Attractions, Dining ...
www.nycgo.com/ Traduire cette page
Visit NYCgo for official NYC information on travel, hotels, deals and offers like Restaurant Week, and the best restaurants, shops, clubs and cultural events.

New York :: Guide de voyage New York :: Routard.com
www.routard.com/guide/code_dest/new_york.htm
New York. Ceux qui n'y ont jamais posé les pieds la connaissent déjà, par le

GooglePlus link

Google Maps link

New York General information
Ville dans l'État de New York
New York, officiellement City of New York, autrement connue sous les noms et abréviations de New York City ou NYC, est la plus grande ville des États-Unis et l'une des plus importantes du continent américain. Wikipédia

Météo : 14 °C, vent S à 16 km/h, 72 % d'humidité Weather
Heure locale : dimanche 09:23
Universités : Université de New York, Université Columbia, plus...

Événements à venir Upcoming events

18 avr. ven.	Jordan Brand Classic Barclays Center
18 avr.-27	New York International Auto Show 2014 Jacob K. Javits Convention Center
14 avr. lun.	Pesach Seder 2014 Jewish Russian Learning Center

²²J. NICCOLAI, "Yahoo Vows Death to the "10 Blue Links", *PCWORLD*, 19 May 2009. Available at <http://www.pcworld.com/businesscenter/article/165214/yahoovowsdeathtothe10bluelinks.html> (accessed on 13 April 2014).

²³ The results on the image are displayed in French because once the language is changed to English, the results page is different.

4. The functional and societal role of search engines

4.1. Functional role

Since information was first stored within computers, an established field of research called information retrieval has aimed to get information back out of computers²⁴. Several models have been developed by the informational retrieval literature in order to understand human interaction with search engines. A. Broder, former researcher for IBM, has established a classification of web search²⁵. There are three types of web search: informational, navigational and transactional.

4.1.1. Informational search

Informational use is the basic model developed in many standard information retrieval reference textbooks. In essence, every user driven by an information need submits his query formulated in a verbal form. The query is transferred to a system that choose documents from a collection (corpus) that match the best the user's search terms. Typically, the information need is associated with some task²⁶. The aim of such queries is to find information assumed to be available on the Web. The user needs to find information about a specific topic or an advice on a specific issue. The informational query can also include "the desire to locate something in the real world, or simply get a list of suggestions for further research²⁷". This sort of query generates different possible answers to the user's query.

In this study, informational search is very important because the user will try to obtain information about something he does not know; as it will be explained later, in this situation search bias may have an adverse effect for the user's right to receive information.

4.1.2. Navigational search

In information retrieval, this model of search is classified as "known item search". The purpose of such query is to find a particular website that the user has in mind, either because he visited it in the past or because he assumes that such a site exists²⁸. For this reason, "most queries consisting of names of companies, universities, or well-known organizations are considered navigational²⁹". In other words, there is only one possible answer to this type of queries.

²⁴ M. WILSON, *Search User Interface Design*, North Carolina, Chapel Hill, Morgan & Claypool, 2012, p. 2.

²⁵ A. BRODER, "A taxonomy of web search", *SIGIR Forum*, vol. 36, n°2, 2002, p. 3-10.

²⁶ *Ibidem*, p. 4.

²⁷ D. ROSE, D. LEVINSON, "Understanding User Goals in Web Search", in *Proceedings of the 13th International Conference on World Wide Web (WWW'04)*, New York, ACM, 2004, p. 14.

²⁸ A. BRODER, *op.cit.*, 2002, p. 5.

²⁹ D. ROSE, D. LEVINSON, *op. cit.*, 2004, p. 14.

4.1.3. Transactional search

In this type of search, the user aims to reach a destination where further interaction will happen. The main purpose of transactional search is not to find information but a resource. For instance, a resource query³⁰ aims at finding entertainment, downloading digital content (images, e-books, music), shopping a product, etc. The goal is to obtain something other than information. In most cases, the search engine directs the users to an e-commerce website (like Amazon, eBay, Apple Store, etc.). This kind of search is particularly relevant for media pluralism (*cf.* Chapter 4, Section 2).

4.2. Societal role of search engines

Search engines are considered to be the “gatekeepers” of cyberspace³¹ or “a public good³²” that is “capable of shaping public discourse itself³³”. In a World Wide Web with more than 60 trillion pages, search engines are an essential tool to obtain endless supply of news and political information³⁴. Indeed, the “Achilles heel of Internet is not lack of information but, rather, too much information³⁵”. Users are surrounded by data and information, most of which is of little use to them. According to some legal scholars, it is thanks to search engines that Internet is usable and not a chaotic wasteland³⁶.

Without doubt, search engines are important intermediaries that play a crucial role in helping users to locate relevant information and in leading them to the most appropriate content providers. With this gatekeeping role comes a tremendous power: in order to exist online, websites providers need to be indexed by search engines³⁷. Indeed, search engines like Google have the power to direct millions of users towards some content and not others, towards some sources and not others.

³⁰ Broader term used by D. ROSE, D. LEVINSON, *op. cit.*, p. 14-15.

³¹ A. DIAZ, “Through the Google Goggles: Sociopolitical Bias in Search Engine Design”, in A. Spink, M. Zimmer, *Web Search: Multidisciplinary Perspectives*, Berlin, Heidelberg, Springer, 2008, p. 11.

³² E. GOLDMAN, *op. cit.*, 2008, p. 127.

³³ J. GRIMMELMANN, “Some skepticism about search neutrality”, in B. Szoka and A. Marcus, *The Next Digital Decade: Essays of the Future of Internet*, Washington DC, TechFreedom, 2010, p. 436.

³⁴ A. DIAZ, *op. cit.*, 2008, p. 11.

³⁵ O. BRACHA, F. PASQUALE, “Federal Search Commission? Access, Fairness, and Accountability in the law of search”, *Cornell Law Review*, vol. 93, 2008, p. 1158.

³⁶ J. GRIMMELMANN, “The Google Dilemma”, *New York Law School Law Review*, Vol. 53, 2008, p. 941.

³⁷ *Ibidem*, p. 1163-1164.

Moreover, being indexed by search engines is not the sole condition for success. In order to attract a sufficiently important number of users, websites need to be placed on the first results page i.e. being highly ranked³⁸. Therefore, selecting and ranking of search results should be considered “crucial to how the Web contributes to political life in a large sense, both as a means of finding information and as a space for expression and deliberation³⁹”.

The increasing importance and pervasiveness of search engines providing access to knowledge accentuates the problem of neutrality. If we consider that search engines are similar to the traditional media, then we should expect that they disseminate a broad spectrum of information on any topic even when it concerns controversial issues. This is especially true if we believe in principles of democracy and the existence of an open Web⁴⁰. If search engines have the power to disseminate political views, as traditional media do, then their neutrality is indispensable in our democratic society. In this relation, the fourth chapter of this thesis examine more deeply this issue.

5. Market structure of Internet search engines: a microeconomic⁴¹ analysis

The online search industry can be considered as a part of the so called “New Economy”. Indeed, the terminology new economy describes three distinct though related industries⁴²: computer software, Internet-based businesses, communication services and equipment designed to support the first two markets. Doubtlessly, search engines operate in the “new economy”⁴³.

As noted by R. Posner, “new economies are characterized [...] by falling average costs [...] over a broad range of output, modest capital requirements relative to what is available for new enterprises from the modern capital market, very high rates of innovation, quick and frequent entry and exit, and economies of scale in consumption (also known as ‘network externalities’),

³⁸ Generally, empirical studies have demonstrated that the majority of search engines users never look further than the second page of results.

³⁹ J. VAN HOBOKEN, *Search engine freedom: on the implications of the right to freedom of expression for the legal governance of Web search engines*, Doctoral thesis, Amsterdam, University of Amsterdam, 2012, p. 52. Available at <http://dare.uva.nl/record/411972>.

⁴⁰ A. DIAZ, *op. cit.*, 2008, p. 11.

⁴¹ Microeconomics focuses on particular markets and studies the question of how resources are allocated based on individual participants’ decisions and interactions.

⁴² R. POSNER, *Antitrust Law*, 2nd ed., Chicago, University of Chicago Press, 2001, p. 245.

⁴³ A. DIKER VANBERG, “From Archie to Google - Search engine providers and emergent challenges in relation to EU competition law”, *European Journal for Law and Technology*, vol. 3, n° 1, 2012, p. 5.

the realization of which may require either monopoly or interfirm cooperation in standards setting.⁴⁴”

In the context of online search, most of the above characteristics are applicable⁴⁵ except for the modest capital requirement and the quick and frequent entry, which are not pertinent for the search industry. The most relevant market characteristics are explained below.

5.1. A three-sided market

A multi-sided market consists of a platform that brings together at least two distinct groups of users. The presence of users on one side creates a positive externality which makes the good sold on the other side more attractive, and vice versa⁴⁶.

Normally, in multi-sided markets there are two possible situations⁴⁷:

- Subsidising or giving the service for free in order to obtain an important number of users on one side of the market
- Investing in one side of the market to lower the costs of participating in the market for users on that side

The search industry is a three-sided market which includes end-users, content providers and advertisers. Some scholars present the online search market as two-sided⁴⁸ by focussing only on users and advertisers but it is more accurate to consider it as a three-sided market. Indeed, as explained by B. Rieder and G. Sire, “the basic exchange structure of Web search consists of users querying the engine to find information made available by content providers competing for attention; advertisers hoping to grow their visitor numbers or sales finance the system”. The result page is then the “visible outcome of a dynamic procedure of ‘query-results-ads matching’ (GRAM)”. GRAM is defined as “the ensemble of complex interactions between these actors

⁴⁴ R. POSNER, “Antitrust in the New Economy”, Olin Working Paper No. 106, *U Chicago Law & Economics*, 2000, p. 2. Available at SSRN: <http://dx.doi.org/10.2139/ssrn.249316>.

⁴⁵ A. DIKER VANBERG, *op. cit.*, 2012, p. 5.

⁴⁶ B. RIEDER, G. SIRE, “Conflicts of interest and incentives to bias: A microeconomic critique of Google’s tangled position on the Web”, *New Media Society*, vol. 16, n°2, 2014, p. 199.

⁴⁷ D. EVANS, “Some empirical aspects of multi-sided platform industries”, *Review of Network Economics*, vol. 2, n° 3, 2003, p. 196.

⁴⁸ See e.g. R. BORK, J. SIDAK, “What does the Chicago school teach about internet search and the antitrust treatment of Google?”, *Journal of Competition Law & Economics*, vol. 8, n° 4, 2012, p. 667; G. MANNE, “The Problem of Search Engines as Essential Facilities: An Economic & Legal Assessment” in B. Szoka and A. Marcus, *The Next Digital Decade: Essays of the Future of Internet*, Washington DC, TechFreedom, 2010 p. 425.

taking place every time a search is launched: a user enters a query and thereby initiates the production of an ordered list of ‘organic’ results (‘left side’) and, if advertisers are targeting the query or its semantic neighbourhood, an ordered list of ‘sponsored’ ads (‘right side’), which are served together on a single page”⁴⁹.

In other words, on one side end-users submit their queries to the search engine. On a second side, search engines index websites of content providers that want users to reach their site via web search. On a third side, advertisers are hoping to attract the end-users beyond the traffic received from the organic results.

Generally, search engines subsidise two of the three sides and charges the third. Indeed, Internet users submit their queries for free as well as content providers are charged neither for getting indexed nor for the traffic they receive from organic results. Conversely, advertisers pay in order to have their ads in the sponsored links of the results page and thereby finance the platform. Because the first two groups of users do not provide any form of payment, the search engine owner can reasonably expect they will get on board⁵⁰. As it was explained above, because users are present on the platform, advertisers have a strong incentive to be present as well.

In order to make sure that these two groups stay on board, Web search companies constantly improve and reinvent their indexing and search technologies. However, it would be wrong not to mention that search industries invest also in advertising technologies in order to attract more advertisers⁵¹.

5.2. Network effects

Multi-sided platforms often rely on indirect network effects. Economically speaking, network effects, also known as network externalities, can be observed when consumers of a product experience increased value when other consumers also use that product⁵². For example, the more people have a social media account, the more value it has as each account owner can communicate with more users.

⁴⁹ B. RIEDER, G. SIRE, *op. cit.*, 2014, p. 197-198.

⁵⁰ *Ibidem*, p. 200.

⁵¹ *Ibidem*, p. 200.

⁵² A. DIKER VANBERG, *op. cit.*, 2012, p. 6.

Markets with network effects are also often predisposed to convergence, as when an industry standard is developed and more and more people use it, there is a risk for the competitors to be left out⁵³.

Understandably, network effects may make it easier for a firm to achieve and keep a dominant position in the market⁵⁴. A relevant example of the role of network effects in establishing a strong presence on the Internet-based market is Google. As noted by P. Harbour and T. Koslov “Google’s initial success in the search market derived from a novel and unique search methodology that excelled at generating highly relevant search results. Google’s popularity has exploded, however, because the accuracy and relevance of Google search results actually improves as more and more searches are conducted. This improved performance, in turn, has attracted even more searchers to Google, which further improves the search results, and so on, in a continually self-reinforcing loop⁵⁵”.

5.3. Innovation driven industries and fast moving markets

New economy industries are characterised “by rapid technical or technology change, which leads to the alteration of the markets under consideration either through the creation of new markets or the transformation of the old ones⁵⁶”. Search engines operate in innovative markets and as in any technology industry, a certain level of innovation is required in order to be able to enter and survive in the market. New entrants need to demonstrate higher level of innovation than in the current industry standards, while existing search engines need constantly to invest in the improvement of their technology⁵⁷.

Search engines markets are fast moving compared to other non-Internet-based industries. For example, Yahoo was an earlier entrant and a market leader⁵⁸ but once the market has witnessed the entry of new search engines, including Google, Yahoo lost a significant part of its market share (cf. *infra*).

⁵³ *Ibidem*, p.6.

⁵⁴ P. HARBOUR, T. KOSLOV, “Section 2 in a Web 2.0 World”, *Antitrust Law Journal*, vol. 76, 2010, p. 778.

⁵⁵ *Ibidem*, p. 777-778.

⁵⁶ C. GRAHAM, “Introduction”, in C. Graham and F. Smith, *Competition, Regulation and the New Economy*, Oxford, Hart Publishing, 2004, p. 2.

⁵⁷ A. DIKER VANBERG, *op. cit.*, 2012, p. 5.

⁵⁸ R. TELANG, U. RAJAN, T. MUKHOPADHYAY, “The Market Structure for Internet Search Engines”, *Journal of Management Information Systems*, vol. 21, n° 2, 2004, p. 138.

5.4. Economies of scale

The web search industry benefit from increasing economies of scale, meaning that unit costs decrease as sales increase⁵⁹. Developing and operating a search engine like Google necessitates substantial capital investment as well as widespread research and development. Google spends 200 to 250 million US dollars per year only on IT equipment⁶⁰. This illustrates the importance of the investment and the economies of scale that a search engine enjoys, which may prevent competitors' market entries.

5.5. Highly concentrated markets and high fixed costs

As confirmed in the OECD report, "the search engine segment of the industry is highly concentrated: the top 5 companies account for over 90% of the market⁶¹" (cf. Section 6.3).

This can be explained by the fact that huge investment and significant market power are deemed necessary to compensate for the high fixed costs and high risks⁶².

Internet-based industries have high fixed costs - i.e. costs not dependent on the level of goods /services produced - and low marginal costs - i.e. costs of producing one more unit of a good/service. Indeed, developing innovative technologies requires large investment in research and development or in IT material (e.g. servers) but once the investment has been made search engines distribute their services at low marginal cost⁶³. For instance, the marginal cost for displaying one additional results page or one additional sponsored link is close to zero.

5.6. Switching costs and lock-in

Switching costs are denoted as the costs associated with switching from one supplier to another. A classic example of switching cost is the cost related to learning how to use the operating system of a new mobile phone after a brand switch⁶⁴. There are many types of switching costs: exit fees, emotional costs, equipment costs, etc. If switching costs are high, actual or potential

⁵⁹ OECD Report on The Economic and Social Role of Internet Intermediaries, DSTI/ICCP(2009)9/FINAL, 2010, p. 16. Available at <http://www.oecd.org/internet/ieconomy/44949023.pdf>.

⁶⁰ A. DIKER VANBERG, *op. cit.*, 2012, p. 5.

⁶¹ OECD Report, *op. cit.*, 2010, p. 28.

⁶² A. DIKER VANBERG, *op. cit.*, 2012, p. 5.

⁶³ OECD Report, *op. cit.*, 2010, p. 16.

⁶⁴ K. GUPTA, *Cost management – Measuring, Monitoring and Motivating Performance*, New Delhi, Global Indian Publications, 2009, p. 215.

competitors will encounter difficulties to obtain market share, even when they offer a better quality service. This practice is denoted as the “consumer lock-in”.

As regards online search, switching costs apply both to users and to advertisers as both are required for a search engine to be successful⁶⁵. It makes more sense to focus on the user side because if “users switched, it would not be hard to persuade advertisers to switch as well⁶⁶”.

At first sight, switching costs appear to be very low. A search engine user can switch from Google to Yahoo or to Bing by simply visiting yahoo.com or bing.com. This is the so called “one-click-away⁶⁷” theory.

However, as it was illustrated by the example of changing the brand of a mobile phone, there may be some switching costs if the user used to work with a particular search engine. Undeniably, an important number of users undertake a query with sophisticated refining strategies developed by the search engine they use. It seems likely “that refinement strategies are search engine specific” and “switching to a different engine is likely to involve some re-learning costs as a user adapts to the different search strategy required by the different search engine⁶⁸”.

Moreover, a number of search engines are now offering the possibility of personalising the search engine interface or even the search methods⁶⁹. This will of course increase the switching costs. As noted by A. Diker Vanberg, a well-known feature of multi-sided platform is the customer lock-in⁷⁰. This is possible by offering exclusivity agreements and bundling services. More and more search engines are offering various Internet tools with integrated search. For example, the Internet Google Chrome browser has a search integrated in the browser URL box. Again, the likelihood for switching search engine would be low if the user has, for instance, Google Chrome and a Gmail/Google Plus account. Obviously, the same user can still have access to his email account but due to habit and familiarity he will still use the search service offered by the same platform.

⁶⁵ R. POLLOCK, “Is Google the next Microsoft? Competition, welfare and regulation in Internet search”, Research Paper, University of Cambridge, 2009, p. 26. Available at <http://ssrn.com/abstract=1265521>

⁶⁶ *Ibidem*.

⁶⁷ J. HAZAN, “Stop Being Evil: A Proposal for Unbiased Google Search”, *Michigan Law Review*, vol. 111, n° 789, 2013, p. 813.

⁶⁸ R. POLLOCK, *op. cit.*, p. 27.

⁶⁹ See e.g. Google Custom Search <https://www.google.be/cse/?hl=en>.

⁷⁰ A. DIKER VANBERG, *op. cit.*, 2012, p. 7.

The implications of the above mentioned market characteristics will be discussed in the next chapters.

6. Search engines business models

In order to understand easily the legal issues surrounding search engines, it is also important to understand their business models.

6.1. Contextual advertising

Search engines provide information services like media services do. Indeed, they provide a completely free service to millions of customers every day just as news services do⁷¹. This would be an unsustainable business model if search engines did not provide advertising services. This is also true for media services like radio, television, newspapers, magazines, etc.

At first sight, this business model seems highly profitable because the only thing search engines do is providing sponsored links to customers using their search services and charging advertisers for the delivery of those links. All the web links they provide are already existing and free⁷² because obviously search engine do not pay for the use of the web links. Of course, it is not as simple as it seems because in order to show relevant results and advertising to its users, the search industry spends millions of dollars to develop sophisticated algorithms and search software. This model is also known as “Search Engine Marketing”.

There are three billing techniques to sell ads⁷³:

- Pay-per-impression: the advertiser pays a certain amount to the search engine each time the end-user sees the ad.
- Pay-per-click: the advertiser pays each time the end-user clicks on the ad. This is the most popular billing technique because it is a good compromise between accuracy and convenience.
- Pay-per-conversion, also known as pay-per-action/performance: the advertiser pays only when the user makes a purchase or takes some action that indicates serious interest in the

⁷¹ R. BLANCHARD, *The Digital Challenge for Libraries – Understanding the Culture and Technology of Total Information*, U.S., iUniverse, 2005, p. 57.

⁷² *Ibidem*, p. 58.

⁷³ J. GRIMMELMANN, “The structure of search engine law”, *Iowa Law Review*, vol. 93, n°1, 2007, p. 12.

advertiser's site. This model requires advertisers to provide significant information to the search engine.

Regardless of the model that is chosen, search engines have strong incentives to “build traffic”. In other words, they try to increase the number of visitors on their own website⁷⁴ in order to transfer later those visitors to the commercial sites listed on their results page.

6.2. Current market leaders' business models

This section is a short presentation of the business models adopted by Google, Yahoo and Bing.

6.2.1. Google

When Google was founded in 1998, S. Brin and L. Page were initially against the advertising business model⁷⁵. However Google started placing text ads next to the organic search results and in 2000, AdWords⁷⁶ was launched. AdWords operates with an auction based pay-per-click model which allows advertisers to select the keywords they want to be associated with. In addition, Quality Score concept was introduced by Google in order to determine “the relevance of the keyword to the ads in its ad group based on historical click through rates on ads⁷⁷”. In practical terms, Quality Score decides whether an ad is to be shown on the results page and the ranking of it. When several advertisers are using the same keywords, the sites owners with lower Quality Score have to pay a higher price to rank at the same place than web sites with high Quality Score⁷⁸.

⁷⁴ R. BLANCHARD, *op.cit.*, 2005, p. 58.

⁷⁵ A. DIKER VANBERG, *op. cit.*, 2012, p. 4.

⁷⁶ See <http://www.google.com/about/company/history/> (accessed on 17 April 2014).

⁷⁷ A. DIKER VANBERG, *op. cit.*, 2012, p. 4.

⁷⁸ European Commission Press Release, “Antitrust Commission probes allegations of antitrust violations by Google”, IP/10/1624, 30 November 2010. Available at http://europa.eu/rapid/press-release_IP-10-1624_en.htm?locale=en.

The table below⁷⁹ shows Google revenues for the last 2 years and the first quarter of 2014.

Revenues	Full Year		2014 (unaudited)
	2012	2013	Q1
Google Websites	\$31,221	\$37,422	\$10,469
<i>Y/Y Growth Rate</i>	19%	20%	21%
<i>Q/Q Growth Rate</i>	NA	NA	-1%
Google Network Members' Websites	\$12,465	\$13,125	\$3,397
<i>Y/Y Growth Rate</i>	20%	5%	4%
<i>Q/Q Growth Rate</i>	NA	NA	-4%
Total Advertising Revenues	\$43,686	\$50,547	\$13,866
<i>Y/Y Growth Rate</i>	20%	16%	17%
<i>Q/Q Growth Rate</i>	NA	NA	-1%
Other Revenues	\$2,354	\$4,972	\$1,554
<i>Y/Y Growth Rate</i>	71%	111%	48%
<i>Q/Q Growth Rate</i>	NA	NA	-6%
Total Revenues	\$46,039	\$55,519	\$15,420
<i>Y/Y Growth Rate</i>	21%	21%	19%
<i>Q/Q Growth Rate</i>	NA	NA	-2%
As % of Revenues			
<i>Google Websites</i>	68%	67%	68%
<i>Google Network Members' Websites</i>	27%	24%	22%
<i>Other Revenues</i>	5%	9%	10%

Obviously, Google's main revenues are generated by advertising. Indeed, in 2013 Google's total revenue is USD\$ 55, 519 billion of which total advertising revenue was USD\$ 50,547.

As mentioned above, Google diversified its services to strengthen its position in the search engine market. The list of Google's products includes⁸⁰, inter alia, Gmail, the web browser Google Chrome, a digital database of books known as Google Books, the mobile operating system Android and specialised search services like Google News, Google Maps and Street View.

6.2.2. Bing and Yahoo!

Microsoft is still a prominent player as an operating system for personal computers but it took a relatively long time to see how profitable the search business is. Indeed, Microsoft launched MSN Search in 1998 but they did not develop their own search technology until 2004⁸¹. In 2009 the Bill Gates' company decided to launch Bing replacing Live Search. The most important

⁷⁹ Available at <http://investor.google.com/financial/tables.html> (accessed on 17 April 2014).

⁸⁰ For the full list and description of products see <https://www.google.be/intl/en/about/products/> (accessed on 17 April 2014).

⁸¹ A. DIKER VANBERG, *op. cit.*, 2012, p. 4.

change in Bing was the organisation of search results into categories⁸² (images, videos, biography, facts, quotes, speeches, issues, etc.). In order to succeed Microsoft decided to join forces with Yahoo the same year. The two companies made a 10 year deal, in which Yahoo will have the opportunity to use Bing's technology, meaning that users will have the same search results from Yahoo as from Bing. In exchange, Microsoft receives 12% of search related revenues⁸³. The deal was cleared by the European Commission and accepted by U.S. Department of Justice. Yahoo was founded in 1994 by D. Filo and J. Yang and dominated the search market, as it was an early entrant⁸⁴.

The business model used by Yahoo and Bing is also based on a pay-per-click model⁸⁵ and it is managed by the Microsoft AdCenter⁸⁶. Needless to say, Yahoo has also developed some online services and tools⁸⁷ such as Yahoo Mail, Flickr - a website and a smartphone application letting people to share pictures and videos, Yahoo Weather, Yahoo Finance, specialised search services, etc.

As regards Bing, they offer a service called Bing Places which lists local business for free⁸⁸ and the "classic" vertical search services (news, images, videos and maps).

6.3. Search engines market shares in the US and the EEA

According to ComScore⁸⁹, Google's sites led the U.S. search market in March 2014 with 67.5%, followed by Microsoft's sites with 18.6% and Yahoo's sites with 10.1%. Ask Network accounted for 2.5% of explicit core searches, followed by AOL with 1.3%.

⁸² D. SULLIVAN, "Meet Bing, Microsoft's New Search Engine", 28 May 2009. Available at <http://searchengineland.com/meet-bing-microsofts-new-searchengine-20093>.

⁸³ European Commission Decision Case n° COMP/M.5727, *Microsoft/Yahoo! Search Business*, 18 February 2010.

⁸⁴ R. TELANG, U. RAJAN, T. MUKHOPADHYAY, *op. cit.*, 2004, p. 138.

⁸⁵ See <http://advertise.bingads.microsoft.com/en-us/sign-up#tab=costs> (accessed on 17 April 2013).

⁸⁶ See <http://advertising.microsoft.com/en-us/search-advertising-solution> (accessed on 17 April 2013).

⁸⁷ For the full list see <https://info.yahoo.com/privacy/us/yahoo/products.html> (accessed on 17 April 2013).

⁸⁸ See http://www.microsoftbusinesshub.com/products/bing_products (accessed on 17 April 2013).

⁸⁹ http://www.comscore.com/Insights/Press_Releases/2014/4/comScore_Releases_March_2014_U.S._Search_Engine_Rankings.

comScore Explicit Core Search Share Report*			
March 2014 vs. February 2014			
Total U.S. – Home & Work Locations			
Source: comScore qSearch			
Core Search Entity	Explicit Core Search Share (%)		
	Feb-14	Mar-14	Point Change
Total Explicit Core Search	100.0%	100.0%	N/A
Google Sites	67.5%	67.5%	0.0
Microsoft Sites	18.4%	18.6%	0.2
Yahoo Sites	10.3%	10.1%	-0.2
Ask Network	2.4%	2.5%	0.1
AOL, Inc.	1.3%	1.3%	0.0

***Explicit Core Search" excludes contextually driven searches that do not reflect specific user intent to interact with the search results.*

However, mobile searches are not included in the above statistics and this may significantly change the landscape. Indeed, it is assumed that Google has close to 90% share in the mobile search industry⁹⁰. As projected by analyst firm BIA/Kelsey, “by 2015 there will be more local searches coming from smartphones than PC’s in the U.S.”⁹¹. Local search has to be understood as geographically constrained searches.

As regards Europe, the European Commission concluded in 2013 that Google has a market share of over 90% in the European Economic Area (EEA)⁹². This market share only takes into account the horizontal search service.

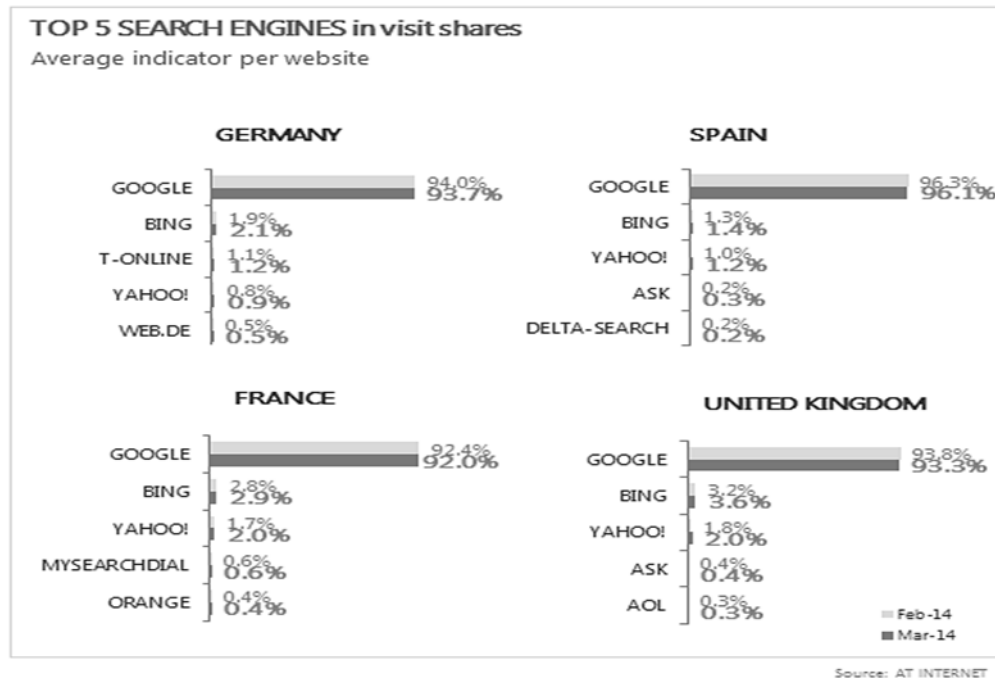
According to a recent study conducted by At Internet⁹³, Google is dominant in Germany, Spain, France and United Kingdom. This clearly confirms the Commission statement but again mobile searches are not taken into consideration. The following figure shows the top 5 search engines.

⁹⁰ TREFIS TEAM, “Google’s Mobile Division To Fuel Revenue Growth In 2014 And Beyond”, *Forbes*, 8 April 2014. Available at <http://www.forbes.com/sites/greatspeculations/2014/04/08/googles-mobile-division-to-fuel-revenue-growth-in-2014-and-beyond/>

⁹¹ G. STERLING, “Analyst: Mobile To Overtake PC For Local Search By 2015”, 20 April 2012. Available at <http://searchengineland.com/analyst-mobile-to-overtake-pc-for-local-search-by-2015-119148>

⁹² European Commission Press Release, “Antitrust: Commission seeks feedback on commitments offered by Google to address competition concerns”, IP/13/371, 25 April 2013. Available at http://europa.eu/rapid/press-release_IP-13-371_en.htm

⁹³ <http://www.atinternet.com/en/documents/search-engine-barometer-march-2014/>



7. Conclusion

The main goal of this chapter was to give a description of the functioning of search engines, their societal role and to explain the economic features of the search industry.

It is important to keep in mind that search engines use sophisticated algorithms in order to index and rank their results and that their search model evolved from then blue links to universal search.

The functional role of search engines was classified in three categories and emphasis was put on the informational and transactional type of search because they are relevant for search bias and media pluralism. It is also important to keep in mind that search engines are the gatekeepers of Internet and they are an essential tool for citizens to obtain endless supply of news and political information. Search engines are capable of shaping public discourse itself and this will be demonstrated in the next chapters.

The above mentioned market characteristics and business models of the web search industry will be particularly useful in the next chapter that deals with search neutrality and competition law.

Chapter 2. Search neutrality and competition law: the Google antitrust investigation

This chapter first aims to provide a detailed outline of Google antitrust investigations in Europe and in the US (Section 1). Then it focuses on the question whether search results manipulation could be considered as an abuse of dominant position and it explains how the concepts of search bias and search neutrality are understood under the light of competition law. It also demonstrates that competition rules are not appropriate to ensure search neutrality (Section 2).

1. Antitrust as the starting point of the search neutrality debate

Both at European and national level a number of complaints alleging abuse of dominant position have been filed against Google, focusing on areas of online search and advertising. In this work, only two important cases will be discussed and emphasis will be placed on search neutrality which has received considerable attention since an important number of Google's rivals' complaints were based on it.

1.1. The European Commission investigation saga

In the context of this investigation, the Commission has received 18 formal complaints against Google's business practices. Four of these practices have drawn the Commission's attention.

1.1.1. Google's business practices

The European Commission announced in November 2010 that it will “investigate whether Google has abused a dominant market position in online search by allegedly lowering the ranking of unpaid search results of competing services which are specialised in providing users with specific online content such as price comparisons (so-called vertical search services) and by according preferential placement to the results of its own vertical search services in order to shut out competing services⁹⁴”.

⁹⁴ European Commission Press Release, “Antitrust Commission probes allegations of antitrust violations by Google”, IP/10/1624, 30 November 2010. Available at http://europa.eu/rapid/press-release_IP-10-1624_en.htm?locale=en.

In March 2013, the Commission officially informed Google that there are four types of business practices conducted by Google which may violate EU competition rules prohibiting the abuse of a dominant position, namely article 102 of the Treaty on the Functioning of the European Union (TFEU)⁹⁵:

- “The favourable treatment, within Google’s web search results, of links to Google’s own specialised web search services as compared to links to competing specialised web search services (i.e. services allowing users to search for specific categories of information such as restaurants, hotels or products);
- The use by Google without consent of original content from third party web sites in its own specialised web search services;
- Agreements that oblige third party web sites (“publishers”) to obtain all or most of their online search advertisements from Google; and
- Contractual restrictions on the transferability of online search advertising campaigns to rival search advertising platforms and the management of such campaigns across Google's Adwords and rival search advertising platforms”.

The first practice is the only one that falls within the scope of this thesis. For this reason, the other three practices will not be considered further.

1.1.2. The stakeholders’ claims

In October 2013 an event was organised by MEPs where Joaquin Almunia has explained the status of the Google investigation. The stakeholders attending this event shared their views⁹⁶:

- According to the consumer association BEUC Google must use a *transparent and non-discriminatory search algorithm* and anything that would fall short of this, would be unacceptable.
- Foundem, a specialised search company, alleged that the concept of ‘*search neutrality*’ should be introduced.

⁹⁵ European Commission Press Release, “Antitrust: Commission seeks feedback on commitments offered by Google to address competition concerns”, IP/13/371, 25 April 2013. Available at http://europa.eu/rapid/press-release_IP-13-371_en.htm.

⁹⁶ M. LEDGER, “Google antitrust case discussed in Parliament”, *Cullen International*, 11 October 2013. Available at <http://www.cullen-international.com/product/documents/FLECEU20130004#ECNetNeutralityAndCompetition>.

- Hotmaps, a specialised provider of online maps, said that Google's strategy had been aggressive as it had pushed its Map content through its search dominance, pushing small map providers out of business.
- Thomas Hoppner, a lawyer representing the creative content industries, explained that Google has a *conflict of interest and is no longer an independent search engine* as it promotes its own services.

More details on the stakeholders positions can be found on the ICOMP web site⁹⁷ but the main views are expressed above. All these claims can be summarised as follows: Google should be regulated in order to provide “neutral search results”.

1.1.3. Google's commitments

In April 2013, Google gave commitments covering the European Economic Area (EEA) to address the preliminary competition concerns identified by the European Commission⁹⁸. As regards the specialised web search practice, Google offered for a period of 5 years to⁹⁹:

- “label promoted links to its own specialised search services so that users can distinguish them from natural web search results,
- clearly separate these promoted links from other web search results by clear graphical features (such as a frame), and
- display links to three rival specialised search services close to its own services, in a place that is clearly visible to users ”

These commitments were the subject of a market test in the same year¹⁰⁰. After having analysed the feedback from that market test, the Commission decided that “substantial improvements of the commitments were necessary to address its competition concerns adequately¹⁰¹”.

⁹⁷ Initiative for a Competitive Online Marketplace, <http://www.i-comp.org/>.

⁹⁸ See commitments in European Commission Decision Case n° COMP/C-3/39.740 *Foundem and others*, 3 April 2013.

⁹⁹ European Commission Press Release, “Antitrust: Commission seeks feedback on commitments offered by Google to address competition concerns”, IP/13/371, 25 April 2013. Available at http://europa.eu/rapid/press-release_IP-13-371_en.htm.

¹⁰⁰ See European Commission Communication pursuant to Article 27(4) of Council Regulation (EC) n° 1/2003 in Case AT.39740 *Google*, 2013/C 120/09, 26 April 2013.

In October 2013, Google submitted a revised proposal. The Commission requested a feedback on that second proposal from all parties who had replied to the market test and from all complainants and all other parties showing an interest in the case. Again, the Commission “took the view that more improvements of the commitments were necessary as regards the competition concerns related to specialised search¹⁰²”.

In February 2014, the Commission announced that Google has accepted “to guarantee that whenever it promotes its own specialised search services on its web page (e.g. for products, hotels, restaurants, etc.), the services of three rivals, selected through an objective method, will also be displayed in a way that is clearly visible to users and comparable to the way in which Google displays its own services¹⁰³”. For example, if the Google’s links have images, the rival links will have images as well, including on mobile devices. Furthermore, Google’s competitors will have the possibility of controlling their offerings presentation and hence their business model.

In cases where Google does not charge for insertion in its specialised search service, rivals will not be charged to participate in the space dedicated to rival links. The three displayed rivals will be chosen “from a pool of eligible specialised search competitors using Google's normal web search algorithm¹⁰⁴”. However, in instances where Google charges for inclusion in its specialised search service, the three rivals will be chosen “from a pool of eligible specialised search competitors based on a dedicated auction mechanism¹⁰⁵”.

According to the Commission, this solution will apply not only for existing specialised search services, but also to changes in the presentation of those services and for future services.

¹⁰¹ European Commission MEMO, “Antitrust: Commission obtains from Google comparable display of specialised search rivals- Frequently asked questions”, MEMO- 14/87, 5 February 2014. Available at http://europa.eu/rapid/press-release_MEMO-14-87_en.htm?locale=en.

¹⁰² *Ibidem*.

¹⁰³ European Commission Press Release, “Antitrust: Commission obtains from Google comparable display of specialised search rivals”, IP/14/116, 5 February 2014. Available at http://europa.eu/rapid/press-release_IP-14-116_en.htm.

¹⁰⁴ European Commission MEMO, *op. cit.*, 5 February 2014.

¹⁰⁵ *Ibidem*.

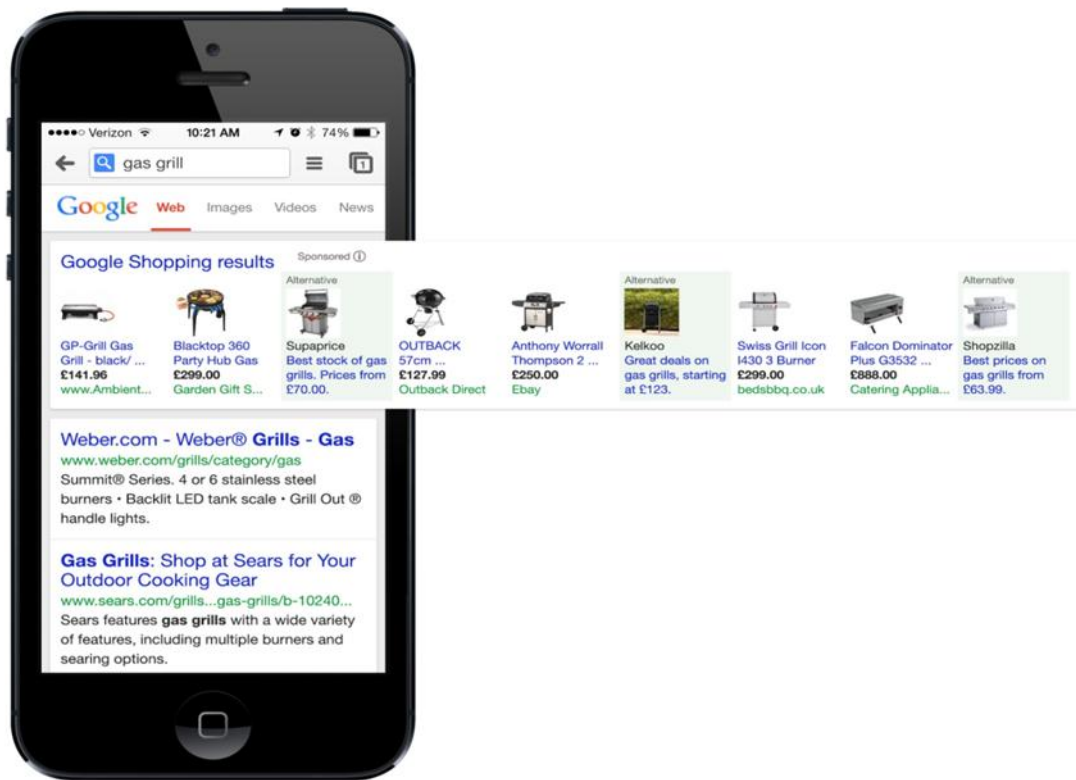
The following screenshots illustrate how Google results page is displayed today and how it would be displayed in the future¹⁰⁶.

The first screenshot shows the current Google search results for 'gas grill'. It features a search bar at the top with the Google logo, navigation tabs (Web, Shopping, Maps, Images, Videos, More, Search tools), and search results. The results include a sponsored section with five gas grill products (GP-Grill Gas, Falcon Dominator, Outback Omega 250, Blue Seal Cobra CS9, Burco) and several organic search results like 'Buy a Gas Grill 2014 - Gas Grill Ratings - Gas Grill Reviews' and 'Gasbarbecue nodig?'. The second screenshot shows a proposed future layout for the same search. It includes a search bar with a microphone icon, navigation tabs, and search results. The results are organized into sections: 'Sponsored' with 'Google Shopping results' and 'Alternatives' (Supaprice, Kelkoo, Shopzilla), and 'Ads' with 'Gas Grill at Amazon', 'Cheap Gas Grill', and 'gas grill'. The layout is more structured and visually distinct than the current one.

The second screenshot shows links to three rivals next to the three Google specialised results. These have pictures of the same size and quality as Google's own.

¹⁰⁶ *Ibidem*.

This solution is also applicable to mobiles as illustrated by the next image¹⁰⁷.



The size of the screen clearly constrains the number of results that can be shown. Nevertheless, next to Google's specialised search results, there will be one rival link displayed directly with a picture. There will be a number of additional Google and rival links if the user scrolls across the screen.

According to the Vice President of the European Commission, Joaquín Almunia, “this is a significant improvement compared to Google's previous proposal where rivals were only accessible after going through an intermediary screen and where even at that point, they did not have the possibility to display a picture¹⁰⁸”. He also stated that “this will give users a real choice between different options” and “this way, both Google and its rivals will be able and encouraged to innovate and improve their offerings”.

¹⁰⁷ *Ibidem*.

¹⁰⁸ European Commission Speech, “Statement on the Google investigation”, SPEECH/14/93, 5 February 2014. Available at http://europa.eu/rapid/press-release_SPEECH-14-93_en.htm.

This time, the Commission decided that it was not necessary to conduct a new market test because the relevant stakeholders' opinions are already well-known¹⁰⁹.

Obviously, the College of Commissioners must adopt a final decision making legally binding Google's commitments and this process will take a number of months.

The procedure pursued by the Commission is based on article 9 of the anti-trust Regulation¹¹⁰. This means that if the commitments are formally agreed, the Commission can impose a fine which could reach 10% of Google's annual turnover if it fails to comply with its commitments.

1.2.The Federal Trade Commission investigation

It is interesting to note that in the United States, a similar antitrust investigation was conducted by the Federal Trade Commission (FTC). In June 2011, Google admitted that it was under investigation¹¹¹.

The manipulation of search algorithms, most commonly known as search bias, was the key concern and priority of Google's competitors. They argued that Google manipulates its search results to penalise competitors or to privilege its own products and features. In light of these antitrust inquiries, Google's rivals have proposed more than a dozen remedies for agencies to pursue¹¹². Indeed, they had the opportunity to participate in a hearing on Google and antitrust in the US Senate and almost all of the proposed remedies targeted search bias.

More specifically, Google's competitors argued that "Universal Search favours Google's own "specialized search properties," such as Google Maps, Google Places and Google Products, over competing specialized search providers, such as MapQuest, Yelp, Foundem, and Nextag¹¹³".

For instance, Trip Advisor executive alleged that Google Places results show up higher on the screen than Trip Advisor's results because of Google's bias. According to Google's competitors,

¹⁰⁹ *Ibidem*.

¹¹⁰ Reg. (EC) n°1/2003 of Council of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, *O. J.*, L1 of 4 January 2003, p. 1-25.

¹¹¹ M. HELFT, "Google Confirms F.T.C. Antitrust Inquiry," *NY Times Bits Blog*, 24 June 2011. Available at http://bits.blogs.nytimes.com/2011/06/24/google-confirms-f-t-c-antitrust-inquiry/?_php=true&_type=blogs&_r=0.

¹¹² M. AMMORI, L. PELICAN, *op. cit.*, 2012, p. 1.

¹¹³ *Ibidem*, p. 5-6.

the current web search leader was tying together two distinct products - horizontal search and vertical search - hereby making it difficult for specialized search engines to attract users.

In addition to the search bias claims, Google's rivals suggested that:

- Google was free-riding off their content when Google points users to newspapers and to other sites willingly indexed by Google
- Google was deceiving users about its search-engine results
- Google was engaging in exclusionary exclusive deals and acquisitions by outbidding competitors

Following these complaints, the FTC scrutinised the introduction of Universal Search into Google's services in order to determine whether Google used that product to reduce or eliminate competition. The FTC looked also very closely at the possibility that Google has altered its search algorithms to lower certain vertical websites in an effort to reduce or eliminate any future competitive threat¹¹⁴.

However, the FTC closed the investigation in January 2013 and concluded that "the introduction of Universal Search, as well as additional changes made to Google's search algorithms – even those that may have had the effect of harming individual competitors – could be plausibly justified as innovations that improved Google's product and the experience of its users. It therefore has chosen to close the investigation¹¹⁵". The FTC did not imposed to Google any remedy concerning search bias.

As regards the other claims, the FTC obtained Google's commitment to remove restrictions on the use of its online search advertising platform (Ad Words) that may make it more difficult for advertisers to coordinate online advertising campaigns across multiple platforms. Google also agreed not to seek injunctions to block rivals from using patents essential to key technologies¹¹⁶.

¹¹⁴ FTC Press Release, "Google Agrees to Change Its Business Practices to Resolve FTC Competition Concerns In the Markets for Devices Like Smart Phones, Games and Tablets, and in Online Search", 3 January 2013. Available at <http://www.ftc.gov/news-events/press-releases/2013/01/google-agrees-change-its-business-practices-resolve-ftc>.

¹¹⁵ *Ibidem*.

¹¹⁶ *Ibidem*.

2. Competition law and search neutrality

As previously discussed, Google was the subject of investigations on both continents and attention was drawn to search bias. The neutrality issue was perceived by both competition authorities as a way for the dominant search engine to favour its own content and to eliminate competition. The aim of this section is to show how search neutrality is understood within the scope of competition law and why competition law is not sufficient to protect final users and therefore, is inappropriate for the implementation of a search neutrality principle.

2.1. The concepts of search bias and search neutrality

Search neutrality advocates employ the term “bias” to describe “the general conceptual idea of differentiation of organic search results based upon criteria other than ‘the merit’ ”. More generally, bias is employed to describe any conduct that involves the manipulation or shaping of search engine results¹¹⁷.

However, in the above mentioned cases antitrust authorities focus only on “own content bias”. In this case, bias is measured “as the extent to which a search engine’s ranking of its own content differs from how its rivals rank the same content¹¹⁸”. *Own content* should be understood as links to a search engine’s affiliated sites or vertical search services. Needless to say, own content bias refers only to organic results and does not include paid search results.

Search neutrality is usually proposed as the remedy to search bias¹¹⁹ and although it remains a malleable and largely undefined term, in competition law search neutrality is understood to mean that “a search engine should not prefer its own content in search results unless its own content is ‘objectively’ superior to competing content based on the use of a ‘neutral’ search algorithm¹²⁰”. In other words, a search neutrality principle would not allow Google to display Google Maps as a

¹¹⁷ J. WRIGHT, *Defining and Measuring Search Bias: Some Preliminary Evidence*, George Mason Law & Economics Research Paper, Portland, International Center for Law & Economics, November 2011, p. 10. Available at <http://www.laweconcenter.org/images/articles/definingmeasuring.pdf>.

¹¹⁸ M. LAO, “Neutral Search As A Basis for Antitrust Action?”, *Harvard Journal of Law & Technology Occasional Paper Series*, July 2013, p. 8. Available at <http://jolt.law.harvard.edu/antitrust/articles/Lao.pdf>.

¹¹⁹ G. MANNE, J. WRIGHT, *If Search Neutrality is the Answer, What’s the Question?*, White Paper Series, Portland, International Center for Law & Economics, 2011, p. 2. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1807951.

¹²⁰ M. LAO, *op. cit.*, 2013, p. 3.

first result of a localisation query unless it is determined, under an objective measure of relevance and quality, to be better than other maps results.

This interpretation of “search bias” is limited to the activity of favouring *own content*. Competition authorities understand “search bias” as a way for a search engine to favour its own content in search results to the detriment of its competitors¹²¹. Therefore, a search bias that is not designed to favour the search engine own content would normally not fall within the scope of competition law.

2.2. Search bias as an abuse under article 102 TFEU

Article 102 of the Treaty on the Functioning of the European Union (TFEU) prohibits any abuse of a dominant position by one or more undertakings within the common market.

The concept of dominance is very important because the prohibition of abuse only applies to the conduct of undertakings having a dominant position. In order to determine whether an undertaking is dominant within the scope of Article 102 TFEU, a two-step procedure must be followed. Firstly, the concept of dominance must always be applied in relation to the relevant market¹²² and secondly, a market power must be proved i.e. dominance.

2.2.1. Relevant market

According to the Commission, a relevant product market comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the products characteristics, their prices and their intended use¹²³. All the products considered by the consumer as substitutable constitute together the relevant product market, which is the starting point for the assessment of dominance.

The relevant market has also a geographical dimension. The relevant geographic market comprises the area in which the conditions of competition are sufficiently homogeneous and

¹²¹ G. MANNE, J. WRIGHT, *op. cit.*, 2011, p. 3.

¹²² S. VAN LOON, *op.cit.*, 2012, p. 11.

¹²³ Commission notice on the definition of the relevant market for the purposes of Community competition law, *O.J.*, C 372, 9 December 1997, § 7, p. 5-13.

which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas¹²⁴.

As regards the market for search results, it might be argued that there are two separate markets: general search services and vertical search services. Even if the search results that are generated through a vertical search service may also be found through a general search engine, it is likely that there is a specific consumer demand for vertical search engines¹²⁵. For example, Belgian users looking for houses for sale would rather use the vertical search engine Immoweb, than Google's general search service, since the latter does not offer to the user the possibility for refining its query with regard to the price, location, etc. As the General Court has held with respect to Microsoft, the existence of a separate consumer demand may be decisive in respect to the existence of a separate market¹²⁶.

In practical terms, with regard to the current antitrust investigation into Google, there are three relevant product markets: the market for online advertising, the market for internet search and the market for vertical search¹²⁷.

2.2.2. Dominance

A dominant position within the meaning of Article 102 TFEU has been defined by the European Court of Justice as a position of economic strength enjoyed by an undertaking, which enables it to prevent effective competition being maintained on a relevant market, by affording it the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of consumers¹²⁸. Such position of economic strength may appear from various factors such as high market shares, barriers to entry and economies of scale¹²⁹.

However, for New Economy markets, it is argued by both lawyers and economists that market definition and the assessment of market power should be dealt differently because competition no

¹²⁴ *Ibidem*, § 8.

¹²⁵ S. VAN LOON, *op.cit.*, 2012, p. 25.

¹²⁶ T-201/04, *Microsoft v. Commission*, 17 September 2007, *ECR*, 2007, p. II-3601, § 917.

¹²⁷ S. VAN LOON, *op.cit.*, 2012, p. 25.

¹²⁸ C-27/76, *United Brands Company and United Brands Continentaal BV v. Commission*, 14 February 1978, *ECR*, 1978, p. 209, § 65; C-85/76, *Hoffmann-La Roche & Co. v. Commission*, 23 May 1978, *ECR*, 1979, p. 1140, § 38.

¹²⁹ Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, *O.J.*, C 45/02, 24 February 2009, p. 7–20.

longer revolves around price, but around innovation¹³⁰. Rather than taking place on the market, the competition is for the market.

As noted previously, Google is considered having a dominant position in the European web search and advertising search markets due to its important market shares¹³¹. This can be explained by the fact that search engines operate in highly concentrated markets with network effects (cf. *supra*). Nevertheless, this may be debatable in respect to the markets for online advertising services and vertical search engines. Indeed, social networks such as Facebook and Twitter are starting to play an important role in the online advertising and are evolving into important portals of online information¹³².

2.2.3. Abuse

Now that it has been established that Google is dominant in the market for horizontal web search, it is necessary to consider how the lack of neutrality in the ranking of search results can constitute an abuse of dominant position.

Article 102 TFEU does not prohibit having a dominant position as such. However, a dominant undertaking has a “special responsibility” toward the competitive process¹³³ and it is not allowed to abuse its position by adopting conduct that may harm competition. Article 102 TFEU lists several practices that are considered as abusive but the list is non-exhaustive. Usually, there are two categories of abusive conduct¹³⁴:

- exploitative conduct, such as imposing unfair prices or trading conditions
- exclusionary conduct, such as contractual tying or refusal to deal, which is aimed at excluding competitors from the market

In order to prove an abuse, the European Commission has to establish that there is discrimination between Google’s websites and its competitors’ websites. Discrimination can be assumed if

¹³⁰ S. VAN LOON, *op.cit.*, 2012, p. 14.

¹³¹ European Commission MEMO, “Commission seeks feedback on commitments offered by Google to address competition concerns – questions and answers”, MEMO- 13/383, 25 April 2013. Available at http://europa.eu/rapid/press-release_MEMO-13-383_en.htm.

¹³² M. LAO, *op. cit.*, 2013, p. 8.

¹³³ C-322/81, *Nederlandsche Banden Industrie Michelin (Michelin I) v. Commission*, 9 November 1983, *ECR*, 1983, p. 3461, § 57.

¹³⁴ S. VAN LOON, *op.cit.*, 2012, p. 15.

Google excludes completely and without any justification its competitors' pages. Obviously this is not true: rivals are displayed on the search results page.

Therefore, another question is whether the downgrading of competitors' web pages in natural results constitutes an abusive behaviour under European competition law. In order to consider this practice as abusive, the Commission has to demonstrate that Google actually and deliberately downgrades its competitors' websites so that its own websites receive a higher ranking¹³⁵.

In other words, search bias can be considered as an abuse of dominant position only if it is proven that the dominant search engine is unfairly favouring its own services. However, Google may justify the downgrading of its rivals' websites by arguing that they do not obtain high search rankings because they copy most of their data from other websites¹³⁶. The search engine provider might also argue that a result list is a scarce resource¹³⁷. Indeed, the space of the result page is limited and some choices have to be made.

Moreover, given the secrecy surrounding algorithms¹³⁸ it is almost an impossible task for competition authorities to prove that a search engine downgrades its competitors' websites with the sole purpose of eliminating competition. Indeed, as noted by M. Lao the notion of "neutral or objective search standards is somewhat confounding because the process of search itself is inherently subjective¹³⁹". Search rankings represent search engine's judgment about the relative value and relevance of web content in response to certain search terms. As pointed out earlier, the search process is automated through the use of algorithms but "the evaluative criteria embodied in a search algorithm may well be viewed as 'objective' by one user because they generated the 'correct' search results for her, but as 'biased' by another user with different priorities or values who, therefore, found the results unhelpful¹⁴⁰". Even if access is granted to Google's algorithms, it will be difficult for a competition authority to establish with certainty that a search bias is an abusive behaviour.

¹³⁵ S. VAN LOON, *op.cit.*, 2012, p. 29; A. DIKER VANBERG, *op. cit.*, 2012, p. 9.

¹³⁶ S. VAN LOON, *op.cit.*, 2012, p. 30.

¹³⁷ W. SCHULZ, T. HELD, A. LAUDIEN, "Search Engines as Gatekeepers of Public Communication: Analysis of the German framework applicable to internet search engines including media law and antitrust law", *German Law Journal*, vol. 6, n° 10, 2005, p. 1424.

¹³⁸ A. DIKER VANBERG, *op. cit.*, 2012, p. 9.

¹³⁹ M. LAO, *op. cit.*, 2013, p. 8.

¹⁴⁰ *Ibidem*.

Search bias could be compared to a retailer favouring his own-brand products by giving them a much better display in the shop, even though there is a higher demand for its competitor's products¹⁴¹. At first sight, this seems to be a normal competitive behaviour, since the retailer makes investments and should therefore, be able to favour its own products. Nevertheless, the European Court of Justice's leading judgment, *Commercial Solvents*¹⁴², points in a different direction. According to the Court, a dominant undertaking that refuses to supply a competitor in a derivative market because it wishes to enter this market itself, is abusing its dominant position.

Applied to web search, this means that the behaviour of a dominant undertaking in the horizontal search market which is aimed at excluding competitors from an ancillary market - namely vertical search market - is considered to be abusive under Article 102 TFEU if the same undertaking wants to enter such market itself¹⁴³. Obviously, this situation is not entirely similar to Google's practice because it has not refused to display its competitors' services on its result page; Google has *just* downgraded their ranking.

Having regard to the decision of the FTC and the European Commission, the probability of considering search bias as an abuse is very low. Indeed, the FTC closed the investigation without taking any action on search bias¹⁴⁴ and the Commission seems to be satisfied with a solution which simply ensures that three of Google's competitors are displayed next to Google's search services.

2.3. Competition law is not sufficient to guarantee search neutrality

The purpose of this section is to demonstrate concisely that the logic of antitrust law is not sufficient to protect consumers against search bias and this statement can be justified by two arguments. Firstly, it does not make sense to impose a search neutrality principle only to dominant search engines. Secondly, the notion of search neutrality as understood by competition authorities is too narrow in order to deal with all the adverse effects deriving from search bias.

¹⁴¹ A. DIKER VANBERG, *op. cit.*, 2012, p. 9; S. VAN LOON, *op.cit.*, 2012, p. 30.

¹⁴² C-6/73 and C-7/73, *ICI and Commercial Solvents v. Commission*, 6 March 1974, *ECR*, 1974, § 23-29, p. 223.

¹⁴³ S. VAN LOON, *op.cit.*, 2012, p. 30.

¹⁴⁴ D. HYMAN, D. FRANKLYN, *Search Neutrality v. Search Bias: An Empirical Perspective on the Impact of Architecture and Labeling*, Law Research Paper, University of Illinois & University of San Francisco, 2013, p. 2. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2260942.

2.3.1. All search engines are biased

As demonstrated in the previous sections, in order to impose a search neutrality principle on undertakings, competition authorities need first to demonstrate the existence of a dominant position and then prove that search bias constitute an abuse. In practice this would mean that non-dominant undertakings are free to manipulate their search results as long as they do not have a sufficient market power. Indeed, competition authorities cannot impose any restrictions to their business practices as long as they do not hold a dominant position.

Even if a competition authority proves that Google's search bias constitutes an abuse and somehow forces Google to provide more "neutral results", other search companies such as Bing and Yahoo remain free to promote their own services at the detriment of their rivals.

In fact, Google's competitors already do that. As demonstrated by J. Wright, Google is not the only one that favours its own content. Yahoo's and Bing's own content appears more often on their own search page than on the first page of rivals' search results¹⁴⁵. Sometimes, Google's rivals are even more biased than Google itself. According to J. Wright, Bing "refers to Microsoft content in its search results far more frequently than its rivals reference the same Microsoft content" and it "frequently ranks Microsoft content highly even when rival engines do not refer to the same content at all in the first page of results¹⁴⁶". For instance, for the search query "email", Google ranks Microsoft Outlook first and its own Gmail second, while for the same query, Bing ranks Outlook first, Yahoo Mail second and Gmail third¹⁴⁷.

Furthermore, as highlighted above, New Economy markets such as web search are fast moving compared to other non-Internet-based industries. Today Google is the leader of online search but in few years it may lose all its market power as Yahoo did. This means that even if remedies are imposed on Google in order to provide neutral results, they may become rapidly useless and inefficient for the web search industry, especially when other market players are not regulated under the same remedies.

¹⁴⁵ J. WRIGHT, *op. cit.*, 2011, p. 17.

¹⁴⁶ J. WRIGHT, *op. cit.*, 2011, p. 27-28.

¹⁴⁷ This query was realised on Google.be and Bing.com.

2.3.2. Narrow interpretation of the notion of search bias

As explained above, in antitrust law the issue of search bias and search neutrality is understood as the search engine's treatment of its *own* content and this was demonstrated in both European and American investigations which focused only on Google's practice of favouring own content. However, there are other types of manipulation and shaping of search results that antitrust law cannot regulate even if those biases are conducted by a dominant search engine.

Let's imagine that a search engine instead of favouring its *own* content, favours *another* content which is less relevant for the user? This would arguably harm the user¹⁴⁸ because he will not be able to find rapidly the information he is looking for.

This is also true if the search engines hide controversial content. For instance, while anti-Semitic sites are easy to find on the American version of Google, in France and Germany those sites will not be shown in the results list¹⁴⁹. This also means that search engines give access to different type of content depending on the geographical location of their users.

The following example¹⁵⁰ illustrates this very well. For the query "jew" on the French and Belgian version of Google, the search results are not the same although those countries share a common border and to some extent, a common past. Indeed, the anti-Semitic site "www.jewwatch.com" is removed from Google.fr while it is displayed on the first page of results at Google.be. Now, to be fair to Google, at the end of the results page of Google.fr there is a disclaimer message:

*« For legal reasons, Google has removed one result on this page. For more information, please go to ChillingEffects.org »*¹⁵¹.

Even if this information suppression may be justified by the prohibition of hate speech, it shows that a search engine is capable of favouring or hiding content.

¹⁴⁸ J. GRIMMELMANN, *op. cit.*, 2007, p. 20.

¹⁴⁹ L. HINMAN, "Searching Ethics: The Role of Search Engines in the Construction and Distribution of Knowledge", in A. Spink, M. Zimmer, *Web Search: Multidisciplinary Perspectives*, Berlin, Heidelberg, Springer, 2008, p. 74.

¹⁵⁰ J. GRIMMELMANN, *op. cit.*, 2008, p. 948.

¹⁵¹ Translation of « En réponse à une demande légale adressée à Google, nous avons retiré 1 résultat(s) de cette page. Si vous souhaitez en savoir plus sur cette demande, vous pouvez consulter le site ChillingEffects.org. »

Another example that would be more difficult to defend is the request from the Chinese government to major search engines - including Google - to prevent users from finding information on the banned Falun Gong movement¹⁵², Dali Lama and the Tiananmen Square massacre. Here, the most worrying part is not that American companies comply with foreign political censorship but that they use hardware infrastructure which makes possible censorship to be easily achieved¹⁵³.

China seems to be an extreme case but this type of practice has already taken place in the United States. In 2004, for several months photos of prisoner abuse of Abu Ghraib were not showing up in Google images results and Google spokesperson were not able to provide any convincing explanation¹⁵⁴.

Even if Google is “not evil” and warns the user that some results have been hidden, there is currently no legal provision that might oblige the search engine to do so. In addition, there are number of cases where it seems obvious that no search engine will ever warn the user of the possible search biases that have influenced the search results.

It is unnecessary to recall that search engines revenues come from advertising and even if search engines claim that their organic results are “ad-free”, the contrary is difficult to prove due to the complexity of their algorithms. As asserted by Google’s founders themselves, we may expect that “advertising funded search engines will be inherently biased towards the advertisers and away from the needs of the consumers¹⁵⁵”. This is the issue of search bias aiming to promote “subtly” the search engine clients’ products. Here again, competition law cannot prevent this practice.

3. Conclusion

Competition law is clearly not an appropriate tool to deal with search bias although preventing search engines from favouring their own content to the detriment of their competitors may favour to some extent the neutrality of search results. The current solution accepted by the European Commission is not sufficient to reduce the power of search engines like Google to manipulate

¹⁵² J. GRIMMELMANN, *op. cit.*, 2007, p. 21.

¹⁵³ L. HINMAN, *op. cit.*, 2008, p. 74.

¹⁵⁴ *Ibidem*.

¹⁵⁵ S. BRIN, L. PAGE, “The Anatomy of a Large-Scale Hypertextual Web Search Engine”, cited by J. GRIMMELMANN, *op. cit.*, 2007, p. 21.

their results. Indeed, guaranteeing to promote competitors' specialised search services is not an adequate measure to ensure neutral results. Just because users have more alternatives does not mean that they have more neutral results. This is especially true, when in certain cases competitors have to pay in order to be placed next to Google's specialised services.

Even the most automated search engine is a result of human work and beyond every algorithm there is a programmer giving specific instructions to the computer¹⁵⁶. Those instructions can lead to the removal of information or to the disfavouring of some content without due cause.

There are many reasons for which search engines may manipulate or shape their results. As demonstrated in the above section, the issue of search neutrality is broader than the problem of own content bias and therefore, a wider legal tool is necessary to avoid the disadvantages of search bias that might deprive final users from accessing important information. For this reason, in the following chapter the possibility of considering search engines like traditional telecommunication conduits and their regulation under net neutrality principles will be discussed.

¹⁵⁶ J. GRIMMELMANN, "The Google Dilemma", *New York Law School Law Review*, vol. 53, 2008, p. 944.

Chapter 3. Search neutrality and net neutrality: a single principle?

Some scholars argue in favour of the extension of the principle of net neutrality to search engines¹⁵⁷. Therefore, this chapter first aims to answer the question whether net neutrality principles, as adopted in the European telecommunications directives, may also apply to search engines (Section 2). Before that, the notion of net neutrality will be explained (Section 1). Then, a comparison is made between search engines and Internet services providers (Section 3) in order to establish how net neutrality principles should be adapted to search engines (Section 4). The concrete implementation of search neutrality principles will also be briefly discussed (Section 5). Finally, it is concluded that search neutrality may be ensured by principles emanating from net neutrality (Section 6).

1. An introduction to net neutrality

1.1. Concept of net neutrality

According to T. Wu, the idea behind net neutrality is “that a maximally useful public information network aspires to treat all content, sites, and platforms equally. This allows the network to carry every form of information and support every kind of application¹⁵⁸”.

Seen in a broader way, net neutrality implies an *ex-ante* obligation of non-discrimination for network operators when granting access to Internet content providers¹⁵⁹. It is a principle ensuring that all types of content are transmitted on the network with the same service quality and that networks operators do not favour or prioritise some content at the expense of other content¹⁶⁰. In other words, net neutrality refers to “the potential problem of an Internet access provider (IAP) discriminating against certain kinds of applications and content, either by blocking them altogether or by degrading the quality of transmission¹⁶¹”. There are various reasons that may

¹⁵⁷ See M. LEDGER, *op. cit.*, 2013; N. SHAVIN, *op. cit.*, 2014; C. CASTRO, “La neutralité du Net ne suffit pas”, *INRIA*, 29 March 2013, available at <http://www.inria.fr/actualite/actualites-inria/la-neutralite-ne-suffit-pas>.

¹⁵⁸ T. WU, *Network neutrality FAQ*, 2011, available at http://timwu.org/network_neutrality.html, (accessed on 27 July 2014).

¹⁵⁹ P. VALCKE *et al.*, “Network neutrality: Legal Answers from an EU Perspective”, *RTDI*, n° 32, 2008, p. 324.

¹⁶⁰ M. PIRON, « La neutralité des réseaux et la garantie de la fourniture de services de médias audiovisuels », *RTDI*, n° 45, 2011, p. 71.

¹⁶¹ W. MAXWELL, N. CURIEN, “Net neutrality in Europe: An economic and legal analysis”, *Revue des droits de la concurrence*, n° 4, 2010, p. 44.

push an IAP to block or degrade certain kind of contents or applications. One reason may be the network protection against undue congestion or attacks. Other motivations may be the compliance with a court order to block access to illegal content or the favouring of the IAP's own content or services against competitors. A typical example is when a mobile operator blocks Voice over Internet Protocol¹⁶² (VoIP) application in order to protect its network and the quality of service provided to users, or to protect its own voice revenues.

1.2. Net neutrality debate in context

In order to understand the context in which net neutrality debate started it is important to understand the architecture of the Internet. The design of Internet is based on an “end-to-end principle” that recommends that “intelligence” in a network is located at the end of the network, that is to say the devices and applications connected to the network¹⁶³. Rather than build into the network a complex set of functionality, the end-to-end principle pushes complexity to the applications and devices that run on the network. In such design, the network is considered to be a “dumb pipe” because its function is to transfer data through the network, without having the ability to interfere with the dataflow¹⁶⁴. In general, the data is transmitted on a best-efforts basis, irrespective of what kind of data is transmitted i.e. the network is “neutral” towards the data passing through it. As stated by M. Lemley and L. Lessig, “one consequence of this design is a principle of non-discrimination among applications”. This means that “lower-level network layers should provide a broad range of resources that are not particular to or optimized for any single application — even if a more efficient design for at least some applications is thereby sacrificed¹⁶⁵”.

When data traffic confronts network operators with a demand for network capacity which exceeds the available network capacity, each data flow must be passed on a first-come-first-serve principle¹⁶⁶. This design is satisfactory for applications that are not time-sensitive such as email

¹⁶² VOIP is a transmission technology that allows voice telephone calls through the Internet.

¹⁶³ M. LEMLEY, L. LESSIG, “The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era”, *UCLA Law Review*, vol. 48, 2001; *Stanford Law and Economics Olin Working Paper*, No. 207, 2001, p. 6. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=247737.

¹⁶⁴ EU Study on Net Neutrality, *Legal analysis of a Single Market for the Information Society - New rules for a new age?*, European Commission's Information Society and Media Directorate-General, 2009. Available at http://ec.europa.eu/information_society/newsroom/cf/itemlongdetail.cfm?item_id=7022.

¹⁶⁵ M. LEMLEY, L. LESSIG, *op. cit.*, 2001, p. 6.

¹⁶⁶ P. VALCKE *et al.*, *op. cit.*, 2008, p. 325-326.

and web browsing but it is clearly problematic for applications such as VoIP, streaming video, etc. In order to avoid network congestion and the degradation of time-sensitive services, network operators may manipulate the network dataflow. This is possible thanks to the use of technologies relating to “traffic prioritisation”- also known as “traffic shaping” or “access-tiering” - which enable “network operators to control the flow of data over a network, giving the transfer of some data packets priority over others¹⁶⁷”.

It is at this stage that the problem of net neutrality arises: network operators are able to control data flows coming onto the networks and to distinguish types of traffic that they can handle differently. This goes obviously against the end-to-end principle. They have the possibility to block, degrade or prioritise the data transmission service for particular Internet content providers or certain types of data. According to net neutrality proponents, network operators might “stifle innovation and competition at the edge of the network, i.e. in the markets for Internet content, by determining what Internet content can be delivered or be delivered better¹⁶⁸”.

1.3. Legal framework

The net neutrality debate has its origins in the United States, and is closely connected with the market liberalisation of Internet access providers¹⁶⁹ that started in 2000. It is therefore interesting to briefly explain the existing net neutrality rules in the United States before exposing the European rules.

1.3.1. United States

The actual debate of net neutrality began with the *Madison River*¹⁷⁰ case where a small US telephone company blocked all VoIP communications transiting on its network in order to push its customers to use its own telephony services. The case was not brought to court but the company was sanctioned by the Federal Communication Commission (FCC). Shortly after this, the FCC adopted a network neutrality policy by issuing a non-binding statement laying on four

¹⁶⁷ EU Study, *op. cit.*, 2009, p. 4.

¹⁶⁸ P. VALCKE *et al.*, *op. cit.*, 2008, p. 326.

¹⁶⁹ O. BRAET, P. VALCKE *et al.*, *Étude portant sur la neutralité du réseau (Internet) et les mesures de gestion du trafic – Rapport final*, réf. 2012/S2/E9/NET_NEUTRALITY, Leuven, SPF Economie, P.M.E., Classes moyennes et Energie, 2013, p. 8. Available at http://economie.fgov.be/fr/modules/publications/analyses_etudes/etude_net_neutrality.jsp.

¹⁷⁰ See *Madison River Communications, L.L.C. and Affiliated Companies*, Order, File No. EB-05-IH-0110, 20 F.C.C.R. 4295 (Enforcement Bureau, 2005).

principles¹⁷¹. This policy was more an interpretation of the obligations of the Telecommunications Act¹⁷² of 1996 than a proper rule making. The four principles aimed at ensuring "that providers of telecommunications for Internet access or Internet Protocol-enabled services are operated in a neutral manner¹⁷³". According to the above mentioned statement, in order to encourage broadband deployment and promote open internet consumers are entitled to¹⁷⁴:

- access lawful Internet content of their choice;
- run applications and use services of their choice (subject to the needs of law enforcement);
- connect lawful devices of their choice that do not harm the network;
- benefit from competition among network, application, service and content providers;

In 2008, the FCC investigated Comcast – a network operator – that was blocking peer to peer exchanging. Comcast justified this practice on the ground that the Internet policy statement allowed reasonable traffic management but the FCC disagreed with this reasoning and ordered the operator to cease the blocking. This time, the case was brought before a federal court and Comcast won. Indeed, Comcast argued that the FCC was not competent in the field of net neutrality¹⁷⁵. In other words, the FCC had no ground to sanction infringement of net neutrality. This confirmed the Brand X decision where the US Supreme Court decided, already in 2005, that Internet through the cable and through ADSL have to be classified within the category “information service” and not “telecommunication service” as stated in the Telecommunications act of 1996.

The FCC is however competent in controlling mergers of electronic communications companies, and thus enabled to impose its regulation, in an indirect way, by obliging companies to integrate net neutrality obligations in their merger conditions¹⁷⁶.

¹⁷¹ O. BRAET, P. VALCKE *et al.*, *op. cit.*, 2013, p. 8.

¹⁷² Telecommunications Act of 1996, Pub. LA. No 104-104, 110 Stat. 56 (1996). Available at <http://www.gpo.gov/fdsys/pkg/PLAW-104publ104/pdf/PLAW-104publ104.pdf>.

¹⁷³ The text of the policy statement is available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-151A1.pdf.

¹⁷⁴ EU Study, *op. cit.*, 2009, p. 25.

¹⁷⁵ O. BRAET, P. VALCKE *et al.*, *op. cit.*, 2013, p. 8.

¹⁷⁶ *Ibidem*.

In December 2010, the FCC adopted an “Open Internet Order” aiming to promote net neutrality. The order contains four principles¹⁷⁷ that can be summarized as follows:

- Transparency: all Internet Service Providers (ISPs) must transparently disclose to their subscribers and users all relevant information as to the policies that govern their network
- No Blocking: no legal content may be blocked
- No Unreasonable Discrimination: ISPs may not act in a commercially unreasonable manner to harm the Internet, including favouring the traffic from an affiliated entity.
- Reasonable Network Management: in order to preserve an open, robust, and well-functioning Internet, broadband providers must have the flexibility to reasonably manage their networks. A network management practice is reasonable, if it is appropriate and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service.

All these principles are also applicable to mobile broadband Internet access providers.

This order was challenged in federal court by Verizon¹⁷⁸. The ISP claimed that the FCC’s order was an infringement of the right to free speech and also that the FCC exceeded its competences in establishing these rules. On January 14, 2014 the US Court of Appeals affirmed the Commission's competence to regulate broadband Internet access service and upheld the Commission's judgment that Internet openness encourages broadband investment. While the court upheld the transparency rule, it vacated the no-blocking and no-unreasonable discrimination rules¹⁷⁹.

In response to this ruling, the FCC launched on May 15, 2014 a rulemaking seeking public comment¹⁸⁰ on how best to protect and promote an open Internet. The Commission proposes to retain the definitions and scope of the 2010 Open Internet Order, which governed broadband Internet access service providers and to enhance the existing transparency rule, which was upheld

¹⁷⁷ FCC, Preserving the open Internet; final rule, F.R. vol. 76, 2011, p. 59192. Available at <http://www.gpo.gov/fdsys/pkg/FR-2011-09-23/pdf/2011-24259.pdf>.

¹⁷⁸ U.S. Court of Appeal, District of Colombia, *Verizon communications Inc. v. Federal communications commission*, No.11-1355, 14 January 2014. Available at [http://www.cadc.uscourts.gov/internet/opinions.nsf/3AF8B4D938CDEEA685257C6000532062/\\$file/11-1355-1474943.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/3AF8B4D938CDEEA685257C6000532062/$file/11-1355-1474943.pdf).

¹⁷⁹ See <http://www.fcc.gov/openinternet>.

¹⁸⁰ See FCC, *FCC launches broad rulemaking on how best to protect and promote the Open Internet*, 15 May 2014, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-327104A1.pdf.

by the US Court of Appeals. Moreover, as part of the revived “no-blocking” rule, the FCC proposes ensuring that all who use the Internet can enjoy robust, fast and dynamic Internet access¹⁸¹.

1.3.2. European Union

1.3.2.1. Current legal framework

Specific measures to tackle potential net neutrality problems at EU level have been introduced for the first time in 2009. Although the concept of net neutrality is not explicitly defined or mentioned as such¹⁸² in the current Telecoms Package¹⁸³, the European Commission made the following declaration on net neutrality¹⁸⁴:

“The Commission attaches high importance to preserving the open and neutral character of the Internet, taking full account of the will of the co-legislators now to enshrine net neutrality as a policy objective and regulatory principle¹⁸⁵ to be promoted by national regulatory authorities, alongside the strengthening of related transparency requirements and the creation of safeguard powers for national regulatory authorities to prevent the degradation of services and the hindering or slowing down of traffic over public networks”.

Some net neutrality principles may be found in quite a few legal provisions of the Better law-making directive¹⁸⁶ that modified the existing Telecoms Package.

¹⁸¹ *Ibidem*.

¹⁸² O. BRAET, P. VALCKE *et al.*, *op. cit.*, 2013, p. 23.

¹⁸³ The Telecoms Package of 2002 consists of five directives: “Framework Directive”; “Authorisation Directive”; “Access Directive”; “Universal Service Directive”; “Privacy and Electronic Communications Directive”. The Telecoms Package was amended in December 2009 by the two Directives “Better law-making” and the “Citizens' rights”, as well as by a Regulation relating to the Body of European Regulators for Electronic Communications.

¹⁸⁴ European Commission Declaration on Net Neutrality, *O.J.*, L 337 of 18 December 2009, p. 69.

¹⁸⁵ Emphasis added.

¹⁸⁶ Dir. (EC) n° 2009/140 of the European Parliament and the Council of 25 November 2009 amending Directives 2002/21/EC on a common regulatory framework for electronic communications networks and services, 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities, and 2002/20/EC on the authorisation of electronic communications networks and services, *O.J.*, L 337 of December 2009, p. 37-69, (hereinafter Better law-making directive).

- Framework directive¹⁸⁷

Article 8§4, g) states that the national regulatory authorities (NRAs) shall promote the interests of the citizens of the European Union by “applying the principle that end-users should be able to access and distribute any lawful content and use any lawful applications and/or services of their choice”. Moreover, article 8§2, b) provides that NRAs shall promote competition in the provision of electronic communications networks and electronic communications services by “ensuring that there is no distortion or restriction of competition in the electronic communications sector, in particular for the delivery of content”.

The principles contained in article 8§4, g) are similar to the FCC “no-blocking” principle. Article 8§2, b) embodies the same principle as the one in the FCC interpretation of the obligations of the Telecommunications Act of 1996.

- Universal service directive¹⁸⁸

As in the US, the Universal service directive contains quality of service and transparency principles. Indeed, article 22§3 provides that “in order to prevent degradation of service and slowing of traffic over networks, the Commission may, having consulted the Authority, adopt technical implementing measures concerning minimum quality of service requirements to be set by the national regulatory authority on undertakings providing public communications networks”.

Article 20, b) imposes an obligation of “information on any [...] conditions limiting access to and/or use of services and applications, where such conditions are permitted under national law in accordance with Community law”. This provision suggests that network operators may discriminate between services and applications if such discrimination is allowed by national law and as long as end-users are clearly informed. Article 21.3.c) impose the same information obligation in case of a change of the conditions limiting access.

¹⁸⁷ Dir. (EC) n° 2002/21 of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive), *O.J.*, L 108 of April 2002, p. 33-50, as amended by Dir. (EC) n° 2009/140.

¹⁸⁸ Dir. (EC) n° 2002/22 of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive), *O.J.*, L 108 of April 2002, p. 51 – 77, as amended by Dir. (EC) n° 2009/140.

1.3.2.2. The Connected Continent proposal¹⁸⁹

As regards neutrality, there are two important gaps in the 2009 regulatory package: net neutrality remains undefined and there are no rules that prevent *per se* traffic management by ISPs.

More generally, the current European framework does not have clear and stringent rules on net neutrality and for this reason, the Commission proposed new rules on net neutrality in the so called Connected Continent proposal. Article 23 of the proposal entitled “freedom to provide and avail of open internet access and reasonable traffic management” sets out several principles¹⁹⁰:

- Prohibition of discriminatory blocking and throttling and delivery of effective net neutrality;
- Setting out clear rules for traffic management which has to be non-discriminatory, proportionate and transparent;
- Allowing companies to differentiate their offers (for example by speed) and compete on enhanced quality of service;
- Allowing content providers to agree deals with internet providers to assure a certain quality of service in order to meet end-users' demand for better service quality;
- Specialised services must not lead to quality degradation of the "normal"/best efforts Internet;

The European Parliament adopted on April 3, 2014 a series of amendments¹⁹¹ of the proposed “Connected Continent” regulation. The European Parliament introduced in the draft regulation a definition of net neutrality which should be understood as “the principle according to which all Internet traffic is treated equally, without discrimination, restriction or interference, independently of its sender, recipient, type, content, device, service or application.” The European Parliament also narrowed the scope of network management. Indeed, under the

¹⁸⁹ Proposal for a regulation of the European Parliament and of the Council laying down measures concerning the European single market for electronic communications and to achieve a Connected Continent, and amending Directives 2002/20/EC, 2002/21/EC and 2002/22/EC and Regulations (EC) No 1211/2009 and (EU) No 531/2012, COM (13) 627 final.

¹⁹⁰ See <https://ec.europa.eu/digital-agenda/en/connected-continent-legislative-package>.

¹⁹¹ Report on the proposal for a regulation of the European Parliament and of the Council laying down measures concerning the European single market for electronic communications and to achieve a Connected Continent, and amending Directives 2002/20/EC, 2002/21/EC, 2002/22/EC, and Regulations (EC) No 1211/2009 and (EU) n° 531/2012, COM (13) 627 – C7-0267/2013 – 2013/0309(COD), 20 March 2014, <http://www.europarl.europa.eu/>.

amended version network management could only occur for technical measures that are necessary for network security and/or to reduce temporary congestion.

2. Are European net neutrality principles applicable to search engines?

Now that the existing rules on net neutrality have been exposed, it is necessary to assess whether those rules can be applied to search engines.

2.1. Search engines and the Telecoms Package

The Universal Service directive concerns the provision of electronic communications networks and services to end-users¹⁹² and the Framework directive establishes a harmonised framework for the regulation of electronic communications services, electronic communications networks, associated facilities and associated services¹⁹³. Obviously, search engines cannot be defined as communications networks but it is interesting to examine whether they may fall in the other two categories.

2.1.1. Are search engines electronic communication services?

Article 2, c) of the Framework directive, defines an electronic communications service as a “service normally provided for remuneration which consists wholly or mainly in the conveyance of signals on electronic communications networks, including telecommunications services and transmission services in networks used for broadcasting, but exclude services providing, or exercising editorial control over, content transmitted using electronic communications networks and services”. Information society services, as defined in Article 1 of Directive 98/34/EC, which do not consist wholly or mainly in the conveyance of signals on electronic communications networks are explicitly excluded from the definition. This would normally mean that web search engines are excluded since they are considered as a type of information society service (*cf.* Chapter 1, Section 1.1.). Moreover, it is also arguable that search engines provide content¹⁹⁴, which is also a condition that excludes them from the scope of the directive.

¹⁹² See Universal Service directive, article 1.

¹⁹³ See Framework directive, article 1.

¹⁹⁴ P. VALCKE, E. DOMMERING, “Directive 2001/31/EC 'e-Commerce' Directive (eCD)”, in O. Castendyk, E. Dommering, A. Scheuer, *European Media Law*, Netherlands, Kluwer Law International, 2008, p. 1088.

It may, however, be argued that search engines are a good example of convergence in the information society and that they have characteristics of both electronic communications services and information society services. But in the meantime, the information service aspects dominate: search engines are not a mere directory service¹⁹⁵. Indeed, as explained by P. Valcke, “search tools act as directory services, facilitating access to third party information, but they do not edit that information or content themselves”. However, at the same time, “it cannot be denied that the service they offer does not consist wholly or mainly of the conveyance of signals”. The core of search tools service “is not merely to bring signals from point A to point B, but to assist the user in finding the information he/she is looking for by providing references to third party information, ranked, according to relevance, in the light of search terms and/or past user preferences”. Therefore, P. Valcke concludes that “even though search tools may show some aspects of routing services, their added value lies in their functionalities as marketing instruments and content-related services and will therefore fall outside the scope of electronic communications services in the sense of Article 2 (c) Framework Directive¹⁹⁶”.

2.1.2. Are search engines associated facilities?

Article 2, e) of the Framework directive defines associated facilities as “those associated services, physical infrastructures and other facilities or elements associated with an electronic communications network and/or an electronic communications service which enable and/or support the provision of services via that network and/or service or have the potential to do so [...]”.

EPGs are a “form of audiovisual search tool¹⁹⁷” and therefore, an analogy can be made between electronic programme guides (EPGs) and search engines. While EPGs have a “purely facilitative transport function by leading consumer to the content they wish to access, its main task is to provide content, meaning programme and other service information¹⁹⁸”. Despite the fact that the Framework directive clearly excludes services that provide content from its scope, it lists,

¹⁹⁵ N. VAN EIJK, “Search Engines, the New Bottleneck for Content Access”, in B. Preissl, J. Haucap, P. Curwen, *Telecommunications Markets – Drivers and Impediments*, Hamburg, Springer, 2009, p. 153.

¹⁹⁶ P. VALCKE, “In Search of the Audiovisual Search Tools in the EU Regulatory Frameworks”, in S. Nikoltchev, *IRIS Special: Searching for Audiovisual Content*, Strasbourg, European Audiovisual Observatory, 2008, p. 71-84.

¹⁹⁷ *Ibidem*.

¹⁹⁸ N. HELBERGER, “Directive 2002/19/EC 'Access Directive': Access Regulation”, in O. Castendyk, E. Dommering, A. Scheuer, *European Media Law*, Netherlands, Kluwer Law International, 2008, p. 1136.

however, EPGs as an example of associated facility. Therefore, search engines that have to some extent similar functions could qualify as associated facilities even if their main function is to retrieve information i.e. content. But again, the explicit exclusion of information society services - category in which search engines fall – goes against this argument.

Moreover, it appears from article 5§1, b) read in conjunction with article 6 of the Access Directive¹⁹⁹, that the notion of an EPG is confined to the provision of digital radio and television broadcasting services and is only regulated from the angle of its technical (transmission) aspects²⁰⁰. In addition, as noted by N. van Eijk, “the concept ‘facilities’ is used in the context of the provision of universal service, which has just as little relevance for search engines²⁰¹”.

2.2. Conclusion

The current European regulatory framework is not designed for search engines and does not apply to them. Even if it did, the existing rules are not sufficiently developed to guarantee net neutrality, meaning that they would not have been an appropriate tool to guarantee search neutrality. The Connected Continent proposal, if it is adopted, will also not include search engines in its scope of application and the legal loophole regarding search neutrality will continue to exist.

This notwithstanding, it is undeniable that there are many similarities between ISP discrimination and search bias. Consequently, in the next sections a comparison will be made between search engines and network providers in order to establish how net neutrality principles should be adapted to search engines.

3. Search neutrality and net neutrality: a comparative approach

Before demonstrating how similar the issues of net and search neutrality are, a brief overview will be given on the interaction between search engines and network providers.

¹⁹⁹ Dir. (EC) n° 2002/19 of the European Parliament and of the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities (Access Directive), *O.J.*, L 108 of April 2002, p. 7 -20, as amended by Dir. (EC) n° 2009/140.

²⁰⁰ P. VALCKE, *op. cit.*, 2008.

²⁰¹ N. VAN EIJK, “Search Engines: Seek and Ye Shall Find? The Position of Search Engines in Law”, *Iris Plus*, Iss. 2, 2006, p. 9.

3.1. Search engines and net neutrality

In 2006, Google addressed to its users a note on net neutrality²⁰²:

“The Internet as we know it is facing a serious threat. There's a debate heating up in Washington, DC on something called "net neutrality" – and it's a debate that's so important Google is asking you to get involved. We're asking you to take action to protect Internet freedom. [...]

Today the Internet is an information highway where anybody – no matter how large or small, how traditional or unconventional – has equal access. But the phone and cable monopolies, who control almost all Internet access, want the power to choose who gets access to high-speed lanes and whose content gets seen first and fastest. They want to build a two-tiered system and block the on-ramps for those who can't pay”.

The reason why Google is a net neutrality advocate is closely related to its dependency on ISPs. After all, ISPs and search engines are “part of an Internet whose layers are in continuous interaction and whose actors have reciprocal impacts on the services of each other²⁰³”.

Google is like any other content provider, meaning that the access to its search services could be easily blocked or degraded if an ISP decides to do so by managing the data traffic. The ISP might also levy a surcharge on Google to avoid such degradation in quality of service²⁰⁴. Moreover, a competing search engine could make a deal with an ISP in order to guarantee that users will be routed to its site twice as fast as those using Google- for instance, in exchange for a share of the competing search engine's profits. In such a scenario, competition in the search field would not be driven by the quality of search services but by deals between search engines and carriers²⁰⁵.

²⁰² https://www.google.com/help/netneutrality_letter.html (accessed on 8 August 2014).

²⁰³ M. THOMPSON, “In Search of Alterity: On Google, Neutrality and Otherness”, in A. Lopez-Tarruella, *Google and the Law: Empirical Approaches to Legal Aspects of Knowledge-Economy Business Models*, Hague, Springer, 2012, p. 363.

²⁰⁴ F. PASQUALE, *Internet Nondiscrimination Principles: Commercial Ethics for Carriers and Search Engines*, Seton Hall Public Law Research Paper No. 1134159, The University of Chicago Legal forum, 2008, p. 18. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1134159.

²⁰⁵ *Ibidem*.

3.2. Information gatekeepers

Search engines and ISPs share an important common feature²⁰⁶: they are information gatekeepers²⁰⁷. As explained by J. Grimmelmann, if an ISP decides to block the access to a website containing controversial views, no one will be able to reach it and the same will be true if the DNS records for the website are deleted, or if search engines drop the website from their indexes²⁰⁸. This analogy is not accepted by some net neutrality advocates who claim that network providers differ fundamentally from search engines. They argue that “while Google and Yahoo may be the most popular search engines, there are many others to choose from, unlike the market for broadband network providers²⁰⁹”. It is a well-known fact that the telecommunication markets are highly concentrated and require important investments. This reasoning is, however, incorrect because, as it was demonstrated earlier²¹⁰, the search engines market is also highly concentrated due to the important investments required to compensate for the high fixed costs and consumers may be easily locked-in. Basically, consumers do not have as much choice in selecting an efficient search engine as they do not have as much choice in selecting a new ISP.

3.3. Traffic managers

Even if the idea of an open Internet is very seductive, it is undeniable that some sites have to be banished from the web. For example, if a site sends out a great deal of spam, an ISP may prevent future bad behaviour by deprioritizing data packet delivery based on the ownership or affiliation of the content. This practice is very similar to Google’s own practice of warning users of malware or other harmful features of sites that come up on search results²¹¹. In other words, search engines are as much traffic managers on the Internet as network providers are. This is especially true for dominant search engines. As noted by I. Genna, former head of ECTA²¹², “the online search market is dominated by one player, Google, which potentially has the capacity of conveying web traffic, like a dominant ISP can do with internet traffic. The moment when Google starts to

²⁰⁶ See Chapter 1, Section 4.2.

²⁰⁷ B. ZELNICK, E. ZELNICK, *The illusion of net neutrality: political alarmism, regulatory creep, and the real threat to Internet freedom*, Stanford, Hoover Institution Press, 2013, p. 150; G. MANNE, J. WRIGHT, *op. cit.*, 2011, p. 5-6.

²⁰⁸ J. GRIMMELMANN, “What to Do About Google”, *ACM*, vol. 56, n° 9, 2013, p. 29.

²⁰⁹ F. PASQUALE, *op. cit.*, 2008, p. 15.

²¹⁰ See Chapter 1, Section 5.5, Section 5.6 and Section 6.3.

²¹¹ F. PASQUALE, *op. cit.*, 2008, p. 19.

²¹² European Competitive Communications Association

privilege one destination, rather than another, it is posing a threat to the “neutrality” of online search²¹³”.

3.4. Transparency is problematic

If ISPs want to keep an unrestricted right to control traffic, it is because they are afraid that retail customers, software manufacturers and application providers start to use countermeasures once they are aware of the discrimination among packets²¹⁴. Network providers worry that their own network management schemes are evaded. Search engines use the same rationale to justify the secrecy of their algorithms. They fear that websites game the system in order to be highly ranked in the search results. In practice, there are already some examples of manipulation of search results operated by content providers, such as the “google bombing²¹⁵” and “link farms²¹⁶”.

In this context, a transparency requirement for traffic management will be seen as highly problematic by ISPs and search engines, respectively. But the negative effects of a transparent management are not as worrisome as the effects of an opaque traffic management. As noted by Pasquale, “if there is no clear route to the top of organic results for a given term, the only way to assure one’s association with it is to buy paid results from DSEs [dominant search engines] themselves²¹⁷”. This means that search engines might be tempted to manipulate search results - by downgrading companies’ websites - in order to attract more clients for advertising. This issue is included in the scope of the search neutrality debate and is very similar to the situation where ISPs are degrading the access to content in order to obtain financial advantages from the provider of the content.

3.5. Divergences

There are two main dissimilarities between ISP discrimination and search manipulation. Firstly, search biases do not influence the quality of the service supplied by the affected entities while traffic discrimination does affect the quality of the services supplied to the users. Secondly, the

²¹³ I. GENNA, “Expert: The case for search neutrality”, *EurActiv Special report*, 7-11 April 2014, p. 6. Available at http://static.euractiv.com/files/euractiv_special_report_-_consumer_choice_on_the_internet.pdf.

²¹⁴ F. PASQUALE, *op. cit.*, 2008, p. 20; See M. THOMPSON, *op. cit.*, 2012, p. 366.

²¹⁵ Practice of causing a web page to rank highly in search engine results for unrelated or off-topic search terms by linking heavily.

²¹⁶ A link farm is a spamming of the index of a search engine. It is a group of websites that all hyperlink to one or more other sites.

²¹⁷ F. PASQUALE, *op. cit.*, 2008, p. 23.

degree of neutrality required from search engines cannot be the same as the one required from ISPs. Indeed, as noted by F. Pasquale, “search results cannot be entirely neutral due to their inherently hierarchical structure: some site will have to be at the top of the list and others at the bottom. Whereas physical congestion on a network can be alleviated by new technology, it is difficult to imagine a technical solution to the —mental congestion occasioned by information overload²¹⁸”.

4. Applying net neutrality principles to search engines

Now that it has been demonstrated that search engines share common features with network providers, it is appropriate to consider which existing or proposed net neutrality principles, subject to some adjustments, should be applied to search engines in order to guarantee search neutrality. The following principles will be discussed: transparency, no-blocking, non-discrimination and reasonable management.

4.1. Transparency

As mentioned above, transparency is a key principle present in the US and European approach to net neutrality. Indeed, the principle was upheld by the US Court of Appeals in the *Verizon vs. FCC* case and the European Commission openly declared that net neutrality should be promoted alongside the strengthening of related transparency requirements.

As regards search engines, a transparency principle should also be integrated into the concept of search neutrality. It is in this direction that the French Digital Council²¹⁹ submitted a report on the neutrality of Internet platforms²²⁰ on 13 June 2014. In this report, the Council recommends that platforms - including search engines - offer transparency guarantees to its users in order to enable them to realise whether a platform personalise, favours or depreciate some results²²¹. The Council goes further and stresses the fact that greater transparency obligation should be imposed on

²¹⁸ F. PASQUALE, *op. cit.*, 2008, p. 16.

²¹⁹ The Digital Council is an independent advisory commission which issues independent opinions and recommendations on any question relating to the impact of digital technologies on economy and society.

²²⁰ Conseil National du Numérique, *Neutralité des plateformes - Réunir les conditions d'un environnement numérique ouvert et soutenable*, avis n°2014-2, Ministère de l'Economie du Redressement productif et du Numérique, May 2014. Available at http://www.cnnumerique.fr/wp-content/uploads/2014/06/CNNum_Rapport_Neutralite_des_plateformes.pdf.

²²¹ *Ibidem*, recomm. 3, p. 12.

online platforms because of their “prescriber” role²²². It recommends that the various ranking and editing mechanisms are presented in full transparency, especially mechanisms that are concealing or favouring contents and information.

According to L. Introna and H. Nissenbaum, one way of achieving transparency is to “demand full and truthful disclosure of the underlying rules (or algorithms) governing indexing, searching, and prioritizing, stated in a way that is meaningful to the majority of web users²²³”. Such a disclosure would have three main consequences²²⁴:

- inform users about what they are getting from a search engine
- inform websites about the standards they are being submitted to
- inform (future) regulators about what the search engine is actually doing

Of course, as explained in Section 3.4, transparency is problematic for search engines because it makes them vulnerable to spam and other harmful practices for their business. In such situation, the manipulation will come from websites owners and other content providers and the quality of the search results will be significantly degraded. Moreover, if the search engine’s algorithm is made fully public, nothing can stop its competitors to copy it²²⁵, unless laws against unfair trading practices are applicable. Therefore, transparency cannot be achieved by the full disclosure of algorithms without impairing search engines’ functioning, stifling innovation and ultimately harming users.

A more limited approach of transparency would be definitely more appropriate for search engines. For instance, as stated in the 2010 FCC’s Open Internet Order regarding network providers, search engines should be obliged to transparently disclose to their users all relevant information as to the policies that govern their algorithms. Search engines do not need to openly explain how their algorithms work but which principles govern their functioning. Users do not need to know the complex mechanisms of indexing or ranking, all they need to know is whether the search engine personalises, suppresses, favours or depreciate some results and under which

²²² *Ibidem*, recomm. 9, p. 16.

²²³ L. INTRONA, H. NISSENBAUM, “Shaping the Web: Why the Politics of Search Engines Matters”, *The Information Society*, vol. 16, 2000, p. 181.

²²⁴ J. GRIMMELMANN, *op. cit.*, 2010, p. 454.

²²⁵ M. AMMORI, L. PELICAN, *op. cit.*, 2012, p. 25 ff.

criteria it does it. This is in line with the third recommendation of French Digital Council's report²²⁶.

Let's illustrate this with the above mentioned example of "www.jewwatch.com"²²⁷. If a French student wants to write an essay on the Jewish culture and anti-Semitic online movements, he will probably not be able to know that the "most controversial" website is missing from the natural search results. Google informs him that one result is hidden for legal reasons with no further explanation²²⁸. In such situation, the issue of the "unknown unknown"²²⁹ – meaning that the user for whom information is suppressed does not even know that he does not know the information – is eliminated. However, this transparency is clearly not sufficient because the user cannot fully understand Google's intervention. With a legal requirement for transparency, Google would have been obliged to explain which law has been infringed by the "mysteriously hidden" result and therefore, the user would have known that the result is suppressed for hate speech.

In other words, search engines should be legally required to integrate in their general terms and conditions clear explanations on their indexing and ranking policies that should be visible on every search result page. For instance, they have to state that some results could be suppressed for public interest reasons, hate speech, protection of personal data or that some results will be favoured in the search ranking because the search engine has agreed to do so with other commercial entities. This proposition may seem naive and optimistic but this would also be a great way for a search engine to win its customers' trust.

For instance, Google widely claims that its algorithmic results are algorithmically-generated, objective and never manipulated²³⁰. Needless to remind, Google is not completely honest and as noted by B. Edelman, "other search engines make such claims rarely or never"²³¹. Having said that, by imposing a transparency principle to search engines the real issue would be to force them to admit that they are intrinsically biased.

²²⁶ Conseil National du Numérique, *op. cit.*, recomment. 3, p. 12; See also R. FOSTER, *News Plurality in a Digital World*, London, Reuters Institute for Journalism, 2012, p. 45-46.

²²⁷ See Chapter 2, Section 2.3.2.

²²⁸ Indeed, Google just provides a link the website ChillingEffects.org and the user needs to be quite experienced in order to find the exact information relating to the suppression of the link.

²²⁹ O. BRACHA, F. PASQUALE, *op. cit.*, 2008, p. 1178.

²³⁰ See <http://www.google.com/intl/en/about/company/philosophy/> and <http://www.google.com/about/company/products/> (accessed on 11 August 2014).

²³¹ B. EDELMAN, "Bias in Search Results?: Diagnosis and Response", *The Indian Journal of Law and Technology*, Vol. 7, 2011, p. 17-18.

In short, and in conclusion, ensuring that users are aware of the possible grounds for search biases (i.e. suppression, favouring or depreciation of search results) is already a step towards search neutrality. Users have to be informed that search results are as objective as possible but might be biased in some particular circumstances.

4.2. No-blocking

In the context of net neutrality, the no-blocking principle is that end-users should be able to access and distribute any lawful content. By analogy, applied to search engines, this would mean at least two things that are different sides of the same coin:

- end-users are entitled to access any “lawful links” and therefore,
- content providers are entitled to be integrated into search indexes and ranking lists²³².

At first sight, the first situation does not make much sense because end-users can access websites with or without search engines, the only thing they need is an Internet access. However, it must not be forgotten that search engines are the gatekeepers of Internet²³³ and that without them, small and not so popular websites will never be accessed by potential visitors. Users are surrounded by endless information and it is thanks to search engines that they can find the information they are looking for.

As regards the second situation, it should be assessed with caution. It is true that, in order to exist, online content providers need to be indexed by search engines but they also need to be in the first pages of results. However, due to the inherently hierarchical structure of search engines, it would be impossible to force search engines to show every relevant website in the first ten results. As stated earlier, some websites will have to be at the top of the list and others at the bottom. It is therefore essential to understand that a search neutrality principle can never grant a right for content providers to access the first pages of results. As noted by J. Grimmelmann, “looking at the rankings from a website’s perspective, rather than from users’, can be counterproductive²³⁴”. The aim of a search engine is not to give an equal access to every website but to guide the user to the correct online destination by understating his query.

²³² U. GASSER, “Regulating Search Engines: Taking Stock and Looking Ahead”, *Yale Journal of Law and Technology*, vol. 8, iss. 1, 2006, p. 232.

²³³ See Chapter 1, Section 4.2 and Chapter 3, Section 3.2.

²³⁴ J. GRIMMELMANN, *op. cit.*, 2010, p. 448.

The intrinsically hierarchical structure of search engines makes impossible the application of a “no-blocking” or “right to access” principle as it is proposed in the net neutrality context. However, a well-balanced non-discrimination principle might contribute to ensure search engines’ neutrality.

4.3. Non-discrimination and reasonable management

In the US approach of net neutrality, the “no-discrimination” principle is that unreasonable discrimination in transmitting lawful network traffic over a consumer’s broadband Internet access service is forbidden. Reasonable network management shall not constitute unreasonable discrimination. As the FCC explains it very clearly, this “rule strikes an appropriate balance between restricting harmful conduct and permitting beneficial forms of differential treatment²³⁵”. In other words, discrimination is permitted as long as it is “reasonable”. For instance, an unreasonable discrimination would be to favour the traffic from an affiliated entity to the detriment of others.

As regards search engines (and other dominant platforms), the French Digital Council recommends that all discriminations during the indexing process are justified by legitimate considerations and are verifiable by third parties²³⁶. This means that the Council agrees that discrimination exercised by search engines is not *per se* an evil. Indeed, while it might make sense to treat all packets identically, regardless of source or contents, once they arrive at an ISP’s router, trying to apply this kind of equality to search results is absurd. Search engines discriminate among sites and that is why they are designed for. Systematically favouring certain types of content over others is not a deficiency for a search engine but it is the point²³⁷.

Therefore, the key question is what can possibly be the legitimate considerations that will justify that some contents are indexed and displayed on the search results page and not others? In other words, what criteria may legitimate search bias? According to the French Digital Council, quality or customisation might be legitimate reasons to justify discrimination.

More generally, discrimination should be considered as reasonable every time it is beneficial for the users. But how to define what’s beneficial for the end-users? It would be easier to put the

²³⁵ FCC, Preserving the open Internet, *op.cit.*

²³⁶ Conseil National du Numérique, *op. cit.*, recomment. 10, p. 16.

²³⁷ J. GRIMMELMANN, *op. cit.*, 2010, p. 442.

question the other way round: what is harmful for the users²³⁸? To answer this question it will be sufficient to refer to the definition of search neutrality given in the introduction of this work²³⁹. Therefore, a harmful discrimination for the end-users is based on stealth reasons of political, financial or social nature that serve the interests or the opinions of the search engine's owner. For instance, if a search engine excludes from its results a website that contains malware, the manipulation of the results will be justified by the user's safety and therefore, will be reasonable. The same is true if a website is hidden from the user because it contains Nazi propaganda. By contrast, if the search engines gives a poor ranking to a website that offers maps in order to promote its own maps services, this will be not a reasonable discrimination.

5. Implementation of search neutrality principles

It would have been interesting to discuss the implementation itself of search neutrality principles but this will be beyond the scope of this work. This section sets out some brief and general considerations.

Firstly, it is highly desirable that any new legal rules aiming to ensure search neutrality are adopted at EU level in order to ensure a harmonised framework for an information society service, which in essence, knows no borders.

Secondly, once the legal rules have been established it is important to decide who will enforce them. The French Digital Council recommends the creation of rating agencies that will measure platform's neutrality and provide users with guidance²⁴⁰. The Council also suggests that those agencies have investigations powers and are enabled to develop efficient indicators of neutrality. They may be public or private institutions.

This proposal is ambitious but theoretically possible and it might be a good solution to enforce search neutrality rules. As noted by F. Pasquale, search engines “need to be clear about exactly how their business partnerships (and corporate takeovers) affect organic search results. Though the technical fact-finding here may be difficult, some third party needs to be able to evaluate DSEs [dominant search engines] current claims (and implicit assurances) that their organic

²³⁸ See G. MANNE, J. WRIGHT, *op. cit.*, 2011, p. 3.

²³⁹ See Introduction.

²⁴⁰ Conseil National du Numérique, *op. cit.*, *recomm.* 2, p. 11.

results are —objective and unbiased by other business relationships²⁴¹”. However, if such agencies are created, they should function in a way that would not adversely affect the quality of searches and impede innovation²⁴².

6. Conclusion: a more global approach of search neutrality

This chapter first demonstrated that there is no legal framework capable of ensuring search neutrality. Then, it established that search engines are information gatekeepers just as network providers are and that net neutrality principles should be extended to search engines with some necessary adjustments. Indeed, search neutrality may be guaranteed by the application of transparency and non-discrimination principles that should serve the users’ interest.

This chapter has also tried to propose a more global approach of search neutrality. Indeed, after having demonstrated that competition law is not sufficient to deal with harmful search bias other than own content bias, the principles explained above tend to deal with any kind of search results manipulation. By ensuring transparency of principles governing indexing and ranking processes and by allowing manipulation of search results only for legitimate reasons, it can be argued that the objective of search neutrality is accomplished. Actually, if search neutrality objective is to guarantee search results that are free of political, financial or social pressures and that their ranking is determined by relevance, not by the interests or the opinions of the search engines’ owners, then transparency and reasonable discrimination are the rules permitting to achieve this objective. Basically, the transparency of principles guiding search bias provides end-users with information about possible manipulations of search results and the non-discrimination principle ensures that any manipulation of search results is justified by legitimate considerations that will be beneficial to the user.

However, this work will not be complete if one last issue is not debated. What if a search engine like Google is considered to be more an editor than an information conduit? The editor theory is the natural enemy of the conduit theory²⁴³ that was applied in this third chapter. Indeed, if search engines are editors, they will be protected under the freedom of expression and therefore, any neutrality requirement would hamper this freedom. The next chapter aims to explain the issue

²⁴¹ F. PASQUALE, *op. cit.*, 2008, p. 26.

²⁴² M. LAO, *op. cit.*, 2013, p. 4.

²⁴³ J. GRIMMELMANN, *op. cit.*, 2013, p. 29.

that the editor theory may generate for a search neutrality regulation and how this issue might be resolved by media pluralism.

Chapter 4: Search neutrality, freedom of expression and media pluralism

This chapter aims to explain the tension that might exist between the right to freedom of expression and any potential regulation ensuring search neutrality as the one explained in the previous chapter. Before that, it will be necessary to assess whether search engines make editorial choices when they index and rank results (Section 1).

Then, the interactions between freedom of expression, media pluralism and search neutrality will be discussed. The main purpose is to show that search bias may adversely affect media pluralism and how search neutrality may be achieved under the light of these fundamental rights (Section 2).

1. Search neutrality and freedom of expression

1.1. Are search engines editors?

As it has already been said, search engines are the intermediaries between online content providers and end-users. They communicate information about information. In that sense, they distinguish themselves from traditional media. Indeed, media providers do not only select the information and the ideas that will be presented to their users, they also publish the information, thereby becoming the source of publicity²⁴⁴. While the press takes the responsibility for its publications and ideas, search engines merely refer to what is already published. This is the traditional view of the relationship between search engines and media providers²⁴⁵ leading to the conclusion that search engines are not editors, but rather tools designed for helping users to locate desired information within a giant collection of information²⁴⁶.

Nevertheless, as noted previously, search engines are not purely passive intermediaries since the introduction of universal search. Today search engines are providing ultimate information and not merely intermediate information. For instance, in some particular cases, Google provides information regarding maps and it is the source of publicity; the same is true for Yahoo when it

²⁴⁴ J. VAN HOBOKEN, *op. cit.*, 2012, p. 176.

²⁴⁵ E. VAN COUVERING, "The History of the Internet Search Engine: Navigational Media and the Traffic Commodity", in A. Spink, M. Zimmer, *Web Search: Multidisciplinary Perspectives*, Berlin, Heidelberg, Springer, 2008, p. 179.

²⁴⁶ T. WU, "Machine Speech", *University of Pennsylvania Law Review*, vol. 161, 2013, p. 1530.

provides information regarding weather. In those cases, when a search engine offers its own content as an answer to search queries, it might be considered as an editor.

Moreover, it is true that most of the time, search engines are not the “author” of the content they display (pictures, information, videos) but their own search results pages are a space of publication. For example, when Google shows on its results page a picture of New York, the content is not “hidden behind a link”; it is displayed directly on Google’s results page²⁴⁷.

Of course, search engines do not display all contents related to a specific search query on their results page, they only choose the most relevant ones. For that reason, it is essential to assess, in a more general way, whether search engines are editors when they index and rank websites.

Some authors²⁴⁸ argue that “search engines make editorial judgments just like any other media company²⁴⁹”, despite the fact that search engines proclaim themselves as objective and neutral because their results are obtained through automated technologies i.e. the algorithms.

For instance, E. Goldman argues that search engines make individualised judgments about what data to collect and how to display it. Indeed, they do not index every available website on the Internet; they omit deliberately or accidentally some web pages entirely, or may incorporate only part of them²⁵⁰. Likewise, search engines are free to exclude web pages from their indexes for a variety of reasons²⁵¹, such as legal requirements and spamming. Then, “the choice of which factors to include in the ranking algorithm, and how to weight them, reflects the search engine operator’s editorial judgments about what makes content valuable. Indeed, to ensure that these judgments are producing desired results, search engines manually inspect search results and make adjustments accordingly²⁵²”.

In short, there is still no consensus²⁵³ on the editorial role of search engines and even search engines themselves have not decided on which side to be. In this relation, Google is particularly bipolar. Indeed, when Google faces complaints related to the content of listed websites it pretends

²⁴⁷ See Chapter 1, Section 3.

²⁴⁸ See in general E. VOLOKH, D. FALK, “Google First Amendment Protection for Search Engine Search Results”, *Journal of Law, Economics & Policy*, vol. 8, n° 4, 2012, p. 883-900.

²⁴⁹ E. GOLDMAN, *op. cit.*, 2008, p. 125.

²⁵⁰ *Ibidem*, p. 123.

²⁵¹ See J. VAN HOBOKEN, *op. cit.*, 2012, p. 178.

²⁵² *Ibidem*, p. 124.

²⁵³ See in general J. GRIMMELMANN, “Speech engines”, *Minnesota Law Review*, n° 98, 2014, p. 868 – 952.

to be merely “the infrastructure or platform that delivers content” and when it is accused of manipulating search results, it claims to be an “editor”.

1.2. The protection of search results under the right to freedom of expression and the implication for search neutrality regulations

The editorial role of search engines is important because it will determine whether search results are protected or not under the right to free speech. Several American and European case laws will be discussed in order to understand the different views expressed on the matter and the implications for search neutrality regulations.

1.2.1. The American approach

1.2.1.1. Case laws

Recently, a group of Chinese pro-democracy activists sued the Chinese search engine Baidu, demanding \$16 million in damages for allegedly excluding their publications from search results²⁵⁴. Their argument was to say that Baidu was unlawfully blocking from its search results, in the United States, articles and other information concerning “the Democracy movement in China” and related topics. The case raised the question of whether the First Amendment protects as speech the results produced by an Internet search engine.

The court’s starting point for analysis is the case *Miami Herald Publishing Co. v. Tornillo* (1974), in which the Supreme Court held that “a Florida statute requiring newspapers to provide political candidates with a right of reply to editorials critical of them violated the First Amendment. Although the statute did not censor speech in the traditional sense — it only required newspapers to grant access to the messages of others, the Supreme Court found that it imposed an impermissible content-based burden on newspaper speech”.

Then, the district court continues its reasoning by stating that:

“The central purpose of a search engine is to retrieve relevant information from the vast universe of data on the Internet and to organize it in a way that would be most helpful to the searcher. In doing so, search engines inevitably make editorial judgments about what information (or kinds of

²⁵⁴ U.S. District Court, Southern District of New York, *Jian Zhang et al. vs. Baidu.com Inc.*, No Civ. 3388 (JMF), 27 March 2014. Available at <http://fr.scribd.com/doc/215041395/Opinion-in-Baidu-Censorship-Lawsuit>.

information) to include in the results and how and where to display that information (for example, on the first page of the search results or later)’’.

Therefore, the Court concluded that in the circumstances presented, “allowing Plaintiffs to sue Baidu for what are in essence editorial judgments about which political ideas to promote²⁵⁵ would run afoul of the First Amendment”.

Before this decision, two other cases have concluded (albeit with somewhat sparse analysis) that search engines results are protected by the First Amendment. In *Langdon v. Google*²⁵⁶, a website owner filed suit against internet search engine providers, claiming violation of his constitutional rights by providers' alleged refusal to run his website ads. Langdon wanted to buy ads from the major search engines in order to promote two of his websites, but Google rejected his ads because they attacked people, MSN Search ignored his request, and Yahoo said it would only take ads from sites it hosts. The court found that forcing several search engines to carry the plaintiff's ads and “honestly” rank his websites would be prohibited compelled speech. The court explained that “the First Amendment guarantees an individual the right to free speech, a term necessarily comprising the decision of both what to say and what not to say” and decided that the injunctive relief sought by the plaintiff contravenes defendants' First Amendment rights. In other words, the court concluded that just as newspapers cannot be required to print either editorial content or advertising, search engines cannot be forced to include links that they wish to exclude²⁵⁷.

In *Search King v. Google*²⁵⁸, the plaintiff alleged that Google purposefully and maliciously decreased the PageRank of his website, causing a dramatic drop in its traffic from Google and a concomitant fall-off in business. He sought for obtaining a preliminary injunction requiring Google to restore all decreased PageRanks to their previous levels. The court held that Google's rankings are protected speech and refused to grant Search King a preliminary injunction. Indeed, according to the court, PageRanks are opinions of the significance of particular web sites as they correspond to a search query and are therefore, entitled to “full constitutional protection”.

²⁵⁵ Emphasis added.

²⁵⁶ U. S. District Court, District of Delaware, *Langdon v. Google, Inc.*, No 06-319-JJF, 20 February 2007. Available at <http://www.internetlibrary.com/pdf/langdon.pdf>.

²⁵⁷ E. VOLOKH, D. FALK, *op. cit.*, 2012, p. 886.

²⁵⁸ U.S. District Court, Western District of Oklahoma, *Search King Inc. v. Google Inc.*, No CIV-02-1457-M, 13 January 2003. Available at <http://www.internetlibrary.com/pdf/Search-King-Google-WD-Okla.pdf>.

1.2.1.2. Implications for search neutrality and the Google's paradox

At first sight, such decisions are highly problematic for any future search neutrality regulation. Indeed, if search results are editorial judgements protected by free speech, it seems difficult to oblige search engines to display “neutral” results. The Baidu case is particularly striking: search engines have the right to disseminate their (anti-democratic) political views and they cannot be required to be neutral or objective by including results that go against their political views. This decision seems to completely ignore the significant information gatekeeper role that search engines play. By recognising the editor theory, the US court authorises search engines to index and rank results freely without any duty to be neutral. Indeed, as noted by J. Grimmelmann, in the editor theory, “search results are inherently subjective because they express a search engine’s “opinion” about websites. [...] [T]he editor theory describes them as human and subjective, always uncertain and subject to debate. Instead of decrying ‘bias’, the editor theory celebrates it²⁵⁹”.

Even if the editorial role of search engines had to be recognised, there is a paradox that needs to be solved. The paradox is that a dominant search engine like Google is simultaneously arguing that its search results are “opinions” and that those results are “algorithmically-generated”, “objective”, and “never manipulated”. The problem is that Google claims prominently and repeatedly to offer objective results and consumers presumptively rely on these claims²⁶⁰. But they are completely misled because Google delivers a level of objectivity less than it promises. Indeed, how search results could be “never manipulated” when at the same time they are the products of Google’s editorial choices?

E. Volokh and D. Falk tried to justify why search engine results created with the help of computerised algorithms does not rob them of First Amendment protection²⁶¹. By explaining their point of view, they basically admitted that there is no place for objectivity in search engines results. Indeed, they argue that “the computer algorithms that produce search engine output are written by humans. Humans are the ones who decide how the algorithm should predict the likely

²⁵⁹ J. GRIMMELMANN, *op.cit.*, 2014, p. 890; Emphasis added.

²⁶⁰ B. EDELMAN, *op. cit.*, p. 26.

²⁶¹ E. VOLOKH, D. FALK, *op. cit.*, 2012, p. 889.

usefulness of a Web page to the user. These human editorial judgments are responsible for producing the speech displayed by a search engine”.

Here, there is a clear link with the transparency principle discussed in the previous chapter²⁶². It would be naïve to believe that search engines are able to offer neutral results that do not reflect the search engine opinion. However, the end-users have to be clearly informed about that and not misled.

Of course, the above mentioned case laws are rooted in the US approach of free speech. For that reason, it is indispensable to have a look at the European approach of freedom of expression and to assess whether it could have an adverse effect on the establishment of a search neutrality principle.

1.2.2. The European approach

1.2.2.1. The ECHR and the EU Charter

Article 10 of the European Convention of Human Rights²⁶³ (ECHR), provides as follows:

1. Everyone has the right to freedom of expression. This right shall include freedom to hold opinions and to receive and impart information and ideas without interference by public authority and regardless of frontiers. This Article shall not prevent States from requiring the licensing of broadcasting, television or cinema enterprises.

2. The exercise of these freedoms, since it carries with it duties and responsibilities, may be subject to such formalities, conditions, restrictions or penalties as are prescribed by law and are necessary in a democratic society, in the interests of national security, territorial integrity or public safety, for the prevention of disorder or crime, for the protection of health or morals, for the protection of the reputation or rights of others, for preventing the disclosure of information received in confidence, or for maintaining the authority and impartiality of the judiciary.

The ECHR is the most important legal basis for the protection of fundamental rights in Europe. The European Court of Human Rights (ECtHR) supervises the enforcement of the Convention in

²⁶² See Chapter 3, Section 4.1.

²⁶³ Convention for the Protection of Human Rights and Fundamental Freedoms, signed at Rome on 4 November 1950, (hereinafter referred to as “ECHR”).

the 47 Member States of the Council of Europe and it has contributed to make the Convention “a living instrument which must be interpreted in the light of present day conditions²⁶⁴”.

Paragraph 1 provides for three components of the right to freedom of expression:

- freedom to hold opinions;
- freedom to impart information and ideas; and
- freedom to receive information and ideas

It has to be borne in mind that freedom of expression is a compound freedom.

Paragraph 2 sets up a system of restrictions of the exercise of the right to freedom of expression. Indeed, the right to freedom of expression is not an absolute right and must be balanced against other fundamental rights. Three cumulative conditions²⁶⁵ need to be fulfilled in order to consider legitimate any interference with this right:

- the interference is prescribed by law
- the interference is aimed at protecting one or more of the interests or values listed in §2 of article 10
- the interference is necessary in a democratic society

The last condition is a proportionality test: is the aim proportional with the means used to reach that aim? The decision on proportionality is based on the principles governing a democratic society. In *Observer and Guardian v. the United Kingdom*²⁶⁶, the ECtHR stated that “the adjective ‘necessary’, within the meaning of Article 10§2, implies the existence of a “pressing social need” requiring that particular limitation on the exercise of freedom of expression.

Article 11 of the Charter of Fundamental Rights of the European Union²⁶⁷ provides as follows:

²⁶⁴ M. MACOVEI, *A guide to the implementation of Article 10 of the European Convention on Human Rights - Human rights handbooks*, 2nd ed., Germany, Council of Europe, 2004, p. 5-6.

²⁶⁵ M. MACOVEI, *op. cit.*, 2004, p. 29-30.

²⁶⁶ ECHR, *Observer and Guardian v. the United Kingdom*, 26 November 1991, §59, www.echr.coe.int.

²⁶⁷ Charter of Fundamental Rights of the European Union, signed at Nice on 7 December 2000, (hereinafter referred to as “EU Charter”).

1. Everyone has the right to freedom of expression. This right shall include freedom to hold opinions and to receive and impart information and ideas without interference by public authority and regardless of frontiers.

2. The freedom and pluralism of the media shall be respected.

On 1 December 2009, the Charter became legally binding. Article 6(1) of the Treaty on European Union (TEU) now provides that “the Union recognises the rights, freedoms and principles set out in the Charter of Fundamental Rights of the European Union [...], which shall have the same legal value as the Treaties”. The Charter, consequently, constitutes primary EU legislation and it serves as a parameter for examining the validity of secondary EU legislation and national measures.

Article 11 of the Charter has only a limited additional substantive value to the right to freedom of expression at the European level and therefore, the analyses will focus more on Article 10 ECHR.

1.2.2.2. ECtHR and national case law

The question whether search engines are editors is still controversial in Europe²⁶⁸ and until now, the ECtHR has not dealt with a case that involves freedom of expression and search engines. However, the ECtHR has recognised that, as a general principle, privately owned media are free to exercise editorial discretion except in some exceptional circumstances²⁶⁹. Any interference with the media’s freedom of expression must be proportionate and legitimate. In a decision relating to the editorial freedom of newspapers²⁷⁰, the ECtHR reiterates that:

“As a general rule, privately owned newspapers must be free to exercise editorial discretion in deciding whether to publish articles, comments and letters submitted by private individuals or even by their own staff reporters and journalists. The State's obligation to ensure the individual's freedom of expression does not give private citizens or organisations an unfettered right of access to the media in order to put forward opinions. [...] A right of access to the privately

²⁶⁸ N. HELBERGER, K. KLEINEN-VON KÖNIGSLÖW, R. VAN DER NOLL, *Convergence, information intermediaries and media pluralism - mapping the legal, social and economic issues at hand: A quick scan*, Amsterdam, Institute for Information Law, 20 January 2014, p. 9 & p. 22. Available at http://www.ivir.nl/publications/helberger/Information_intermediaries_and_media_pluralism.pdf.

²⁶⁹ ECHR, *Melnichuk v. Ukraine*, 5 July 2005, www.echr.coe.int; Emphasis added.

²⁷⁰ ECHR, *Saliyev v. Russia*, 21 October 2010, §52-53, www.echr.coe.int.

*owned press may be conceded in some circumstances*²⁷¹. [...] *The Court's approach may be different in a situation where the press is, de jure or de facto, in the hands of a monopoly [...]*”

At first sight, the question whether search engines exercise editorial discretion seems decisive because if the editorial theory is admitted, search engines cannot be forced to include websites in their results in order to provide neutral results. However, unlike the US approach of free speech, the Court admits that in some specific circumstances – such as a *de facto* monopoly – a privately owned media provider might be obliged to give access to its structure in order to put forward private individuals’ opinions.

In the same case, the Court established that constitute the exercise of editorial control and judgment, “the choice of the material that goes into a newspaper, the decisions made as to limitations on the size and content of the paper and the treatment of public issues and public officials”.

Based on this assessment, D. Wood claims that “the argument that search rankings might benefit from the protection of article 10 seems far-fetched” and that it is very unlikely that an EU Court would afford search engines the protection of article 10 ECHR since the content of the vast majority of sites that search engines rank does not originate from them, nor are search engines the author or the owner of the information contained in those sites²⁷².

For the sake of completeness, it should be noted that some French courts have already dealt with search engines’ editorial role but regarding Google’s suggestion functionality.

For instance, in *Kriss Laure c. Google Inc.*²⁷³, a company - namely Kriss Laure - sued Google for defamation because the search engine suggested to its users “Kriss Laure sect” when they were typing “Kirss L”. Google’s defence was to argue that search suggestions do not express a human opinion but paradoxically, Google also argued that the display of the suggested search query should be protected under article 10 ECHR. The French High Court of First Instance of

²⁷¹ Emphasis added.

²⁷² D. WOOD, “Freedom of expression, competition and search engines”, *Competition Law Insight*, 12 June 2012, p.

3.

²⁷³ Tribunal de Grande Instance de Paris, 17^e chambre, *Kriss Laure / Larry P. c. Google Inc.*, 15 February 2012. Available at http://www.legalis.net/spip.php?page=jurisprudence-decision&id_article=3357.

Paris rightfully highlighted Google's contradiction²⁷⁴ and decided that even if article 10§1 ECHR was applicable, defamation is sanctioned by the French law in order to protect the reputation of others and necessary in a democratic society, which is in full accordance with article 10§2 ECHR²⁷⁵. Finally, the court decided that Google's keyword suggestion system caused "public abuse" by associating the term "sect" with the name of an association.

There are other identical cases, where the French courts condemned Google for defamation²⁷⁶ and it is questionable whether the courts' decisions recognise implicitly the editorial role of search engines and their right to freedom of expression. Indeed, in the above mentioned case, the court pointed out the fact that there is necessarily a human intervention in Google's suggestion system and therefore, Google cannot claim that the system is completely automatic.

1.2.2.3. Implications for search neutrality

The European approach of freedom of expression is less stringent than the US approach of free speech. The above mentioned cases clearly illustrate that while forcing a search engine to include a website in its search results seems impossible in the US, it might be possible to so under exceptional circumstances in Europe. For instance, because Google is dominant in the search market, it might be required to include (or not exclude without legitimate reason) a website that denounce dictatorship in China.

Moreover, even if search results are protected by the right granted under article 10 ECHR, this right is not an absolute right and it has to be balanced against other fundamental rights, in conformity with article 10§2 ECHR. In concrete terms, if search engines are required to include content in their results or not to exclude content without a legitimate justification, they can argue that there is an interference with their freedom of expression. However, there will be no breach of the search engines' right to freedom of expression if this interference is:

- provided by law (i.e. a search neutrality law),

²⁷⁴ "Attendu que ce n'est pas sans contradiction que les défendeurs invoquent cette convention internationale ayant pour objet de consacrer les droits fondamentaux de la personne humaine alors que leur argument essentiel de défense consiste précisément à soutenir que les propos litigieux sont étrangers à la pensée de cette personne humaine".

²⁷⁵ "Qu'enfin, à supposer que ce texte trouve application s'agissant de ces propositions de recherche, la sanction de propos injurieux est prévue par la loi et par l'alinéa 2 de l'article 10 invoqué, nécessaire dans une société démocratique pour protéger les droits des tiers et parfaitement proportionnée au regard de l'objet de ce service".

²⁷⁶ See Tribunal de Grande Instance de Paris, 17e chambre, *Bruno L., c. Google Inc.*, 23 Octobre 2013 ; Cour d'appel de Paris Pôle 2, chambre 7, *Google c. Lyonnaise de garantie*, 14 December 2011.

- aimed at protecting the rights of others (i.e. end-users right to freedom of expression and right to receive information) and
- necessary in a democratic society (i.e. the interference is proportionate with the aim pursued).

As a result, the editorial characteristics of search results are not an absolute obstacle for a future search neutrality regulation in Europe.

The next section will demonstrate the interrelationships between search neutrality, freedom of expression and media pluralism and it will explain legislative policies of three European institutions that might guarantee search neutrality under the light of the fundamental rights to media pluralism and freedom of expression.

2. Search neutrality and media pluralism

Before discussing the relationship between search neutrality and media pluralism, it is necessary to first explain the notion of media pluralism and then, to clarify the interactions between media pluralism and the fundamental rights to freedom of expression and to receive information.

2.1. The concept of media pluralism²⁷⁷

Media pluralism is enshrined as a fundamental right in article 11§2 of the EU Charter. Nevertheless, the Charter does not define the concept of media pluralism which is wide-ranging. Indeed, there is no generally accepted definition at European or at national level²⁷⁸. For national and European media policies, media pluralism is an important finality considered as necessary premise for the exercise of people's fundamental right to freedom of expression, which "will be fully satisfied only if each person is given the possibility to form his or her opinion from diverse sources of information²⁷⁹". In other words, media pluralism is a concept that implies ensuring citizens' access to a variety of information sources in order to form their opinion without the

²⁷⁷ Discussing the existing notions of media pluralism is beyond the remit of this study and therefore, in this work, only a limited overview will be provided.

²⁷⁸ N. HELBERGER, K. KLEINEN-VON KÖNIGSLÖW, R. VAN DER NOLL, *op. cit.*, 2014, p. 3.

²⁷⁹ Council of Europe, Recommendation N° R(99)1 of the Committee of Ministers to Member States on Measures to Promote Media Pluralism, 19 January 1999, <http://www.coe.int>.

undue influence of one dominant opinion forming power²⁸⁰. According to the Commissioner for Human Rights²⁸¹, “the media are pluralistic if they are multi-centred and diverse enough to host an informed, uninhibited and inclusive discussion of matters of public interest at all times”.

2.2. Interrelationship between freedom of expression, freedom of information and pluralism of the media

As regards the relationship between media pluralism and free speech, it can be argued that “pluralism is an effect of freedom of speech but it is also a value associated with free speech itself” and that “a multi-centred diversity of media outlets is an important prerequisite for free speech²⁸²”. Indeed, freedom of expression and freedom of information are values that are achieved with the assistance of the free media. Without media diversity, even constitutionally granted speech freedoms can become meaningless and disappear.

The Commissioner for Human Rights explains that “whereas freedom of expression might be thought of as ‘the right to speak’, and freedom of information can be characterised as ‘the right to know’, pluralism of the media could be considered ‘the right to choose’ ”.

In other words, freedom of expression and the free imparting of information are individual rights and media pluralism is the institutional guarantee of their fulfilment.

As demonstrated in the next section, the manipulation of search results can affect adversely media pluralism and therefore, violate end-users’ right to freedom of expression and freedom to access information.

2.3. Interrelationship between search neutrality and media pluralism

The relationship between search neutrality and media pluralism is illustrated in the recommendation on the protection of human rights with regard to search engines²⁸³ adopted by the Committee of Ministers of the Council of Europe. Indeed, the Committee declares that:

²⁸⁰ European Commission Staff Working Document SEC (2007) 32 on media pluralism in the Member States of the European Union, January 16, 2007.

²⁸¹ Issue Discussion Paper CommDH (2011)43 of the Commissioner for Human Rights on Media Pluralism and Human Rights, 6 December 2011, p. 6, www.commissioner.coe.int.

²⁸² *Ibidem*.

²⁸³ Council of Europe, Recommendation CM/Rec(2012)3 of the Committee of Ministers to member States on the protection of human rights with regard to search engines, 4 April 2012, §7, <http://www.coe.int>.

“Member States, in consultation with private sector actors and civil society, [should] develop and promote coherent strategies to protect freedom of expression, access to information and other human rights and fundamental freedoms in relation to search engines in line with the Convention for the Protection of Human Rights and Fundamental Freedoms [...], in particular by engaging with search engine providers to carry out the following actions:

- *enhance transparency regarding the way in which access to information is provided, in order to ensure access to, and pluralism and diversity of, information and services, in particular the criteria according to which search results are selected, ranked or removed²⁸⁴; [...]*
- *encourage search engine providers to discard search results only in accordance with Article 10, paragraph 2, of the Convention²⁸⁵. In this event, the user should be informed as to the origin of the request to discard the results subject to respect for the right to private life and protection of personal data;”*

In fact, the Committee admits that search engines play a fundamental role in exercising the right to seek and access information, opinions, facts and ideas, as well as other content. Because access to information is essential to building one’s personal opinion and participating in social, political, cultural and economic life, the key concern of the Committee is the manipulation of search results that might adversely affect pluralism and diversity of information. Indeed, in the appendix to the recommendation, the Committee states that:

“[...] users tend to use a very limited number of dominant search engines. This may raise questions regarding the access to and diversity of the sources of information, especially if one considers that the ranking of information by search engines is not exhaustive or neutral. In this regard, certain types of content or services may be unduly favoured²⁸⁶”.

In other words, the Committee is concerned about search bias that may harm the end-users by reducing the diversity of the sources of information and by improperly favouring certain types of content. This is especially true for highly a concentrated market like the one of online search.

The Committee points out also the importance of the rankings of search results:

²⁸⁴ Emphasis added.

²⁸⁵ Emphasis added.

²⁸⁶ Emphasis added.

“The process of searching for information is strongly influenced by the way that information is arranged; this includes the selection and ranking of search results²⁸⁷ and, as applicable, the de-indexing of content. Most search engines provide very little or only general information about these matters, in particular regarding the criteria used to qualify a given result as the “best” answer to a particular query”.

Finally, the Committee underlines that the filtering and blocking of Internet content by search engine providers “entails the risk of violation of freedom of expression guaranteed by Article 10 of the Convention in respect to the rights of providers and users to distribute and access information”.

Recently, the Steering Committee on Media and Information Society²⁸⁸ also pointed out that “filtering and de-indexation of Internet content by search engines entails the risk of violating the freedom of expression of Internet users” and that “search engines should not conduct any ex-ante filtering or blocking activity unless mandated by a court order or by a competent authority”.

In short, non-neutral indexing and ranking of search results may not only infringe the end-users’ fundamental freedoms of expression and information but also adversely affect media pluralism by reducing the diversity of information.

2.4. Search neutrality under the light of media pluralism

Now that it is clear that the manipulation of search results may be detrimental to media pluralism, it is necessary to understand how search neutrality might be ensured. Therefore, the next sections analyse the legislative policies of three European institutions intended to guarantee media pluralism and therefore, ensure search neutrality.

2.4.1. The Council of Europe

As highlighted above, according to the Council of Europe Committees, there are two main ways to guarantee media pluralism in the context of online search:

²⁸⁷ Emphasis added.

²⁸⁸ Explanatory Memorandum CM(2014)31 addfinal of the Steering Committee on Media and Information Society on the Recommendation CM/Rec(2014)6 of the Committee of Ministers to member States on a guide to human rights for Internet users, 16 April 2014, <http://www.coe.int>.

- enhance transparency of criteria according to which search results are selected, ranked or removed
- ensure that suppression of search results is in accordance with article 10§2 ECHR (i.e. prescribed by law, aimed at protecting interests listed in §2 and necessary in a democratic society), otherwise end-users' freedom of expression and freedom to receive information might be violated

It is worth adding that there is another important way to ensure media pluralism:

- ensure the freedom of search engines to crawl and index information that is openly available on the Web and intended for mass outreach²⁸⁹

Indeed, the Committee of Ministers is convinced of the importance of search engines for rendering content on the Internet accessible and therefore, it considers essential that any request made by public authorities or by private parties for de-indexing or filtering is transparent, narrowly tailored and reviewed regularly subject to compliance with due process requirements.

While the second proposal seems very satisfactory in respect of avoiding arbitrary omissions of search results (cf. *infra*), this third proposition – namely ensuring search engines' freedom to index and crawl information – aims to avoid unjustified exclusions of search results ordered by public authorities and private entities. In this relation, search engines would be protected from social and state pressures that might affect adversely media pluralism and users' right to receive information.

Transparency has already been discussed in chapter 3 as a tool to ensure search neutrality and it is worth pointing out that the Committee understands transparency in the same way. Indeed, it recognises that the full disclosure of algorithms is not appropriate and it encourages “search engine providers to enhance transparency as regards general criteria and processes²⁹⁰ applied to the selection and ranking of results”. The Committee also adds that “this should include information about search bias, such as in presenting results based on apparent geographic location or on earlier searches” and that search engine providers must “clearly differentiate

²⁸⁹ Recommendation CM/Rec(2012)3 of the Committee of Ministers to member States on the protection of human rights with regard to search engines, 4 April 2012, §2, <http://www.coe.int>.

²⁹⁰ Emphasis added.

between search results and any form of commercial communication, advertisement or sponsored output, including ‘own content’ offers”.

The added value of the Committee’s approach of search neutrality is the use of article 10§2 ECHR as a benchmark for “reasonable management” of search results. Indeed, as explained in chapter 3, the main problem with the implementation of a non-discrimination principle was to define what exactly can constitute a legitimate justification to discard search results or rank unfavourably some websites. According to the Committee, any search results manipulation should be in accordance with the end-users’ and content providers’ freedom of expression and freedom of information. That is to say, if a search engine excludes a website from its results page, the exclusion will be legitimate only if it is provided by law, it aims to protect one of the legitimate interests listed in article 10§2 ECHR and is necessary in a democratic society.

This reasoning can be illustrated by a hypothetical example. If Google Belgium blocks from its search results articles and information concerning a terrorist organisation, Google will be presumed to be violating the freedom of expression of Internet users unless it can demonstrate that the blocking is required or authorised by the Belgian law. If such law exists, it must be aimed at protecting legitimate interests listed in article 10§2 ECHR. In this case, such law may aim to protect public safety. Finally, the Belgian national court has to decide whether the interference (i.e. blocking terrorist websites) is proportionate to the aim pursued (i.e. public safety).

The recent decision *Google Spain*²⁹¹ is a good example of balancing end-users’ right to receive information and the removal of links from search results. In this case, the European Court of Justice (ECJ) confirmed that search engines might be requested to remove from their search results information that contravenes the fundamental rights to privacy and data protection. However, the ECJ stated that “the removal of links from the list of results could, depending on the information at issue, have effects upon the legitimate interest of internet users potentially interested in having access to that information, in situations such as that at issue in the main proceedings a fair balance should be sought in particular between that interest and the data

²⁹¹ C-131/12, *Google Spain SL & Google Inc. v. Agencia Española de Protección de Datos (AEPD) & González*, 13 May 2014, not yet published, www.curia.eu.

subject's fundamental rights under Articles 7 and 8 of the Charter²⁹² (i.e. the right to privacy and data protection).

In conclusion, the use of article 10§2 ECHR as a standard to legitimise the suppression of search results seems very promising in order to avoid arbitrary exclusions of results operated by search engines.

2.4.2. The European Commission

Already in 2007, the European Commission recognised that search engines might “constitute a gateway and be detrimental to pluralism, notably by manipulating the search criteria and steering people towards advertisers’ sites²⁹³”. However, at that time, the Commission’s view was rather optimistic: the absence of fundamental technical limitations on the number of search engines that the Internet could support was considered as a sufficient commercial incentive for offering an “objective” search facility.

Today, Commission’s view seems to be different. In its Green paper on media convergence²⁹⁴, the Commission points out that “filtering mechanisms, including personalised search results, make it more likely for people to receive the news in their area of interest, and from a perspective with which they agree”. While such mechanisms have a clear potential for empowering citizens to receive tailor-made services corresponding to their individual needs, this may “decrease the role of the media as editors in the public sphere and strengthen the role of platform providers, for example online companies”. The Commission states that platform providers “may not only determine what content is accessible but can also impact choices, e.g. by varying the prominence with which certain content is displayed²⁹⁵”. It is therefore obvious that this statement targets search bias. Still according to the Commission, platform providers could “influence the *de facto* choice for citizens to access media offerings representing a plurality of opinions and can lead to a situation where citizens potentially find themselves in a vulnerable situation without realising it”.

²⁹² *Ibidem*, § 81.

²⁹³ European Commission Staff Working Document SEC (2007) 32 on media pluralism in the Member States of the European Union, January 16, 2007.

²⁹⁴ European Commission Green Paper on Preparing for a Fully Converged Audiovisual World: Growth, Creation and Values, COM(13) 231 final.

²⁹⁵ Emphasis added.

After having stressed the potentially adverse effects of information intermediaries for the realisation of media pluralism, the Commission explicitly refers to “must carry” rules and to article 6.4 of the Access Directive relating to EPGs. Therefore, as noted by N. Helberger *et al.*, “this reference echoes suggestions to foresee in some kind of access regime for information intermediaries, and search engines in particular, either inspired by the must-carry rules or by the access obligations in the Access directive²⁹⁶”.

Indeed, there are two possible regulatory responses to accommodate the role of information intermediaries for media diversity and pluralism²⁹⁷:

- the obligation to provide access at fair, reasonable, content-neutral and non-discriminatory terms (e.g. net neutrality rules). This is the approach of the Council of Europe which aims to ensure that no content will be blocked by search engines.
- the obligation to positively discriminate by giving preferential access or priority to certain kinds of contents or services of general public interest (e.g. must-carry rules and article 6.4 of the Access directive)

For the sake of completeness, it should be mentioned that article 6.4 of the Access directive allows Member States to impose presentational requirements on operators of EPGs. For instance, EPGs operators might be required to give due prominence of local programming or the programs of the public service media. This is an example of “positive discrimination obligations, i.e. the obligation to grant access to third party services or content offers²⁹⁸”. Must-carry rules are also an example of positive discrimination obligations because they oblige TV cable providers to grant access to certain television broadcast channels and services in order to ensure media pluralism and diversity.

Applied to search engines, the positive discrimination obligation would mean that certain types of content deemed to be “in the public interest” should be included in the list of search results and in

²⁹⁶ N. HELBERGER, K. KLEINEN-VON KÖNIGSLÖW, R. VAN DER NOLL, *op. cit.*, 2014, p. 15.

²⁹⁷ *Ibidem*, p. 13.

²⁹⁸ *Ibidem*, p. 13.

a prominent position. For example, different requirements could be imposed on search engines, such as²⁹⁹:

- listing at least a certain number of different sources on the first page of a search;
- adding a search result box on the front page which is designed to find news/views specifically from a range of ‘non-mainstream’ sources;
- as regards news, displaying at least one “public interest” news source on the front page of any news search

Even if some of these measures may have positive effects for media pluralism, they can also pose risks. First, they could be seen as attempts for censorship rather than interventions in the public interest³⁰⁰. Second, they can be seen as hindering innovation in the search industry. As already discussed earlier, the purpose of a search engine is to locate the most relevant content for the user and the correctness of the results determine the quality of the search service. If some results appear on the result page not because they are relevant to the search query but only because they are of public interest, the quality of the search engine’s service could be lowered.

It is worth noting that the Commission approach to search neutrality is not crystal clear in the Green Paper and that, as explained in the following section, the European Parliament does not seem to follow this regulatory approach.

2.4.3. The European Parliament

In its resolution on Preparing for a Fully Converged Audiovisual World³⁰¹, the European Parliament (EP):

“10. Calls for the diversity of cultural and audiovisual work in a converged world to be accessible to and findable by all Europeans, in particular where the content on offer to users is prescribed by device manufacturers, network operators, content providers or other aggregators;

²⁹⁹ Those examples are inspired from R. FOSTER, *News Plurality in a Digital World*, London, Reuters Institute for Journalism, 2012, p. 50.

³⁰⁰ *Ibidem*, p. 50.

³⁰¹ European Parliament Resolution on Preparing for a Fully Converged Audiovisual World, 2013/2180(INI), 12 March 2014.

11. Believes that, in order to safeguard the diversity of products and opinions, searching for and finding audiovisual content should not be determined by economic interests, and that regulatory measures should only be taken if a platform provider exploits a dominant position in the market or gatekeeper function in order to favour or discriminate against particular content;

12. Calls on the Commission to check the extent to which operators of content gateways tend to abuse their position in order to prioritise their own content³⁰², and to develop measures to rule out any future abuse;”

It is important to note that the resolution of the EP focuses only on the diversity of audiovisual content and that search engines are not mentioned as such in the resolution; instead the EP uses words such as “other aggregators” and “content gateways”. However, it follows from §11 that search engines and particularly the issue of search bias are covered by the resolution.

The EP seems to consecrate the “non-discriminatory” regulatory response to accommodate the search engines role of information intermediaries for media diversity and pluralism. Indeed, in its report on Preparing for a Fully Converged Audiovisual World³⁰³, the EP declares that discrimination-free access to content is not enough and that it is essential to ensure its findability on the content gateways. The EP also states that:

“The Commission, but also Member States, ought to focus on guaranteeing access to and findability of services and content when drawing up new legislation for the media industry. This means that the diversity of cultural and audiovisual work should be accessible and findable for all Europeans in a converged world. This is particularly relevant when user content is presorted or privileged in any way by device manufacturers, network operators, content providers or other aggregators. Searching for and finding audiovisual content on the various content gateways³⁰⁴ must not be exclusively determined by economic interests”.

In simple terms, in order to make a content findable, it must first and foremost be included in search results i.e. not be removed.

³⁰² Emphasis added.

³⁰³ European Parliament Report on Preparing for a Fully Converged Audiovisual World, 2013/2180(INI), 28 January 2014.

³⁰⁴ Emphasis added.

However, the EP rapporteur remains sceptical regarding the effectiveness and enforceability of a ‘must-be-found’ principle that regulates the level of visibility for audiovisual content of general interest³⁰⁵. Therefore, the obligation to positively discriminate by giving preferential access or priority to certain kinds of contents of general public interest is not the solution advocated by the EP in order to regulate the manipulations of search results and to ensure media pluralism.

3. Conclusion

The first section of this chapter dealt with the editorial role of search engines and the impact on any potential regulation aiming at ensuring search neutrality. It was noted that while in the US the impact of the editorial theory was problematic, in Europe, this theory is not a genuine obstacle to any future search neutrality regulation. Indeed, even if search results are protected by article 10 ECHR, freedom of expression is not an absolute right and it has to be balanced against other fundamental rights, in conformity with article 10§2 ECHR.

The second section explained that freedom of expression and freedom of information are values that are achieved with the assistance of media pluralism and that without the latter, even constitutionally granted speech freedoms can become meaningless. It was also demonstrated that the manipulation of search results may adversely affect media pluralism and end-users right to receive information.

Finally, search neutrality was analysed under the light of media pluralism and freedom of expression in Europe. It was established that the Council of Europe promotes the enhancement of transparency of criteria according to which search results are selected, ranked or removed. Emphasis was placed on the added value of the use of article 10§2 ECHR as a benchmark for measuring the reasonable discrimination in search results. The possible contradiction between the different positions of the European Commission and the European Parliament on regulating search engines was also highlighted. The approach of the Commission appeared as favouring

³⁰⁵ “The rapporteur believes that, in principle, it is correct that Member States be given the opportunity to adopt specific rules to guarantee an appropriate level of visibility for audiovisual content of general interest. The rapporteur is yet to be convinced of the effectiveness and/or enforceability of a ‘must-be-found’ principle by means of EU legislation providing for a privileged or presorted offer of all (broadcasting) content on all platforms and content gateways. In addition, it is unclear what form such a priority would take in practice and the regulatory objective of the current Audiovisual Media Services Directive could not simply be applied as is to the internet and converged markets. First and foremost, it is important that all content and programmes can be found. The extent to which a statutory privilege in terms of the order could be useful is questionable, in particular when looking at commercial and not state-owned media content”.

positive discrimination in order to avoid the adverse effects of search bias for media pluralism, while the European Parliament seemed to give priority to a non-discrimination principle. However, the positions of the EU institutions are not clearly expressed as aiming to regulate search engines neutrality.

It is worth noting that neither the EU institutions nor the Council of Europe took into account the issue of search engines right to freedom of expression. This should be considered as a clue that freedom of expression cannot be an obstacle to future search neutrality regulations.

General conclusion

Throughout this study, it was demonstrated that the importance attributed to search neutrality and search bias is closely linked to the role that search engines play in our information society. Search engines are the gatekeepers of considerable amounts of information scattered over the World Wide Web and many end-users consider them to be the most important intermediaries in their quest for information. End-users often believe that search engines are reliable without realising that the tremendous power of those Internet gatekeepers. By manipulating the indexing and ranking of search results, search engines are capable of shaping public opinion. They have the power to control access to information which is essential to building one's personal opinion and participating in social, political, cultural and economic life. Therefore, the objective of this thesis was to research the challenges that emerge when considering developing regulation aimed to ensure the neutrality of search results.

The central research question of this work was to examine whether current legal principles were capable of ensuring search neutrality and to demonstrate how the neutrality of search engines should be ensured by maximising end-users welfare and without compromising search engines efficiency.

For this purpose firstly the functioning and evolution of search models were discussed. It was explained that search engines use sophisticated algorithms in order to index and rank their results and that the introduction of universal search have strengthen their gatekeeping function: search engines are providing ultimate information and not merely intermediate information. Users can find the answer of their queries without leaving the results page of the search engines. It was also established that the market of the web search industry is highly concentrated, has network effects, economies of scale and is driven by innovation. Currently they are only few players in the search industry and this highlights the importance of search neutrality. Indeed, the majority of end-users seek information from only three search engines and if their results are manipulated, those three players can significantly influence the public opinion and reduce media pluralism. Moreover, the advertising business model of search engines has been explained in order to understand that search engines might be tempted to manipulate their search results.

Then, after providing a detailed outline of Google antitrust investigations in Europe and in the US, it was established that competition authorities' interpretation of search bias is limited to the favouring of the own content of the search engine. It was also reported that having regard to the decision of the FTC and the European Commission, the probability of considering search bias as an abuse was very low and that the sole remedy for search bias consisted of ensuring the visibility of three rivals of Google which is not sufficient to reduce the power of the dominant search engine to manipulate its results. It was established that, although preventing search engines from favouring their own content to the detriment of their competitors may favour to some extent the neutrality of search results, competition law was not able to guarantee the neutrality of search engines. On the one hand, the condition of dominance of article 102 TFUE limits the scope of application of competition law to only one undertaking, while all the other search engines remain free to manipulate their search results as long as they do not have a sufficient market power. On the other hand, the narrow interpretation of search bias and search neutrality leads to the conclusion that there are many other types of search results manipulation than own content bias that can harm the end-users. Examples of manipulation of results for political and financial reasons were given.

After demonstrating that the issue of search neutrality is broader than the problem of own content bias, the possibility of considering search engines like traditional telecommunication conduits and their regulation under net neutrality principles were discussed. Therefore, it was demonstrated that neither the existing European rules of net neutrality nor the future telecom regulation will be applicable to search engines in order to guarantee their neutrality. Indeed, search engines are neither "electronic communication services" nor "associated facilities" within the meaning of the Framework directive.

However, the comparison between the issues of traffic management operated by ISPs and search results manipulation by web search providers has shown that net neutrality principles may be used as basis for the regulation of search engines. Indeed, search engines should be obliged to transparently disclose to their users the policies governing the indexing and ranking of their results. Emphasis was placed on the fact that the full disclosure of the functioning of search algorithms is a wrong solution that would impair search engines efficiency, stifle innovation and ultimately harm end-users. It was also demonstrated that a non-discrimination principle should be

encompassed within any search neutrality regulation. This principle should be understood as permitting beneficial forms of differential treatment of search results. Indeed, it is important to realise that discrimination exercised by search engines in their results is not *per se* an evil. Search engines discriminate among sites and that is why they are designed for. Systematically favouring certain types of content over others is not a deficiency for a search engine but it is the point. However, it was noted that any discrimination exercised by web search providers needs to be justified by legitimate considerations. It was stressed that search results manipulations that are motivated by stealth political and financial reasons that serve the interests or the opinions of the search engine's owner can never be considered as legitimate.

The adjustment of net neutrality principles to search engines has led to a more global approach of search neutrality that should be able to deal with any kind of search results manipulations capable of influencing the end-users' opinion on social and political matters. Indeed, the transparency of policies guiding search bias provides end-users with information about possible search bias and the non-discrimination principle ensures that any manipulation of search results is justified by legitimate considerations that will be beneficial to the user.

Then, the thesis stressed that some tension might exist between the right to freedom of expression and any potential regulation ensuring search neutrality. It was established that search engines may exercise an editorial role in the process of indexing and ranking of search results which may lead to the protection of those results under the right to freedom of expression. However, it was illustrated by several case laws that while in the US the impact of the editorial theory was problematic, in Europe, this theory was not a genuine obstacle to any future search neutrality regulation. Indeed, freedom of expression is not an absolute right and it has to be balanced against other fundamental rights, in conformity with article 10§2 ECHR.

In addition, the interactions between freedom of expression, media pluralism and search neutrality were discussed. It was established that manipulation of search results may adversely affect media pluralism because search engines play a fundamental role in exercising the right to seek and access information, opinions, facts and ideas, as well as other content. Indeed, the recommendation of the Council of Europe clearly highlighted the fact that users tend to use a very limited number of dominant search engines and that this may raise questions regarding the access to and diversity of the sources of information.

Finally, this thesis analysed the legislative policies of three important European institutions intended to guarantee media pluralism and therefore, ensure search neutrality. In other words, search neutrality was analysed under the light of the fundamental rights to freedom of expression and media pluralism. It was explained that the approach of the Council of Europe promotes the enhancement of transparency of criteria according to which search results are selected, ranked or removed. This approach is in accordance with what has already been said in this work as regards the adjustment of transparency to search engines. However, emphasis was placed on the added value of the use of article 10§2 ECHR as a benchmark for measuring the reasonable discrimination in search results. Indeed, as it was explained previously, the main problem with the implementation of a non-discrimination principle was to define what exactly can constitute a legitimate justification to discard search results or rank unfavourably some websites. The solution proposed by the Council of Europe consists of analysing the accordance of any search manipulation with article 10§2 ECHR. In short, every manipulation consisting of excluding a website should be authorised by law, aimed at protecting legitimate interests – especially the rights to information of end-users - and necessary in a democratic society. It was also noted that ensuring the freedom of search engines to crawl and index information that is openly available on the Web is also important in order to guarantee the neutrality of search results. Requests made by public authorities or by private parties for de-indexing or filtering search results should be transparent, narrowly tailored and reviewed regularly.

The positions of the European Commission and the European Parliament as regards the regulation of search engines in order to ensure media pluralism were also examined. It was highlighted that the approach of the Commission appears as favouring positive discrimination in order to avoid the adverse effects of search bias for media pluralism. In this relation, it was argued that this type of remedy could be seen as attempts for censorship rather than interventions in the public interest and that the quality and effectiveness of the search engines could be lowered. Moreover, it was demonstrated that the European Parliament itself seems to remain sceptical regarding the effectiveness and enforceability of a ‘must-be-found’ principle that regulates the level of visibility for content of general interest. Although the position of the Parliament is not clearly expressed as aiming to regulate search engines neutrality, it can be inferred that the Parliament gives priority to a non-discrimination principle that would oblige search engines to make any content findable.

In short, this thesis has demonstrated that currently there is no legal framework able to ensure the neutrality of search engines and that the adoption of such framework is highly desirable. Search results manipulations represent a significant threat for the citizen's rights to freedom of opinion, freedom of expression and freedom to receive information. Nevertheless, any future regulation of search engines should take care not to disturb innovation in the search industry and not to impair the efficiency of their services. Therefore, search engines should be regulated by the principles of transparency and reasonable discrimination as they were explained throughout this work. In addition, it should be stressed that ensuring the freedom of search engines to crawl and index information that is openly available on the Web is an essential principle that will reinforce search neutrality.

Search engines will continue to be a major part of our informational environment and the European legislator can no longer ignore the importance of their role as Internet gatekeepers. Search neutrality must be the next major chapter in the fight for overall net neutrality.

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