



IAIC



DGBIC



CREDA

# DIRITTO MERCATO TECNOLOGIA

FONDATA E DIRETTA DA

Alberto M. Gambino

COMITATO DI DIREZIONE

Valeria Falce, Giusella Finocchiaro, Oreste Pollicino,  
Giorgio Resta, Salvatore Sica

29 Marzo 2017

---

How a simple agreement can affect digital markets:  
an antitrust perspective

Giovanna Massarotto

---

COMITATO SCIENTIFICO

Guido Alpa, Giovanni Comandè, Gianluca Contaldi, Vincenzo Di Cataldo,  
Giorgio Floridia, Gianpiero Gamaleri, Gustavo Ghidini, Andrea Guaccerro,  
Mario Libertini, Francesco Macario, Roberto Mastroianni, Giorgio Meo,  
Cesare Mirabelli, Enrico Moscati, Alberto Musso, Luca Nivarra,  
Gustavo Olivieri, Cristoforo Osti, Roberto Pardolesi, Giuliana Scognamiglio,  
Giuseppe Sena, Vincenzo Zeno-Zencovich, Andrea Zoppini

E

Margarita Castilla Barea, Cristophe Geiger, Reto Hilty, Ian Kerr, Jay P. Kesan,  
David Lametti, Fiona MacMillan, Maximiliano Marzetti, Ana Ramalho,  
Maria Páz Garcia Rubio, Patrick Van Eecke, Hong Xue



Nuova  
Editrice  
Universitaria

La rivista è stata fondata nel 2009 da Alberto M. Gambino ed è oggi pubblicata dall'Accademia Italiana del Codice di Internet (IAIC) sotto gli auspici del Ministero dei beni e delle attività culturali e del turismo - Direzione generale biblioteche e istituti culturali (DGBIC) e dell'Università Europea di Roma con il Centro di Ricerca di Eccellenza del Diritto d'Autore (CREDA). Tutti i diritti sono dell'IAIC.

### **Comitato dei Valutazione Scientifica**

EMANUELA AREZZO (Un. Teramo), EMANUELE BILOTTI (Un. Europea di Roma), FERNANDO BOCCHINI (Un. Federico II), ROBERTO BOCCHINI (Un. Parthenope), ORESTE CALLIANO (Un. Torino), LOREDANA CARPENTIERI (Un. Parthenope), VIRGILIO D'ANTONIO (Un. Salerno), FRANCESCO DI CIOMMO (Luiss), PHILIPP FABBIO (Un. Reggio Calabria), MARILENA FILIPPELLI (Un. Tuscia), CESARE GALLI (Un. Parma), MARCO MAUGERI (Un. Europea di Roma), ENRICO MINERVINI (Seconda Un.), MARIA CECILIA PAGLIETTI (Un. Roma Tre), ANNA PAPA (Un. Parthenope), ANDREA RENDA (Un. Cattolica), ANNARITA RICCI (Un. Chieti), FRANCESCO RICCI (Un. LUM), GIOVANNI MARIA RICCIO (Un. Salerno), CRISTINA SCHEPISI (Un. Parthenope), BENEDETTA SIRGIOVANNI (Un. Tor Vergata), GIORGIO SPEDICATO (Un. Bologna), ANTONELLA TARTAGLIA POLCINI (Un. Sannio), RAFFAELE TREQUATTRINI (Un. Cassino), DANIELA VALENTINO (Un. Salerno), FILIPPO VARI (Un. Europea di Roma), ALESSIO ZACCARIA (Un. Verona).

### **Norme di autodisciplina**

1. La pubblicazione dei contributi sulla rivista "Diritto Mercato Tecnologia" è subordinata alla presentazione da parte di almeno un membro del Comitato di Direzione o del Comitato Scientifico e al giudizio positivo di almeno un membro del Comitato per la Valutazione Scientifica, scelto per rotazione all'interno del medesimo, tenuto conto dell'area tematica del contributo. I contributi in lingua diversa dall'italiano potranno essere affidati per il referaggio ai componenti del Comitato Scientifico Internazionale. In caso di pareri contrastanti il Comitato di Direzione assume la responsabilità circa la pubblicazione.
  2. Il singolo contributo è inviato al valutatore senza notizia dell'identità dell'autore.
  3. L'identità del valutatore è coperta da anonimato.
  4. Nel caso che il valutatore esprima un giudizio positivo condizionato a revisione o modifica del contributo, il Comitato di Direzione autorizza la pubblicazione solo a seguito dell'adeguamento del saggio.
- La Rivista adotta un Codice etico e di buone prassi della pubblicazione scientifica conforme agli standard elaborati dal Committee on Publication Ethics (COPE): Best Practice Guidelines for Journal Editors.

### **Comitato di Redazione – [www.dimt.it](http://www.dimt.it) – [dimt@unier.it](mailto:dimt@unier.it)**

PIERPAOLO ARGANELLI, MARCO BASSINI, SIMONA CASTALDO, GIORGIO GIANNONE CODIGLIONE, FRANCESCA CORRADO, CATERINA ESPOSITO, MONICA LA PIETRA, GAETANO MARINO, SILVIA MARTINELLI, DAVIDE MULA (Coordinatore), ALESSIO PERSIANI, ROSARIA PETTI, MARTINA PROVENZANO (Vice-Coordinatore), MATILDE RATTI, VALENTINA ROSSI, SILVIA SCALZINI

### **Sede della Redazione**

Accademia Italiana del Codice di Internet, Via dei Tre Orologi 14/a, 00197 Roma, tel. 06.3083855, fax 06.3070483, [www.iaic.it](http://www.iaic.it), [info@iaic.it](mailto:info@iaic.it)

# How a simple agreement can affect digital markets: an antitrust perspective

**Giovanna Massarotto**

Iowa University, U.S.A.

**Summary:** 1. Introduction – 2. Digital Markets and Antitrust Issues  
2.1. Two-sided markets and Network effects – 2.2. Antitrust Issues – 3.  
Antitrust Settlements and Their Effects on Markets – 3.1. AT&T Case – 3.2.  
Google Search Bias – 4. Conclusions

## **1. Introduction**

In the last decade, digital markets have replaced traditional markets, and such markets can appear different every day. Google Maps, for example, at one moment provides users with a map, and the next, navigates the user anywhere and everywhere. In such different context, where markets are increasingly dynamic, it is difficult, and sometimes impossible, for antitrust agencies to define the relevant market and determine whether a company is jeopardising competition in such a market.

Digital markets often include two-sided markets, but such markets are still underexplored, in addition to network effects that involve both positive and potential negative effects. In such a complex context, the cost of wrongly condemning efficient behaviour is high and used to be higher than the cost of wrongly permitting a monopoly.

A good compromise between wrongly permitting a monopoly and wrongly condemning efficient conduct could be to negotiate a solution directly with the company subject to antitrust investigation. In the context of antitrust law, indeed, an antitrust investigation can end in an agreement between the applicable antitrust agency and the company subject to the investigation, which can be defined as ‘*antitrust settlements*’. Antitrust

settlements are known as *consent decrees* or *consent orders* in the U.S. and *commitment decisions* in Europe.

Through antitrust settlements, the European and U.S. antitrust agencies save time and money by imposing behavioural or structural remedies on the investigated companies, which appear as a form of regulatory regime (namely rules for markets). By doing so, these agreements, as we will see, can significantly change the dynamics of the markets, including digital markets.

## 2. Digital Markets and Antitrust Issues

In addition to agreements in restraint of trade, antitrust law prosecute monopolies or, in EU terms, abuse of dominant position. By doing so, antitrust agencies condemn leaders of market that engage in abusive conduct: including predatory prices (namely prices below costs) and exclusive conduct.

One such example is the case of Intel. On 13 May 2009, by fining Intel € 1.06 billion for having violated Article 102 of the TFEU for abusing its dominant position in the market for CPUs (chips that can be considered as the “brain” of the computer), the European Commission showed to take seriously abuse of dominance position conduct. In particular, the EU Commission affirmed that Intel was responsible for “engaging in illegal anticompetitive practices to exclude competitors from the market for computer chips called x86 central processing units (CPUs)”<sup>1</sup>. According to the EU Commission, Intel engaged in two illegal practices: Intel granted wholly or partially hidden rebates to computer manufacturers “on condition that they bought all, or almost all, their x86 CPUs from Intel”<sup>2</sup>. Second, Intel would have “made direct payments to a major retailer on condition it stock only computers with Intel x86 CPUs”<sup>3</sup>. More recently, the EU Commission

---

<sup>1</sup> EU Commission, Presse Release: Antitrust: Commission imposes fine of €1.06 bn on Intel for abuse of dominant position; orders Intel to cease illegal practices, [http://europa.eu/rapid/press-release\\_IP-09-745\\_en.htm](http://europa.eu/rapid/press-release_IP-09-745_en.htm) (May 13, 2009).

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

has fined Google € 2.42 billion for abusing its dominant position in general Internet search by giving preference to its own comparison shopping product in its general search results pages<sup>4</sup>. By doing so, according to the EU Commission, Google would have excluded rivals from Google Search platform by stifling competition.

Although both Intel and Google are tech giants that received heavy fines for engaging in similar antitrust conduct by leveraging their market power, there is a significant difference between these two EU Commission decisions: the market in which they exerted market power. The Intel case concerned the computer chip market—a market for technology hardware, while Google, alleges the EU Commission, has abused its dominant position in the general Internet search market—a digital market.

Most of today's markets are evolving into various digital markets: smartphone applications and e-commerce platforms are only two examples. Digital markets are inherently dynamic and unpredictable. Google Maps, as mentioned above is extremely versatile—functioning as an interactive map and GPS. Similarly, TripAdvisor, functions as a consumer review platform of restaurants and hotels but also allows users to directly book a room or reserve a table in a restaurant.

Thus, antitrust agencies are focusing on general digital markets<sup>5</sup>, which include versatile and dynamic products, but the fact that such markets are changing ever so rapidly and are extremely unpredictable makes competition enforcement more challenging than usual. First, fast changing markets are difficult to define. Second, most of digital markets include two-sided markets or two-sided platforms. Third, the creation of dominant firms in digital industries is often a natural consequence of this kind of markets characterized by the so-called *network effects*.

---

<sup>4</sup> EU Commission, Presse Release: Antitrust: Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service – Factsheet,

[http://europa.eu/rapid/press-release\\_MEMO-17-1785\\_en.htm](http://europa.eu/rapid/press-release_MEMO-17-1785_en.htm) (June 27, 2017)

<sup>5</sup> European Commission, Press Release: Commission launches e-commerce sector inquiry, (May 6, 2016), Daniel Zimmer, *Digital Markets: New Rules for Competition Law*, J. EUR. COMPETITION L. & PRACTICE 627 (2015).

## 2.1. Two-sided Markets and Network Effects

In contrast to traditional markets where a company sells its products to a group of consumers, in two-sided markets or two-sided platforms, companies (e.g. Google or Facebook) sell services or products “to two different groups of consumers (the so-called two ‘sides’ of the market)”<sup>6</sup>. Google, indeed, does not profit directly from Google Search (the first-side of the market), but from advertisers (the second-side of the market). Similarly, Facebook profits from advertisers, and the price for advertising on Facebook depends on the number of Facebook users.

In other words, Google and Facebook represent intermediaries between users and advertisers. Google, through Google Search, attracts searchers by offering search results for free. These users form an audience that in turn attracts the advertisers<sup>7</sup>. Therefore, prices and profits are linked on the two sides; this phenomenon that characterizes two-sided markets is mainly related to *network effects*<sup>8</sup>, which are similar to the concept of economies of scale in that the value of a good or service is dependent on the number of users<sup>9</sup>.

---

<sup>6</sup> Lapo Filistrucchi, Damien Geradin, Eric van Damme & Pauline Affeldt, *Market Definition in Two-Sided Markets: Theory and Practice*, 10 J. COMPETITION L. & ECON. 293, 295 (2014).

<sup>7</sup> See, e.g., David S. Evans, *The Antitrust Economics of Multi-Sided Platform Markets*, 20 YALE J. ON REG. 325 (2003); Jean-Charles Rochet & Jean Tirole, *Two-Sided Markets: A Progress Report*, 37 RAND J. ECON. 645 (2006); Jean-Charles Rochet & Jean Tirole, *Platform Competition in Two-Sided Markets*, 1 J. EUR. ECON. ASS’N 990, 990-91; Roberto Roson, *Two-Sided Markets: A Tentative Survey*, 4 REV. NETWORK ECON. 142 (2005); Sujit Chakravorti & Roberto Roson, *Platform Competition in Two-Sided Markets: The Case of Payment Networks*, 5 REV. NETWORK ECON. 118 (2006); Mark Armstrong, *Competition in Two-Sided Markets*, 37 RAND J. ECON. 668 (2006); Andrei Hagiu, *Two-Sided Platforms: Product Variety and Pricing Structures*, 18 J. ECON. & MGMT. STRATEGY 1011 (2009); Mark Rysman, *The Economics of Two-Sided Markets*, 23 J. ECON. PERSP. 125, 125-27 (2009).

<sup>8</sup> See, e.g., Daniel Zimmer, *Digital Markets: New Rules for Competition Law*, J. EUR. COMPETITION L. & PRACTICE 627 (2015).

<sup>9</sup> See CARL SHAPIRO & HAL R. VARIAN, *INFORMATION RULES: A STRATEGIC GUIDE TO THE NETWORK ECONOMY*, 45 (Harv. Univ. Press, 1999).

As economists observed, not only companies, but also consumers benefit from network effects<sup>10</sup>. As more consumers join the network/platform, the more valuable is the network/platform to each consumer. The Internet is probably the most important example of how a common network can benefit consumers<sup>11</sup>.

On the other hand, significant network effects can build effective barriers to entry and consequently, monopoly power. Companies, such as Google and Facebook are only two examples. Monopoly power is not unlawful in and of itself; a firm with monopoly power, indeed, can benefit markets. However, throughout history, similar companies have often abused their dominant position by suppressing competition; antitrust enforcement agencies have intervened to contrast such abuses. In the telecommunication industry, as we will see in paragraph 3, telecommunication companies have used their bottleneck to leverage market power and exclude rivals, raising antitrust concerns<sup>12</sup>.

## 2.2. Antitrust Issues

In such a complex scenario, antitrust agencies need first to define the correct market to identify companies with monopoly power that could engage in anticompetitive conduct<sup>13</sup>. Second, antitrust authorities have to distinguish the bad anticompetitive acts from the aggressive procompetitive

---

<sup>10</sup> See, e.g., Hanna Halaburda, Bruno Jullien & Yaroh Yehezkel, Dynamic Competition with Network Externalities: Why History Matters, Working Paper n. TSE-636, page 8 available at [https://www.tse-fr.eu/sites/default/files/TSE/documents/doc/wp/2016/wp\\_636.pdf](https://www.tse-fr.eu/sites/default/files/TSE/documents/doc/wp/2016/wp_636.pdf) (March, 2016). See also, Nicholas Economides, *The Internet and Network Economics*, available at [http://www.stern.nyu.edu/networks/Economides\\_Internet\\_and\\_Network\\_Economics.pdf](http://www.stern.nyu.edu/networks/Economides_Internet_and_Network_Economics.pdf), at 247. “A positive consumption externality (or network externality) signifies the fact that the value of a unit of the good increases with the number of units sold”.

<sup>11</sup> See Nicholas Economides, *The Internet and Network Economics*, available at [http://www.stern.nyu.edu/networks/Economides\\_Internet\\_and\\_Network\\_Economics.pdf](http://www.stern.nyu.edu/networks/Economides_Internet_and_Network_Economics.pdf).

<sup>12</sup> See AT&T antitrust cases. United States v. American Tel. and Tel. Co., 552 F. Supp. 131, 178 n.196 (D.D.C. 1983).

<sup>13</sup> See, e.g., Lapo Filistrucci, Damien Geradin, Eric Van Damme & Pauline Affeldt, *Market Definition in Two-Sided Markets: Theory and Practice*, 10 J. COMPETITION L. & ECON. 293 (2014).

acts performed by dominant firms. Indeed, the enforcement agencies' principal antitrust concern is with digital markets that are, or may become, monopolized by firms that maintain their market power through non-competitive conduct and acquisitions<sup>14</sup>. Given the complexity and rapid change in digital markets, critics question the ability of antitrust authorities, such as the European Commission, to make beneficial enforcement decisions. Professor Davis S. Evans questions whether antitrust agencies in digital industries can protect consumers without "causing harm from interfering in complex business that are both rapidly moving and not fully understood"<sup>15</sup>. Therefore, how can antitrust agencies efficiently intervene in digital markets?

As Judge Frank Easterbrook explained, the cost of wrongly condemning efficient behaviour used to be higher than the cost of wrongly permitting a monopoly<sup>16</sup>. This poses the question: should antitrust enforcers intervene in digital markets? If the answer is affirmative, could an agreement between the applicable antitrust agency and the company subject to the investigation be the appropriate solution? What are the potential effects of antitrust settlements in digital markets? These and other questions are explored below.

---

<sup>14</sup> See, e.g., Howard A. Shelanski, *Information, Innovation, and Competition for the Internet*, 161 UNIV. PENNSYLVANIA L. REV. 1663 (2013); Herbert Hovenkamp, *Antitrust and Information Technologies* (2016). Faculty Scholarship. [http://scholarship.law.upenn.edu/faculty\\_scholarship/1810](http://scholarship.law.upenn.edu/faculty_scholarship/1810).

<sup>15</sup> Davis S. Evans, *Antitrust Issues Raised by the Emerging Global Internet Economy*, 102 NORTHWESTERN UNIV. L. REV. 285 (2008).

<sup>16</sup> See DOMINICK T. ARMENTANO, *THE MYTHS OF ANTITRUST* 32 (Arlington House, 1972). According to Dominick Armentano competition does not exist and government regulation to develop markets is not justified. See also JOSEPH A. SCHUMPETER, *CAPITALISM, SOCIALISM AND DEMOCRACY* (1942). Schumpeter argued that some degree of monopoly is preferable to perfect competition. Specifically, Schumpeter noted that competition from innovations is an "ever-present threat" that "disciplines before it attacks". Similarly Jorde & Teece alleged that "antitrust laws may be at odds with technological and economic welfare". THOMAS M. JORDE & DAVID J. TEECE, *ANTITRUST, INNOVATION, AND COMPETITIVENESS* 3 (eds., Oxford University Press 1992); see also J. Gregory Sidak & David J. Teece, *Dynamic Competition in Antitrust Law*, 5 J. COMPETITION L. & ECON. 581 (2009).



### 3. Antitrust Settlements and Their Effects on Markets

As an alternative to a long antitrust proceeding that can lead the Antitrust Agency to impose an heavy fine on the company subject to the investigation, the Agency can settle an antitrust case by way of agreement—an antitrust settlement. Antitrust settlements are known as *consent decrees* or *consent order* in the U.S. and *commitment decisions* in Europe. The practice of antitrust settlements is particularly common in the United States, where more than ninety percent of civil antitrust lawsuits filed by the U.S. government (excluding mergers) are settled by means of consent decrees<sup>17</sup>.

Through antitrust settlements, the European and U.S. antitrust agencies save time and money by imposing procompetitive behavioural or structural remedies on the investigated companies. Undertakings, in exchange for specific commitments, avoid the risk of uncertain and expensive antitrust cases, fines and damage to reputation<sup>18</sup>.

In the history of antitrust enforcement, antitrust settlements have significantly affected (especially in the U.S.) the dynamics of markets, thus consumers' daily life. A key case study is the AT&T consent decree.

#### 3.1. AT&T Case

AT&T (the American Telephone and Telegraph Company) is the largest U.S. telecom company founded by the inventor of the telephone Alexander Graham Bell (for which he received two patents), and two financiers, Thomas Sanders and Gardiner Greene Hubbard<sup>19</sup>. In 1885, the AT&T built the original long distance network. AT&T became the holding company of

---

<sup>17</sup> Organisation for Economic Co-operation and Development, *Commitment Decisions in Antitrust Cases, Note by the United States* 7 (Jun. 15-16, 2016), available at [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/WD\(2016\)23&doclanguage=en](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/WD(2016)23&doclanguage=en).

<sup>18</sup> John Temple Lang, *Commitment Decisions and Settlements with Antitrust Authorities and Private Parties Under European Antitrust Law*, in 2005 ANNUAL PROCEEDINGS OF THE FORDHAM CORPORATE LAW INSTITUTE 265 (Barry Hawk ed., 2006), at 271-76.

<sup>19</sup> AT&T, Milestones in AT&T History, <https://www.corp.att.com/history/milestones.html>.

the Bell System, involved in the entire production chain of telephone services: long distance, local distance and telecommunication equipment markets<sup>20</sup>. In 1894, the first AT&T patents expired, and AT&T lost ground to its competitors<sup>21</sup>. The telephone industry opened up to competition<sup>22</sup>.

In 1909, AT&T, led by the business strategy of its chairman, Theodore N. Vail, restored the AT&T's monopoly. AT&T acquired independent telephone companies and Western Electric Company. According to Vail, the telephone system needed for "universal, independent and intercommunication, affording opportunity for any subscriber of any other exchange..."<sup>23</sup>.

In reaction, a number of independent telephone companies filed antitrust suits against the AT&T monopoly<sup>24</sup>. In 1949, the U.S. Department of Justice (DOJ) Antitrust division filed an antitrust suit against AT&T, which ended with a consent decree—thus an antitrust settlement. Section 5 of the decree, for example, established that AT&T was "enjoined and restrained from engaging, either directly, or indirectly through its subsidiaries other than Western and Western's subsidiaries, in any business other than the furnishing of common carrier communications services"<sup>25</sup>.

---

<sup>20</sup> FEDERAL TRADE COMMISSION, MEASUREMENTS OF MARKET POWER IN LONG DISTANCE TELECOMMUNICATIONS, April 1995, available at <http://www.ftc.gov/be/econrpt/232316.pdf>.

<sup>21</sup> HARRY M. SHOOSHAN III, DISCONNECTING BELL: THE IMPACT OF THE AT&T DIVESTITURE 10 (NEW YORK: PERGAMON PRESS, 1984). "By 1907, the Bell System had 3,132,000 telephones in service compared to about 2,987,000 for ten independents".

<sup>22</sup> Roger G. Noll, *The Role of Antitrust in Telecommunications*, 40 ANTITRUST BULL. 501 (1995).

<sup>23</sup> SHOOSHAN III, *supra* note 21, at 10.

<sup>24</sup> For the definition of natural Monopoly see e.g., Daniel F. Spulber, *Deregulating Telecommunications*, 12 YALE J. ON REG. 25, 31 (1995). ("A given production technology is said to exhibit the property of natural monopoly if a single firm can supply the market at lower cost than can two or more firm"). *Id.* According to Spulber, "traditional justifications for regulating industries, such as the presence of natural monopoly technologies, may no longer apply in the presence of technological change and competitive entry". *Id.* Generally, the natural monopoly concept is credited to John Stuart Mill. JOHN S. MILL, PRINCIPLES OF POLITICAL ECONOMY 132-54 (W. J. Ashley, ed., Augustus M. Kelly, 1961).

<sup>25</sup> *United States v. American Tel. and Tel. Co.*, 552 F. Supp. 131, 178 n.196 (D.D.C. 1983).

Although the AT&T monopoly in the telecommunication industry did not end, the agreement reached in 1956 between the DOJ and AT&T led to the creation of the first and most important universal operating system and open source project—Unix<sup>26</sup>. In 1969, AT&T researchers designed the Unix operating system, but the terms of the consent decree of 1956 prevented AT&T from selling software, such as Unix<sup>27</sup>. As a consequence, AT&T had to freely license the computer Unix operating system. Professor Steven Weber observed that “[t]he sensible thing was to license Unix to university departments and research units and later to the military and commercial users”<sup>28</sup>. Owing to the so-called network effects, software developers from all over the world increasingly adopted Unix, which soon became the most important universal operating system<sup>29</sup> and the underling language of the Internet.

In 1974, to contrast the still AT&T monopoly in the telecommunication industry, the DOJ filed a new antitrust suit against AT&T that modified the consent decree of 1956, known as the Modification of Final Judgment (“MFJ”) of 1984. The MFJ required AT&T to divest seven subsidiaries that provided long-distance service, out of its twenty-two Bell Operating Companies (BOCs). Since 1984, AT&T continued to operate the long-distance and manufacturing units of its remaining BOCs and its market share of ninety percent<sup>30</sup> in the long distance market decreased to around forty-

---

<sup>26</sup> David McGowan, *Between Logic and Experience: Error Costs and United States v. Microsoft Corp.* 20 BERKELEY TECHNOLOGY L. J. 1186, 1208 (2005).

<sup>27</sup> *United States v. AT&T*, 552 F. Supp. 131, 138 (D.D.C. 1982).

<sup>28</sup> STEVEN WEBER, *THE SUCCESS OF OPEN SOURCE* 28 (2004). (“The sensible thing was to license Unix to university departments and research units and later to the military and commercial users. The terms of the early Unix licenses were minimal: The software came “as is” with no royalties to AT&T, but also no support and no bugs fixes”). *See also* Giovanna Massarotto, *Open Source Paradigm: Beyond the Solution to the Software Patentability Debate*, 15 J. MARSHALL REV. INTELL. PROP. L. 647, 664 (2016).

<sup>29</sup> LAURA LAMBERT, *INTERNET: A HISTORICAL ENCYCLOPEDIA* 138 (MTM Pub., 2005). The development of Berkley Unix “helped pave the way for the way for the open-source movement”. *Id.*

<sup>30</sup> Here are considered market share based on revenues of long distance carriers only. *See* FEDERAL TRADE COMMISSION, *STATISTICS OF COMMUNICATIONS COMMON CARRIERS* Table 1.5 available at <http://www.fcc.gov/reports/statistics-communications-common-carriers-1996> (1996).

seven percent in 1996<sup>31</sup>. On the other hand, the MFJ allowed the telecommunications giant to enter the computer and software markets.

Although, the consent decree of 1956 and the MFJ might not be the best procompetitive reliefs, they were time-sensitive and perhaps the only way to *de facto* interrupt a monopoly in one of the most crucial markets and to develop a potential universal operating system from which originated Internet. The effects of a simple agreement changed, not only the U.S. consumers' life, but also the telecommunication industry as a whole.

### 3.2. Google Search Bias

In 1995, Larry Page and Sergey Brin were PhD candidates at Stanford University when they created an algorithm that searched all hypertext documents in cyberspace<sup>32</sup>, turned into the Google Search engine. The Google algorithm has been patented in the U.S. as a method for node ranking in a linked database<sup>33</sup>.

In 2017, Google holds approximately 81.72 percent of the worldwide desktop search engine market share<sup>34</sup>. Therefore, although other companies have tried to replicate and replace Google search<sup>35</sup>, Google Search is still the platform leader of Internet search.

---

<sup>31</sup> *Id.* at 8. Indeed, the Commission after the 1984 break-up of AT&T started to reduce long-distance rates and make cost recovery more efficient. Jerry Hausman and Howard Shelanski, *Economic Welfare and Telecommunications Regulation: The E-Rate Policy for Universal-Service Subsidies*, 16 YALE J. ON REG. 19, 23 (1999).

<sup>32</sup> Sergey Brin & Larry Page, The PageRank Citation Ranking: Bringing Order to the Web, (Jan. 29, 1998) available at <http://ilpubs.stanford.edu:8090/422/1/1999-66.pdf>. Brin and Page in their paper explain how they have taken “advantage of the link structure of the Web to produce a global importance ranking of every web page. This ranking, called PageRank, helps search engines and users quickly make sense of the vast heterogeneity of the World Wide Web”.

<sup>33</sup> U.S. Patent No. 6,285,999 (filed Jan. 9, 1998).

<sup>34</sup> Netmarketshare, Desktop Search Engine Market Share, <https://www.netmarketshare.com/search-engine-market-share.aspx?qprid=4&qpcustomd=0>.

<sup>35</sup> Search Engine Watch, Say goodbye to Google: 14 alternative search engines (Feb. 25, 2016), <https://searchenginewatch.com/2016/02/25/say-goodbye-to-google-14-alternative-search-engines/>.

This can be the result of bad anticompetitive acts or aggressive procompetitive acts performed by Google. On November 30, 2010, following the complaint by some search service providers, the EU Commission opened an antitrust proceeding against Google concerning alleged unfavorable treatment of rival services in Google’s unpaid and sponsored search results<sup>36</sup>. In 2011, the Federal Trade Commission (FTC) sent a complaint to Google opening an investigation based on similar antitrust allegations. The common claim in both the U.S. and EU investigations was that Google intentionally manipulated its algorithm by altering both organic and paid search results, favouring its own services at the expense of rivals, such as TripAdvisor or Booking<sup>37</sup>. Those cases are well known as Google “search bias”<sup>38</sup>.

While in January 2013, the FTC closed the case without finding any antitrust violations, in June 2017, the EU Commission fined Google €2.42 billion for abusing its dominant position in the general internet search<sup>39</sup>. On January 3, 2013, the FTC alleged in its statements that, according to the totality of the evidence collected in the search bias investigation, Google’s conduct was a “common byproduct of ‘competition on the merit’ and the competitive process that the law encourages”<sup>40</sup>. Moreover, to resolve FTC concerns, Google voluntary “agreed to give online advertisers more flexibility to simultaneously manage ad campaigns on Google’s AdWords platform and on rival ad platforms; and to refrain from misappropriating

---

<sup>36</sup> European Commission Press Release IP/10/1624, Antitrust: Commission probes allegations of antitrust violations by Google (November 30, 2010).

<sup>37</sup> See, e.g., *In the Matter of Google Inc*, Statement of the Federal Trade Commission Regarding Google’s Search Practices. FTC File No. 111-0163 January 3, 2013 at 2; James D. Ratliff & Daniel L. Rubinfeld, *Is There a Market for Organic Search Engine Results and Can Their Manipulation Give Rise to Antitrust Liability?*, 10 J. COMPETITION L. & ECON. 517 (2014).

<sup>38</sup> *In the Matter of Google Inc*, Statement of the Federal Trade Commission Regarding Google’s Search Practices. FTC File Number 111-0163 January 3, 2013.

<sup>39</sup> EU Commission, Presse Release: Antitrust: Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service – Factsheet,

[http://europa.eu/rapid/press-release\\_MEMO-17-1785\\_en.htm](http://europa.eu/rapid/press-release_MEMO-17-1785_en.htm) (June 27, 2017)

<sup>40</sup> *In the Matter of Google Inc*, Statement of the Federal Trade Commission Regarding Google’s Search Practices. FTC File Number 111-0163 January 3, 2013 at 2.

online content from so-called “vertical” websites that focus on specific categories such as shopping or travel for use in its own vertical offerings”<sup>41</sup>.

In short, in contrast to the EU Commission, the FTC opted for a settlement solution that may not be the perfect one, but one that was swift and tailored to specific antitrust concerns.

#### **4. Conclusions**

In summary, the Google cases exemplify the current challenges in enforcing competition law in digital markets, which are increasingly dynamic and unpredictable, and thus more complex from (and incomparable to) traditional markets. Antitrust agencies all over the world question whether the result of Google’s success is due to anticompetitive behavior, or it is merely connected to the network effects and standardization process in network industries. As a consequence: should antitrust enforcers intervene in such a complex and unpredictable context?

Network effects that have both positive and negative consequences mainly characterize digital markets. However, digital markets did not create network effects, which already existed in the telecommunication industry and generally for many information technologies<sup>42</sup>.

In other words, despite the time has passed, Google case does not differ significantly from the AT&T case. Both Google and AT&T own a platform that became even more important as a result of network effects. Therefore, it might help to see how antitrust agencies settled the AT&T case. Here, one of the U.S. antitrust agencies, the DOJ, opted for a settlement solution enshrined into a consent decree.

---

<sup>41</sup> Federal Trade Commission, 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 (Jan. 3, 2013), <https://www.ftc.gov/news-events/press-releases/2013/01/google-agrees-change-its-business-practices-resolve-ftc>.

<sup>42</sup> CARL SHAPIRO & HAL R. VARIAN, *INFORMATION RULES: A STRATEGIC GUIDE TO THE NETWORK ECONOMY*, *supra* note 9, at 13.

The analysed AT&T case shows how antitrust settlements not only can address competition concerns in markets with network effects, but also drive the path of innovation<sup>43</sup>. Because today's markets are increasingly dynamic, it is difficult, and sometimes impossible, for antitrust agencies to define such markets and efficiently enforce antitrust law provisions by promoting innovation.

Antitrust settlement as a tool, with no clear winners or losers, can be the right remedy to achieve a happy ending for antitrust enforcement in digital markets. Despite the fact that antitrust settlements are usually recognized as a simple agreement between antitrust agencies and the pursued companies, this simple agreement, as we have seen through the paper, can affect not only the company subjected to the antitrust investigation, but also markets (including consumers) as a whole by encouraging competition and innovation.

---

<sup>43</sup> See Daniel L. Rubinfeld, *Antitrust Enforcement in Dynamic Network Industries*, 43 ANTITRUST BULL. 859, 860 (1998). Daniel J. Gifford & Robert T. Kudrle, *Antitrust Approaches to Dynamically Competitive Industries in the United States and the European Union* 7 J. COMP. L. & ECON. 695, 700 (2011).

# **DIRITTO MERCATO TECNOLOGIA**

Numeri Speciali

2016      **LO STATO ETICO GIURIDICO DEI CAMPIONI BIOLOGICI UMANI**  
a cura di Dario Farace



La rivista “Diritto Mercato Tecnologia” intende fornire un costante supporto di aggiornamento agli studiosi e agli operatori professionali nel nuovo scenario socio-economico originato dall’interrelazione tra diritto, mercato e tecnologia, in prospettiva interdisciplinare e comparatistica. A tal fine approfondisce, attraverso studi nei settori privatistici e comparatistici, tematiche afferenti in particolare alla proprietà intellettuale, al diritto antitrust e della concorrenza, alle pratiche commerciali e alla tutela dei consumatori, al biodiritto e alle biotecnologie, al diritto delle comunicazioni elettroniche, ai diritti della persona e alle responsabilità in rete.

