Session 2: Intellectual Property

We will discuss the leading varieties of intellectual property such as copyright, trade secrets, trademarks, the right of publicity and patents. In the U.S., intellectual property law is a mix of state and federal law and federal law is founded upon Article I, Section 8, Clause 8 of the U.S. Constitution: "The Congress shall have the Power . . . . [t]o promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries; … ."

Each of these areas has important live issues right now and we will try to touch on each of these in class. We will start by reading a 2015 decision that shows the ways in which technological changes can create new business opportuntieis and then we will look an important 2014 U.S. Supreme Court patent case, *Alice Corp. Pty. Ltd. v. CLS Bank International.*

Authors Guild v. Google, Inc.

804 F.3d 202 (2nd Cir. 2015)

LEVAL, Circuit Judge: This copyright dispute tests the boundaries of fair use. Plaintiffs, who are authors of published books under copyright, sued Google, Inc. ("Google") for copyright infringement in the United States District Court for the Southern District of New York (Chin, J.). They appeal from the grant of summary judgment in Google's favor. Through its Library Project and its Google Books project, acting without permission of rights holders, Google has made digital copies of tens of millions of books, including Plaintiffs', that were submitted to it for that purpose by major libraries. Google has scanned the digital copies and established a publicly available search function. An Internet user can use this function to search without charge to determine whether the book contains a specified word or term and also see "snippets" of text containing the searched-for terms. In addition, Google has allowed the participating libraries to download and retain digital copies of the books they submit, under agreements which commit the libraries not to use their digital copies in violation of the copyright laws. These activities of Google are alleged to constitute infringement of Plaintiffs' copyrights. Plaintiffs sought injunctive and declaratory relief as well as damages.

Google defended on the ground that its actions constitute "fair use," which, under 17 U.S.C. § 107, is "not an infringement." The district court agreed. *Authors Guild, Inc. v. Google Inc.*, 954 F.Supp.2d 282, 294 (S.D.N.Y. 2013). Plaintiffs brought this appeal.

Plaintiffs contend the district court's ruling was flawed in several respects. They argue: (1) Google's digital copying of entire books, allowing users through the snippet function to read portions, is not a "transformative use" within the meaning of *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 578-585 (1994), and provides a substitute for Plaintiffs' works; (2) notwithstanding that Google provides public access to the search and snippet functions without charge and without advertising, its ultimate commercial profit motivation and its derivation of revenue from its dominance of the world-wide Internet search market to which the books project contributes, preclude a finding of fair use; (3) even if Google's copying and revelations of text do not infringe plaintiffs' books, they infringe Plaintiffs' derivative rights in search functions, depriving Plaintiffs of revenues or other benefits they would gain from licensed search markets; (4) Google's storage of digital copies exposes

Plaintiffs to the risk that hackers will make their books freely (or cheaply) available on the Internet, destroying the value of their copyrights; and (5) Google's distribution of digital copies to participant libraries is not a transformative use, and it subjects Plaintiffs to the risk of loss of copyright revenues through access allowed by libraries. We reject these arguments and conclude that the district court correctly sustained Google's fair use defense.

Google's making of a digital copy to provide a search function is a transformative use, which augments public knowledge by making available information about Plaintiffs' books without providing the public with a substantial substitute for matter protected by the Plaintiffs' copyright interests in the original works or derivatives of them. The same is true, at least under present conditions, of Google's provision of the snippet function. Plaintiffs' contention that Google has usurped their opportunity to access paid and unpaid licensing markets for substantially the same functions that Google provides fails, in part because the licensing markets in fact involve very different functions than those that Google provides, and in part because an author's derivative rights do not include an exclusive right to supply information (of the sort provided by Google) about her works. Google's profit motivation does not in these circumstances justify denial of fair use. Google's program does not, at this time and on the record before us, expose Plaintiffs to an unreasonable risk of loss of copyright value through incursions of hackers. Finally, Google's provision of digital copies to participating libraries, authorizing them to make non-infringing uses, is non-infringing, and the mere speculative possibility that the libraries might allow use of their copies in an infringing manner does not make Google a contributory infringer. Plaintiffs have failed to show a material issue of fact in dispute.

We affirm the judgment.

BACKGROUND

I. Plaintiffs

The author-plaintiffs are Jim Bouton, author of *Ball Four*; Betty Miles, author of *The Trouble with Thirteen*; and Joseph Goulden, author of *The Superlawyers: The Small and Powerful World of the Great Washington Law Firms*. Each of them has a legal or beneficial ownership in the copyright for his or her book. Their books have been scanned without their permission by Google, which made them available to Internet users for search and snippet view on Google's website.

II. Google Books and the Google Library Project

Google's Library Project, which began in 2004, involves bi-lateral agreements between Google and a number of the world's major research libraries. Under these agreements, the participating libraries select books from their collections to submit to Google for inclusion in the project. Google makes a digital scan of each book, extracts a machine-readable text, and creates an index of the machine-readable text of each book. Google retains the original scanned image of each book, in part so as to improve the accuracy of the machine-readable texts and indices as image-to-text conversion technologies improve.

Since 2004, Google has scanned, rendered machine-readable, and indexed more than 20 million books, including both copyrighted works and works in the public domain. The vast

majority of the books are non-fiction, and most are out of print. All of the digital information created by Google in the process is stored on servers protected by the same security systems Google uses to shield its own confidential information.

The digital corpus created by the scanning of these millions of books enables the Google Books search engine. Members of the public who access the Google Books website can enter search words or terms of their own choice, receiving in response a list of all books in the database in which those terms appear, as well as the number of times the term appears in each book. A brief description of each book, entitled "About the Book," gives some rudimentary additional information, including a list of the words and terms that appear with most frequency in the book. It sometimes provides links to buy the book online and identifies libraries where the book can be found. The search tool permits a researcher to identify those books, out of millions, that do, as well as those that do not, use the terms selected by the researcher. Google notes that this identifying information instantaneously supplied would otherwise not be obtainable in lifetimes of searching.

No advertising is displayed to a user of the search function. Nor does Google receive payment by reason of the searcher's use of Google's link to purchase the book.

The search engine also makes possible new forms of research, known as "text mining" and "data mining." Google's "ngrams" research tool draws on the Google Library Project corpus to furnish statistical information to Internet users about the frequency of word and phrase usage over centuries. This tool permits users to discern fluctuations of interest in a particular subject over time and space by showing increases and decreases in the frequency of reference and usage in different periods and different linguistic regions. It also allows researchers to comb over the tens of millions of books Google has scanned in order to examine "word frequencies, syntactic patterns, and thematic markers" and to derive information on how nomenclature, linguistic usage, and literary style have changed over time. *Authors Guild, Inc.*, 954 F.Supp.2d at 287. The district court gave as an example "track[ing] the frequency of references to the United States as a single entity ('the United States is') versus references to the United States in the plural ('the United States are') and how that usage has changed over time." Id.

The Google Books search function also allows the user a limited viewing of text. In addition to telling the number of times the word or term selected by the searcher appears in the book, the search function will display a maximum of three "snippets" containing it. A snippet is a horizontal segment comprising ordinarily an eighth of a page. Each page of a conventionally formatted book in the Google Books database is divided into eight non-overlapping horizontal segments, each such horizontal segment being a snippet. (Thus, for such a book with 24 lines to a page, each snippet is comprised of three lines of text.) Each search for a particular word or term within a book will reveal the same three snippets, regardless of the number of computers from which the search is launched. Only the first usage of the term on a given page is displayed. Thus, if the top snippet of a page contains two (or more) words for which the user searches, and Google's program is fixed to reveal that particular snippet in response to a search for either term, the second search will duplicate the snippet already revealed by the first search, rather than moving to reveal a different snippet containing the word because the first snippet was already revealed. Google's program does not allow a searcher to increase the number of snippets revealed by repeated entry of the same search term or by entering searches from different computers. A searcher

can view more than three snippets of a book by entering additional searches for different terms. However, Google makes permanently unavailable for snippet view one snippet on each page and one complete page out of every ten—a process Google calls "blacklisting."

Google also disables snippet view entirely for types of books for which a single snippet is likely to satisfy the searcher's present need for the book, such as dictionaries, cookbooks, and books of short poems. Finally, since 2005, Google will exclude any book altogether from snippet view at the request of the rights holder by the submission of an online form.

Under its contracts with the participating libraries, Google allows each library to download copies—of both the digital image and machine-readable versions—of the books that library submitted to Google for scanning (but not of books submitted by other libraries). This is done by giving each participating library access to the Google Return Interface ("GRIN"). The agreements between Google and the libraries, although not in all respects uniform, require the libraries to abide by copyright law in utilizing the digital copies they download and to take precautions to prevent dissemination of their digital copies to the public at large. Through the GRIN facility, participant libraries have downloaded at least 2.7 million digital copies of their own volumes.

III. Procedural History

*** On November 14, 2013, the district court granted Google's motion for summary judgment, concluding that the uses made by Google of copyrighted books were fair uses, protected by § 107. *Authors Guild*, 954 F.Supp.2d at 284. Upon consideration of the four statutory factors of § 107, the district court found that Google's uses were transformative, that its display of copyrighted material was properly limited, and that the Google Books program did not impermissibly serve as a market substitute for the original works. Id. at 290. The court entered judgment initially on November 27, 2013, followed by an amended judgment on December 10, 2013, dismissing Plaintiffs' claims with prejudice. Plaintiffs filed timely notice of appeal.

DISCUSSION

I. The Law of Fair Use

The ultimate goal of copyright is to expand public knowledge and understanding, which copyright seeks to achieve by giving potential creators exclusive control over copying of their works, thus giving them a financial incentive to create informative, intellectually enriching works for public consumption. This objective is clearly reflected in the Constitution's empowerment of Congress "*To promote the Progress of Science* ... by securing for limited Times to Authors ... the exclusive Right to their respective Writings." U.S. Const., Art. I, § 8, cl. 8 (emphasis added). Thus, while authors are undoubtedly important intended beneficiaries of copyright, the ultimate, primary intended beneficiary is the public, whose access to knowledge copyright seeks to advance by providing rewards for authorship.

For nearly three hundred years, since shortly after the birth of copyright in England in 1710, courts have recognized that, in certain circumstances, giving authorsabsolute control over all copying from their works would tend in some circumstances to limit, rather than expand, public knowledge. In the words of Lord Ellenborough, "[W]hile I shall think my-

self bound to secure every man in the enjoyment of his copy-right, one must not put manacles upon science." *Cary v. Kearsley*, Cary v. Kearsley, 170 Eng. Rep. 679, 681(1802). Courts thus developed the doctrine, eventually named fair use, which permits unauthorized copying in some circumstances, so as to further "copyright's very purpose, '[t]o promote the Progress of Science and useful Arts.'" *Campbell v. Acuff-Rose Music, Inc.*, Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 575 (1994) (quoting U.S. Const., Art. I, § 8, cl. 8). Although well established in the common law development of copyright, fair use was not recognized in the terms of our statute until the adoption of § 107 in the Copyright Act of 1976. 17 U.S.C. §§ 101 et seq.

Section 107, in its present form, provides:

> [T]he fair use of a copyrighted work ... for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include —
>
> (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
>
> (2) the nature of the copyrighted work;
>
> (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
>
> (4) the effect of the use upon the potential market for or value of the copyrighted work.
>
> The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors.

17 U.S.C. § 107. As the Supreme Court has designated fair use an affirmative defense, see *Campbell*, 510 U.S. at 590, the party asserting fair use bears the burden of proof, *Am. Geophysical Union v. Texaco Inc.*, 60 F.3d 913, 918 (2nd Cir. 1994). ***

The *Campbell* Court undertook a comprehensive analysis of fair use's requirements, discussing every segment of § 107. Beginning with the examples of purposes set forth in the statute's preamble, the Court made clear that they are "illustrative and not limitative" and "provide only general guidance about the sorts of copying that courts and Congress most commonly ha[ve] found to be fair uses." 510 U.S. at 577-578 (internal quotations and citations omitted). The statute "calls for case-by-case analysis" and "is not to be simplified with bright-line rules." Id. at 577. Section 107's four factors are not to "be treated in isolation, one from another. All are to be explored, and the results weighed together, in light of the purposes of copyright." Id. at 578. Each factor thus stands as part of a multifaceted assessment of the crucial question: how to define the boundary limit of the original author's exclusive rights in order to best serve the overall objectives of the copyright law to expand public learning while protecting the incentives of authors to create for the public good.

At the same time, the Supreme Court has made clear that some of the statute's four listed factors are more significant than others. The Court observed in *Harper & Row Publishers, Inc. v. Nation Enterprises* that the fourth factor, which assesses the harm the secondary use can cause to the market for, or the value of, the copyright for the original, "is undoubtedly the single most important element of fair use." 471 U.S. 539, 566 (1985). This is consistent

with the fact that the copyright is a commercial right, intended to protect the ability of authors to profit from the exclusive right to merchandise their own work.

In *Campbell*, the Court stressed also the importance of the first factor, the "purpose and character of the secondary use." 17 U.S.C. § 107(1). The more the appropriator is using the copied material for new, transformative purposes, the more it serves copyright's goal of enriching public knowledge and the less likely it is that the appropriation will serve as a substitute for the original or its plausible derivatives, shrinking the protected market opportunities of the copyrighted work. 510 U.S. at 591 (noting that, when the secondary use is transformative, "market substitution is at least less certain, and market harm may not be so readily inferred.").

With this background, we proceed to discuss each of the statutory factors, as illuminated by *Campbell* and subsequent case law, in relation to the issues here in dispute.

II. The Search and Snippet View Functions

A. Factor One

(1) Transformative purpose. *Campbell's* explanation of the first factor's inquiry into the "purpose and character" of the secondary use focuses on whether the new work, "in Justice Story's words, ... merely 'supersede[s] the objects' of the original creation, ... or instead adds something new, with a further purpose.... [I]t asks, in other words, whether and to what extent the new work is 'transformative.'" 510 U.S. at 578-579 (citations omitted). While recognizing that a transformative use is "not absolutely necessary for a finding of fair use," the opinion further explains that the "goal of copyright, to promote science and the arts, is generally furthered by the creation of transformative works" and that "[s]uch works thus lie at the heart of the fair use doctrine's guarantee of breathing space within the confines of copyright." Id. at 579. In other words, transformative uses tend to favor a fair use finding because a transformative use is one that communicates something new and different from the original or expands its utility, thus serving copyright's overall objective of contributing to public knowledge.

The word "transformative" cannot be taken too literally as a sufficient key to understanding the elements of fair use. It is rather a suggestive symbol for a complex thought, and does not mean that any and all changes made to an author's original text will necessarily support a finding of fair use. The Supreme Court's discussion in *Campbell* gave important guidance on assessing when a transformative use tends to support a conclusion of fair use. The defendant in that case defended on the ground that its work was a parody of the original and that parody is a time-honored category of fair use. Explaining why parody makes a stronger, or in any event more obvious, claim of fair use than satire, the Court stated,

> [T]he heart of any parodist's claim to quote from existing material ... is the use of ... a prior author's composition to ... *comment[] on that author's works*.... If, on the contrary, the commentary has no critical bearing on the substance or style of the original composition, which the alleged infringer merely uses to get attention or to avoid the drudgery in working up something fresh, the claim to fairness in borrowing from another's work diminishes accordingly (if it does not vanish).... Parody needs to mimic an original to make its point, and so has some claim to use the

> creation of its victim's ... imagination, whereas satire can stand on its own two feet and so requires justification for the very act of borrowing.

Id. at 580-81 (emphasis added). In other words, the would-be fair user of another's work must have justification for the taking. A secondary author is not necessarily at liberty to make wholesale takings of the original author's expression merely because of how well the original author's expression would convey the secondary author's different message. Among the best recognized justifications for copying from another's work is to provide comment on it or criticism of it. A taking from another author's work for the purpose of making points that have no bearing on the original may well be fair use, but the taker would need to show a justification. This part of the Supreme Court's discussion is significant in assessing Google's claim of fair use because, as discussed extensively below, Google's claim of transformative purpose for copying from the works of others is to provide otherwise unavailable information about the originals.

A further complication that can result from oversimplified reliance on whether the copying involves transformation is that the word "transform" also plays a role in defining "derivative works," over which the original rights holder retains exclusive control. Section 106 of the Act specifies the "exclusive right[]" of the copyright owner "(2) to prepare derivative works based upon the copyrighted work." See 17 U.S.C. § 106. The statute defines derivative works largely by example, rather than explanation. The examples include "translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgement, condensation," to which list the statute adds "any other form in which a work may be ... *transformed*." 17 U.S.C. § 101 (emphasis added).[15] As we noted in *Authors Guild, Inc. v. HathiTrust*, "[p]aradigmatic examples of derivative works include the translation of a novel into another language, the adaptation of a novel into a movie or play, or the recasting of a novel as an e-book or an audiobook." 755 F.3d 87, 95 (2nd Cir. 2014). While such changes can be described as transformations, they do not involve the kind of transformative purpose that favors a fair use finding. The statutory definition suggests that derivative works generally involve transformations in the nature of changes of form. 17 U.S.C. § 101. By contrast, copying from an original for the purpose of criticism or commentary on the original or provision of information about it, tends most clearly to satisfy *Campbell's* notion of the "transformative" purpose involved in the analysis of Factor One.

With these considerations in mind, we first consider whether Google's search and snippet views functions satisfy the first fair use factor with respect to Plaintiffs' rights in their books. (The question whether these functions might infringe upon Plaintiffs' derivative rights is discussed in the next Part.)

(2) Search Function. We have no difficulty concluding that Google's making of a digital copy of Plaintiffs' books for the purpose of enabling a search for identification of books containing a term of interest to the searcher involves a highly transformative purpose, in the sense intended by *Campbell*. Our court's exemplary discussion in *HathiTrust* informs

---

[15] The full text of the statutory definition is as follows: "A 'derivative work' is a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgement, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions, annotations, elaborations, or other modifications which, as a whole, represent an original work of authorship, is a 'derivative work.'" 17 U.S.C. § 101.

our ruling. That case involved a dispute that is closely related, although not identical, to this one. Authors brought claims of copyright infringement against HathiTrust, an entity formed by libraries participating in the Google Library Project to pool the digital copies of their books created for them by Google. The suit challenged various usages HathiTrust made of the digital copies. Among the challenged uses was HathiTrust's offer to its patrons of "full-text searches," which, very much like the search offered by Google Books to Internet users, permitted patrons of the libraries to locate in which of the digitized books specific words or phrases appeared. 755 F.3d at 98. (HathiTrust's search facility did not include the snippet view function, or any other display of text.) We concluded that both the making of the digital copies and the use of those copies to offer the search tool were fair uses. Id. at 105.

Notwithstanding that the libraries had downloaded and stored complete digital copies of entire books, we noted that such copying was essential to permit searchers to identify and locate the books in which words or phrases of interest to them appeared. Id. at 97. We concluded "that the creation of a full-text searchable database is a quintessentially transformative use ... [as] the result of a word search is different in purpose, character, expression, meaning, and message from the page (and the book) from which it is drawn." Id.

As with *HathiTrust* ***, the purpose of Google's copying of the original copyrighted books is to make available significant information about those books, permitting a searcher to identify those that contain a word or term of interest, as well as those that do not include reference to it. In addition, through the ngrams tool, Google allows readers to learn the frequency of usage of selected words in the aggregate corpus of published books in different historical periods. We have no doubt that the purpose of this copying is the sort of transformative purpose described in Campbell as strongly favoring satisfaction of the first factor.

We recognize that our case differs from *HathiTrust* in two potentially significant respects. First, HathiTrust did not "display to the user any text from the underlying copyrighted work," 755 F.3d at 91, whereas Google Books provides the searcher with snippets containing the word that is the subject of the search. Second, HathiTrust was a nonprofit educational entity, while Google is a profit-motivated commercial corporation. We discuss those differences below.

(3) Snippet View. Plaintiffs correctly point out that this case is significantly different from *HathiTrust* in that the Google Books search function allows searchers to read snippets from the book searched, whereas HathiTrust did not allow searchers to view any part of the book. Snippet view adds important value to the basic transformative search function, which tells only whether and how often the searched term appears in the book. Merely knowing that a term of interest appears in a book does not necessarily tell the searcher whether she needs to obtain the book, because it does not reveal whether the term is discussed in a manner or context falling within the scope of the searcher's interest. For example, a searcher seeking books that explore Einstein's theories, who finds that a particular book includes 39 usages of "Einstein," will nonetheless conclude she can skip that book if the snippets reveal that the book speaks of "Einstein" because that is the name of the author's cat. In contrast, the snippet will tell the searcher that this is a book she needs to obtain if the snippet shows that the author is engaging with Einstein's theories.

Google's division of the page into tiny snippets is designed to show the searcher just enough context surrounding the searched term to help her evaluate whether the book falls within the scope of her interest (without revealing so much as to threaten the author's copyright interests). Snippet view thus adds importantly to the highly transformative purpose of identifying books of interest to the searcher. With respect to the first factor test, it favors a finding of fair use (unless the value of its transformative purpose is overcome by its providing text in a manner that offers a competing substitute for Plaintiffs' books, which we discuss under factors three and four below).

(4) Google's Commercial Motivation. Plaintiffs also contend that Google's commercial motivation weighs in their favor under the first factor. Google's commercial motivation distinguishes this case from HathiTrust, as the defendant in that case was a non-profit entity founded by, and acting as the representative of, libraries. Although Google has no revenues flowing directly from its operation of the Google Books functions, Plaintiffs stress that Google is profit-motivated and seeks to use its dominance of book search to fortify its overall dominance of the Internet search market, and that thereby Google indirectly reaps profits from the Google Books functions.

For these arguments Plaintiffs rely primarily on two sources. First is Congress's specification in spelling out the first fair use factor in the text of § 107 that consideration of the "purpose and character of the [secondary] use" should "include[e] whether such use is of a commercial nature or is for nonprofit educational purposes." Second is the Supreme Court's assertion in dictum in *Sony Corporation of America v. Universal City Studios, Inc*, that "every commercial use of copyrighted material is presumptively ... unfair." 464 U.S. 417, 451 (1984). If that were the extent of precedential authority on the relevance of commercial motivation, Plaintiffs' arguments would muster impressive support. However, while the commercial motivation of the secondary use can undoubtedly weigh against a finding of fair use in some circumstances, the Supreme Court, our court, and others have eventually recognized that the *Sony* dictum was enormously overstated. ***

Our court has since repeatedly rejected the contention that commercial motivation should outweigh a convincing transformative purpose and absence of significant substitutive competition with the original. See *Cariou v. Prince*, 714 F.3d 694, 708 (2nd Cir. 2013), ("The commercial/nonprofit dichotomy concerns the unfairness that arises when a secondary user makes unauthorized use of copyrighted material to capture significant revenues as a direct consequence of copying the original work. This factor must be applied with caution because, as the Supreme Court has recognized, Congress could not have intended a rule that commercial uses are presumptively unfair. Instead, the more transformative the new work, the less will be the significance of other factors, like commercialism, that may weigh against a finding of fair use.") (internal quotation marks, citations, and alterations omitted).

While we recognize that in some circumstances, a commercial motivation on the part of the secondary user will weigh against her, especially, as the Supreme Court suggested, when a persuasive transformative purpose is lacking, *Campbell*, 510 U.S. at 579, we see no reason in this case why Google's overall profit motivation should prevail as a reason for denying fair use over its highly convincing transformative purpose, together with the absence of significant substitutive competition, as reasons for granting fair use. Many of the most universally accepted forms of fair use, such as news reporting and commentary, quotation

in historical or analytic books, reviews of books, and performances, as well as parody, are all normally done commercially for profit.[20]

B. Factor Two

The second fair use factor directs consideration of the "nature of the copyrighted work." While the "transformative purpose" inquiry discussed above is conventionally treated as a part of first factor analysis, it inevitably involves the second factor as well. One cannot assess whether the copying work has an objective that differs from the original without considering both works, and their respective objectives.

The second factor has rarely played a significant role in the determination of a fair use dispute. The Supreme Court in *Harper & Row* made a passing observation in dictum that, "[t]he law generally recognizes a greater need to disseminate factual works than works of fiction or fantasy." 471 U.S. 539, 563 (1985). Courts have sometimes speculated that this might mean that a finding of fair use is more favored when the copying is of factual works than when copying is from works of fiction. However, while the copyright does not protect facts or ideas set forth in a work, it does protect that author's manner of expressing those facts and ideas. At least unless a persuasive fair use justification is involved, authors of factual works, like authors of fiction, should be entitled to copyright protection of their protected expression. The mere fact that the original is a factual work therefore should not imply that others may freely copy it. Those who report the news undoubtedly create factual works. It cannot seriously be argued that, for that reason, others may freely copy and re-disseminate news reports.

In considering the second factor in *HathiTrust*, we concluded that it was "not dispositive," 755 F.3d at 98, commenting that courts have hardly ever found that the second factor in isolation played a large role in explaining a fair use decision. The same is true here. While each of the three Plaintiffs' books in this case is factual, we do not consider that as a boost to Google's claim of fair use. If one (or all) of the plaintiff works were fiction, we do not think that would change in any way our appraisal. Nothing in this case influences us one way or the other with respect to the second factor considered in isolation. To the extent that the "nature" of the original copyrighted work necessarily combines with the "purpose and character" of the secondary work to permit assessment of whether the secondary work uses the original in a "transformative" manner, as the term is used in *Campbell*, the second factor favors fair use not because Plaintiffs' works are factual, but because the secondary use transformatively provides valuable information about the original, rather than replicating protected expression in a manner that provides a meaningful substitute for the original.

[20] Just as there is no reason for presuming that a commercial use is not a fair use, which would defeat the most widely accepted and logically justified areas of fair use, there is likewise no reason to presume categorically that a nonprofit educational purpose should qualify as a fair use. Authors who write for educational purposes, and publishers who invest substantial funds to publish educational materials, would lose the ability to earn revenues if users were permitted to copy the materials freely merely because such copying was in the service of a nonprofit educational mission. The publication of educational materials would be substantially curtailed if such publications could be freely copied for non-profit educational purposes.

C. Factor Three

The third statutory factor instructs us to consider "the amount and substantiality of the portion used in relation to the copyrighted work as a whole." The clear implication of the third factor is that a finding of fair use is more likely when small amounts, or less important passages, are copied than when the copying is extensive, or encompasses the most important parts of the original. The obvious reason for this lies in the relationship between the third and the fourth factors. The larger the amount, or the more important the part, of the original that is copied, the greater the likelihood that the secondary work might serve as an effectively competing substitute for the original, and might therefore diminish the original rights holder's sales and profits.

(1) Search Function. The Google Books program has made a digital copy of the entirety of each of Plaintiffs' books. Notwithstanding the reasonable implication of Factor Three that fair use is more likely to be favored by the copying of smaller, rather than larger, portions of the original, courts have rejected any categorical rule that a copying of the entirety cannot be a fair use. Complete unchanged copying has repeatedly been found justified as fair use when the copying was reasonably appropriate to achieve the copier's transformative purpose and was done in such a manner that it did not offer a competing substitute for the original. The Supreme Court said in *Campbell* that "the extent of permissible copying varies with the purpose and character of the use" and characterized the relevant questions as whether "the amount and substantiality of the portion used ... are reasonable in relation to the purpose of the copying," Campbell, 510 U.S. at 586-587, noting that the answer to that question will be affected by "the degree to which the [copying work] may serve as a market substitute for the original or potentially licensed derivatives," id. at 587-588 (finding that, in the case of a parodic song, "how much ... is reasonable will depend, say, on the extent to which the song's overriding purpose and character is to parody the original or, in contrast, the likelihood that the parody may serve as a market substitute for the original").

In *HathiTrust*, our court concluded in its discussion of the third factor that "[b]ecause it was reasonably necessary for the [HathiTrust Digital Library] to make use of the entirety of the works in order to enable the full-text search function, we do not believe the copying was excessive." 755 F.3d at 98. As with *HathiTrust*, not only is the copying of the totality of the original reasonably appropriate to Google's transformative purpose, it is literally necessary to achieve that purpose. If Google copied less than the totality of the originals, its search function could not advise searchers reliably whether their searched term appears in a book (or how many times).

While Google makes an unauthorized digital copy of the entire book, it does not reveal that digital copy to the public. The copy is made to enable the search functions to reveal limited, important information about the books. With respect to the search function, Google satisfies the third factor test, as illuminated by the Supreme Court in *Campbell*.

(2) Snippet View. Google's provision of snippet view makes our third factor inquiry different from that inquiry in *HathiTrust*. What matters in such cases is not so much "the amount and substantiality of the portion used" in making a copy, but rather the amount and substantiality of what is thereby made accessible to a public for which it may serve as a competing substitute. In *HathiTrust*, notwithstanding the defendant's full-text copying,

the search function revealed virtually nothing of the text of the originals to the public. Here, through the snippet view, more is revealed to searchers than in *HathiTrust*.

Without doubt, enabling searchers to see portions of the copied texts could have determinative effect on the fair use analysis. The larger the quantity of the copyrighted text the searcher can see and the more control the searcher can exercise over what part of the text she sees, the greater the likelihood that those revelations could serve her as an effective, free substitute for the purchase of the plaintiff's book. We nonetheless conclude that, at least as presently structured by Google, the snippet view does not reveal matter that offers the marketplace a significantly competing substitute for the copyrighted work.

Google has constructed the snippet feature in a manner that substantially protects against its serving as an effectively competing substitute for Plaintiffs' books. In the Background section of this opinion, we describe a variety of limitations Google imposes on the snippet function. These include the small size of the snippets (normally one eighth of a page), the blacklisting of one snippet per page and of one page in every ten, the fact that no more than three snippets are shown—and no more than one per page—for each term searched, and the fact that the same snippets are shown for a searched term no matter how many times, or from how many different computers, the term is searched. In addition, Google does not provide snippet view for types of books, such as dictionaries and cookbooks, for which viewing a small segment is likely to satisfy the searcher's need. The result of these restrictions is, so far as the record demonstrates, that a searcher cannot succeed, even after long extended effort to multiply what can be revealed, in revealing through a snippet search what could usefully serve as a competing substitute for the original.

The blacklisting, which permanently blocks about 22% of a book's text from snippet view, is by no means the most important of the obstacles Google has designed. While it is true that the blacklisting of 22% leaves 78% of a book theoretically accessible to a searcher, it does not follow that any large part of that 78% is in fact accessible. The other restrictions built into the program work together to ensure that, even after protracted effort over a substantial period of time, only small and randomly scattered portions of a book will be accessible. In an effort to show what large portions of text searchers can read through persistently augmented snippet searches, Plaintiffs' counsel employed researchers over a period of weeks to do multiple word searches on Plaintiffs' books. In no case were they able to access as much as 16% of the text, and the snippets collected were usually not sequential but scattered randomly throughout the book. Because Google's snippets are arbitrarily and uniformly divided by lines of text, and not by complete sentences, paragraphs, or any measure dictated by content, a searcher would have great difficulty constructing a search so as to provide any extensive information about the book's use of that term. As snippet view never reveals more than one snippet per page in response to repeated searches for the same term, it is at least difficult, and often impossible, for a searcher to gain access to more than a single snippet's worth of an extended, continuous discussion of the term.

The fact that Plaintiffs' searchers managed to reveal nearly 16% of the text of Plaintiffs' books overstates the degree to which snippet view can provide a meaningful substitute. At least as important as the percentage of words of a book that are revealed is the manner and order in which they are revealed. Even if the search function revealed 100% of the words of the copyrighted book, this would be of little substitutive value if the words were

revealed in alphabetical order, or any order other than the order they follow in the original book. It cannot be said that a revelation is "substantial" in the sense intended by the statute's third factor if the revelation is in a form that communicates little of the sense of the original. The fragmentary and scattered nature of the snippets revealed, even after a determined, assiduous, time-consuming search, results in a revelation that is not "substantial," even if it includes an aggregate 16% of the text of the book. If snippet view could be used to reveal a coherent block amounting to 16% of a book, that would raise a very different question beyond the scope of our inquiry.

D. Factor Four

The fourth fair use factor, "the effect of the [copying] use upon the potential market for or value of the copyrighted work," focuses on whether the copy brings to the marketplace a competing substitute for the original, or its derivative, so as to deprive the rights holder of significant revenues because of the likelihood that potential purchasers may opt to acquire the copy in preference to the original. Because copyright is a commercial doctrine whose objective is to stimulate creativity among potential authors by enabling them to earn money from their creations, the fourth factor is of great importance in making a fair use assessment.See *Harper & Row*, 471 U.S. at 566 (describing the fourth factor as "undoubtedly the single most important element of fair use").

Campbell stressed the close linkage between the first and fourth factors, in that the more the copying is done to achieve a purpose that differs from the purpose of the original, the less likely it is that the copy will serve as a satisfactory substitute for the original. 510 U.S. at 591. Consistent with that observation, the *HathiTrust* court found that the fourth factor favored the defendant and supported a finding of fair use because the ability to search the text of the book to determine whether it includes selected words "does not serve as a substitute for the books that are being searched." 755 F.3d at 100.

However, *Campbell*'s observation as to the likelihood of a secondary use serving as an effective substitute goes only so far. Even if the purpose of the copying is for a valuably transformative purpose, such copying might nonetheless harm the value of the copyrighted original if done in a manner that results in widespread revelation of sufficiently significant portions of the original as to make available a significantly competing substitute. The question for us is whether snippet view, notwithstanding its transformative purpose, does that. We conclude that, at least as snippet view is presently constructed, it does not.

Especially in view of the fact that the normal purchase price of a book is relatively low in relation to the cost of manpower needed to secure an arbitrary assortment of randomly scattered snippets, we conclude that the snippet function does not give searchers access to effectively competing substitutes. Snippet view, at best and after a large commitment of manpower, produces discontinuous, tiny fragments, amounting in the aggregate to no more than 16% of a book. This does not threaten the rights holders with any significant harm to the value of their copyrights or diminish their harvest of copyright revenue.

We recognize that the snippet function can cause some loss of sales. There are surely instances in which a searcher's need for access to a text will be satisfied by the snippet view, resulting in either the loss of a sale to that searcher, or reduction of demand on libraries for that title, which might have resulted in libraries purchasing additional copies. But the possibility, or even the probability or certainty, of some loss of sales does not

suffice to make the copy an effectively competing substitute that would tilt the weighty fourth factor in favor of the rights holder in the original. There must be a meaningful or significant effect "upon the potential market for or value of the copyrighted work." 17 U.S.C. § 107(4).

Furthermore, the type of loss of sale envisioned above will generally occur in relation to interests that are not protected by the copyright. A snippet's capacity to satisfy a searcher's need for access to a copyrighted book will at times be because the snippet conveys a historical fact that the searcher needs to ascertain. For example, a student writing a paper on Franklin D. Roosevelt might need to learn the year Roosevelt was stricken with polio. By entering "Roosevelt polio" in a Google Books search, the student would be taken to (among numerous sites) a snippet from page 31 of Richard Thayer Goldberg's *The Making of Franklin D. Roosevelt* (1981), telling that the polio attack occurred in 1921. This would satisfy the searcher's need for the book, eliminating any need to purchase it or acquire it from a library. But what the searcher derived from the snippet was a historical fact. Author Goldberg's copyright does not extend to the facts communicated by his book. It protects only the author's manner of expression. Google would be entitled, without infringement of Goldberg's copyright, to answer the student's query about the year Roosevelt was afflicted, taking the information from Goldberg's book. The fact that, in the case of the student's snippet search, the information came embedded in three lines of Goldberg's writing, which were superfluous to the searcher's needs, would not change the taking of an unprotected fact into a copyright infringement.

Even if the snippet reveals some authorial expression, because of the brevity of a single snippet and the cumbersome, disjointed, and incomplete nature of the aggregation of snippets made available through snippet view, we think it would be a rare case in which the searcher's interest in the protected aspect of the author's work would be satisfied by what is available from snippet view, and rarer still—because of the cumbersome, disjointed, and incomplete nature of the aggregation of snippets made available through snippet view—that snippet view could provide a significant substitute for the purchase of the author's book.

Accordingly, considering the four fair use factors in light of the goals of copyright, we conclude that Google's making of a complete digital copy of Plaintiffs' works for the purpose of providing the public with its search and snippet view functions (at least as snippet view is presently designed) is a fair use and does not infringe Plaintiffs' copyrights in their books.

Alice Corp. Pty. Ltd. v. CLS Bank International

134 S.Ct. 2347 (2014)

Justice THOMAS delivered the opinion of the Court: The patents at issue in this case disclose a computer-implemented scheme for mitigating "settlement risk" (*i.e.*, the risk that only one party to a financial transaction will pay what it owes) by using a third-party intermediary. The question presented is whether these claims are patent eligible under 35 U.S.C. § 101, or are instead drawn to a patent-ineligible abstract idea. We hold that the claims at issue are drawn to the abstract idea of intermediated settlement, and that merely requiring generic computer implementation fails to transform that abstract idea into a patent-eligible invention. We therefore affirm the judgment of the United States Court of Appeals for the Federal Circuit.

I

A

Petitioner Alice Corporation is the assignee of several patents that disclose schemes to manage certain forms of financial risk.[1] According to the specification largely shared by the patents, the invention "enabl[es] the management of risk relating to specified, yet unknown, future events." App. 248. The specification further explains that the "invention relates to methods and apparatus, including electrical computers and data processing systems applied to financial matters and risk management." *Id.*, at 243.

The claims at issue relate to a computerized scheme for mitigating "settlement risk"—*i.e.*, the risk that only one party to an agreed-upon financial exchange will satisfy its obligation. In particular, the claims are designed to facilitate the exchange of financial obligations between two parties by using a computer system as a third-party intermediary. *Id.*, at 383-384.[2] The intermediary creates "shadow" credit and debit records (*i.e.*, account ledgers) that mirror the balances in the parties' real-world accounts at "exchange institutions" (*e.g.*,

---

[1] The patents at issue are United States Patent Nos. 5,970,479 (the '479 patent), 6,912,510, 7,149,720, and 7,725,375.

[2] The parties agree that claim 33 of the '479 patent is representative of the method claims. Claim 33 recites:

"A method of exchanging obligations as between parties, each party holding a credit record and a debit record with an exchange institution, the credit records and debit records for exchange of predetermined obligations, the method comprising the steps of:

"(a) creating a shadow credit record and a shadow debit record for each stakeholder party to be held independently by a supervisory institution from the exchange institutions;

"(b) obtaining from each exchange institution a start-of-day balance for each shadow credit record and shadow debit record;

"(c) for every transaction resulting in an exchange obligation, the supervisory institution adjusting each respective party's shadow credit record or shadow debit record, allowing only these transactions that do not result in the value of the shadow debit record being less than the value of the shadow credit record at any time, each said adjustment taking place in chronological order, and

"(d) at the end-of-day, the supervisory institution instructing on[e] of the exchange institutions to exchange credits or debits to the credit record and debit record of the respective parties in accordance with the adjustments of the said permitted transactions, the credits and debits being irrevocable, time invariant obligations placed on the exchange institutions." App. 383-384.

banks). The intermediary updates the shadow records in real time as transactions are entered, allowing "only those transactions for which the parties' updated shadow records indicate sufficient resources to satisfy their mutual obligations." 717 F.3d 1269, 1285 (C.A.Fed. 2013) (Lourie, J., concurring). At the end of the day, the intermediary instructs the relevant financial institutions to carry out the "permitted" transactions in accordance with the updated shadow records, *ibid.*, thus mitigating the risk that only one party will perform the agreed-upon exchange.

In sum, the patents in suit claim (1) the foregoing method for exchanging obligations (the method claims), (2) a computer system configured to carry out the method for exchanging obligations (the system claims), and (3) a computer-readable medium containing program code for performing the method of exchanging obligations (the media claims). All of the claims are implemented using a computer; the system and media claims expressly recite a computer, and the parties have stipulated that the method claims require a computer as well.

B

Respondents CLS Bank International and CLS Services Ltd. (together, CLS Bank) operate a global network that facilitates currency transactions. In 2007, CLS Bank filed suit against petitioner, seeking a declaratory judgment that the claims at issue are invalid, unenforceable, or not infringed. Petitioner counterclaimed, alleging infringement. Following this Court's decision in *Bilski v. Kappos*, 561 U.S. 593 (2010), the parties filed cross-motions for summary judgment on whether the asserted claims are eligible for patent protection under 35 U.S.C. § 101. The District Court held that all of the claims are patent ineligible because they are directed to the abstract idea of "employing a neutral intermediary to facilitate simultaneous exchange of obligations in order to minimize risk." 768 F.Supp.2d 221, 252 (D.C. 2011).

A divided panel of the United States Court of Appeals for the Federal Circuit reversed, holding that it was not "manifestly evident" that petitioner's claims are directed to an abstract idea. 685 F.3d 1341, 1352, 1356 (2012). The Federal Circuit granted rehearing en banc, vacated the panel opinion, and affirmed the judgment of the District Court in a one-paragraph *per curiam* opinion. 717 F.3d, at 1273. Seven of the ten participating judges agreed that petitioner's method and media claims are patent ineligible. With respect to petitioner's system claims, the en banc Federal Circuit affirmed the District Court's judgment by an equally divided vote.

Writing for a five-member plurality, Judge Lourie concluded that all of the claims at issue are patent ineligible. In the plurality's view, under this Court's decision in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. ___ (2012), a court must first "identif[y] the abstract idea represented in the claim," and then determine "whether the balance of the claim adds 'significantly more.'" 717 F.3d, at 1286. The plurality concluded that petitioner's claims "draw on the abstract idea of reducing settlement risk by effecting trades through a third-party intermediary," and that the use of a computer to maintain, adjust, and reconcile shadow accounts added nothing of substance to that abstract idea. *Ibid.*

Chief Judge Rader concurred in part and dissented in part. In a part of the opinion joined only by Judge Moore, Chief Judge Rader agreed with the plurality that petitioner's method and media claims are drawn to an abstract idea. In a part of the opinion joined by Judges

Linn, Moore, and O'Malley, Chief Judge Rader would have held that the system claims are patent eligible because they involve computer "hardware" that is "specifically programmed to solve a complex problem." Judge Moore wrote a separate opinion dissenting in part, arguing that the system claims are patent eligible. Judge Newman filed an opinion concurring in part and dissenting in part, arguing that all of petitioner's claims are patent eligible. Judges Linn and O'Malley filed a separate dissenting opinion reaching that same conclusion.

We granted certiorari, 571 U.S. ___ (2013), and now affirm.

II

Section 101 of the Patent Act defines the subject matter eligible for patent protection. It provides:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101.

"We have long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable. *Association for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. ___, ___ (2013) (internal quotation marks and brackets omitted). ***

Accordingly, in applying the § 101 exception, we must distinguish between patents that claim the "'buildin[g] block[s]'" of human ingenuity and those that integrate the building blocks into something more, *Mayo*, 566 U.S., at ___, thereby "transform[ing]" them into a patent-eligible invention, *id.*, at ___. The former "would risk disproportionately tying up the use of the underlying" ideas, *id.*, at ___, and are therefore ineligible for patent protection. The latter pose no comparable risk of pre-emption, and therefore remain eligible for the monopoly granted under our patent laws.

III

In *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. ___ (2012) we set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, "[w]hat else is there in the claims before us?" *Id.*, at ___. To answer that question, we consider the elements of each claim both individually and "as an ordered combination" to determine whether the additional elements "transform the nature of the claim" into a patent-eligible application. *Id.*, at ___. We have described step two of this analysis as a search for an "'inventive concept'"—*i.e.*, an element or combination of elements that is "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself." *Id.*, at ___.

A

We must first determine whether the claims at issue are directed to a patent-ineligible concept. We conclude that they are: These claims are drawn to the abstract idea of intermediated settlement.

The "abstract ideas" category embodies "the longstanding rule that '[a]n idea of itself is not patentable.'" *Benson*, *supra*, at 67 (quoting *Rubber-Tip Pencil Co. v. Howard*, 22 L.Ed. 410 (1874)). In *Benson*, for example, this Court rejected as ineligible patent claims involving an algorithm for converting binary-coded decimal numerals into pure binary form, holding that the claimed patent was "in practical effect ... a patent on the algorithm itself." 409 U.S., at 71-72. And in *Parker v. Flook*, 437 U.S. 584, 594-595 (1978) we held that a mathematical formula for computing "alarm limits" in a catalytic conversion process was also a patent-ineligible abstract idea.

We most recently addressed the category of abstract ideas in *Bilski v. Kappos*, 561 U.S. 593 (2010). The claims at issue in *Bilski* described a method for hedging against the financial risk of price fluctuations. Claim 1 recited a series of steps for hedging risk, including: (1) initiating a series of financial transactions between providers and consumers of a commodity; (2) identifying market participants that have a counterrisk for the same commodity; and (3) initiating a series of transactions between those market participants and the commodity provider to balance the risk position of the first series of consumer transactions. *Id.*, at 599. Claim 4 "pu[t] the concept articulated in claim 1 into a simple mathematical formula." *Ibid.* The remaining claims were drawn to examples of hedging in commodities and energy markets.

"[A]ll members of the Court agree[d]" that the patent at issue in *Bilski* claimed an "abstract idea." *Id.*, at 609. Specifically, the claims described "the basic concept of hedging, or protecting against risk." *Id.*, at 611. The Court explained that "'[h]edging is a fundamental economic practice long prevalent in our system of commerce and taught in any introductory finance class.'" *Ibid.* "The concept of hedging" as recited by the claims in suit was therefore a patent-ineligible "abstract idea, just like the algorithms at issue in *Benson* and *Flook*." *Ibid.*

It follows from our prior cases, and *Bilski* in particular, that the claims at issue here are directed to an abstract idea. Petitioner's claims involve a method of exchanging financial obligations between two parties using a third-party intermediary to mitigate settlement risk. The intermediary creates and updates "shadow" records to reflect the value of each party's actual accounts held at "exchange institutions," thereby permitting only those transactions for which the parties have sufficient resources. At the end of each day, the intermediary issues irrevocable instructions to the exchange institutions to carry out the permitted transactions.

On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk. Like the risk hedging in *Bilski*, the concept of intermediated settlement is "'a fundamental economic practice long prevalent in our system of commerce.'" *Ibid.* The use of a third-party intermediary (or "clearing house") is also a building block of the modern economy. Thus, intermediated settlement, like hedging, is an "abstract idea" beyond the scope of § 101.

Petitioner acknowledges that its claims describe intermediated settlement, but rejects the conclusion that its claims recite an "abstract idea." Drawing on the presence of mathematical formulas in some of our abstract-ideas precedents, petitioner contends that the abstract-ideas category is confined to "preexisting, fundamental truth[s]" that "'exis[t] in principle apart from any human action.'" *Id.*, at 23, 26 (quoting *Mayo*, 566 U.S., at ___).

Bilski belies petitioner's assertion. The concept of risk hedging we identified as an abstract idea in that case cannot be described as a "preexisting, fundamental truth." The patent in Bilski simply involved a "series of steps instructing how to hedge risk." 561 U.S., at 599. Although hedging is a longstanding commercial practice, *id.*, at 599, it is a method of organizing human activity, not a "truth" about the natural world "'that has always existed,'" Brief for Petitioner 22 (quoting *Flook*, *supra*, at 593, n.15). One of the claims in *Bilski* reduced hedging to a mathematical formula, but the Court did not assign any special significance to that fact, much less the sort of talismanic significance petitioner claims. Instead, the Court grounded its conclusion that all of the claims at issue were abstract ideas in the understanding that risk hedging was a "'fundamental economic practice.'" 561 U.S., at 611.

In any event, we need not labor to delimit the precise contours of the "abstract ideas" category in this case. It is enough to recognize that there is no meaningful distinction between the concept of risk hedging in *Bilski* and the concept of intermediated settlement at issue here. Both are squarely within the realm of "abstract ideas" as we have used that term.

B

Because the claims at issue are directed to the abstract idea of intermediated settlement, we turn to the second step in *Mayo's* framework. We conclude that the method claims, which merely require generic computer implementation, fail to transform that abstract idea into a patent-eligible invention.

1

At *Mayo* step two, we must examine the elements of the claim to determine whether it contains an "'inventive concept'" sufficient to "transform" the claimed abstract idea into a patent-eligible application. 566 U.S., at ___, ___. A claim that recites an abstract idea must include "additional features" to ensure "that the [claim] is more than a drafting effort designed to monopolize the [abstract idea]." *Id.*, at ___. *Mayo* made clear that transformation into a patent-eligible application requires "more than simply stat[ing] the [abstract idea] while adding the words 'apply it.'" *Id.*, at ___.

Mayo itself is instructive. The patents at issue in *Mayo* claimed a method for measuring metabolites in the bloodstream in order to calibrate the appropriate dosage of thiopurine drugs in the treatment of autoimmune diseases. The respondent in that case contended that the claimed method was a patent-eligible application of natural laws that describe the relationship between the concentration of certain metabolites and the likelihood that the drug dosage will be harmful or ineffective. But methods for determining metabolite levels were already "well known in the art," and the process at issue amounted to "nothing significantly more than an instruction to doctors to apply the applicable laws when treating their patients." *Id.*, at ___. "Simply appending conventional steps, specified at a high level of generality," was not "enough" to supply an "'inventive concept.'" *Id.*, at ___, ___, ___.

The introduction of a computer into the claims does not alter the analysis at *Mayo* step two. In *Benson*, for example, we considered a patent that claimed an algorithm implemented on "a general-purpose digital computer." 409 U.S., at 64. Because the algorithm was an abstract idea, the claim had to supply a "'new and useful" application of the idea in order

to be patent eligible. 409 U.S., at 67. But the computer implementation did not supply the necessary inventive concept; the process could be "carried out in existing computers long in use." *Ibid.* We accordingly "held that simply implementing a mathematical principle on a physical machine, namely a computer, [i]s not a patentable application of that principle." *Mayo*, *supra*, at ____ (citing *Benson*, *supra*, at 64).

Flook is to the same effect. There, we examined a computerized method for using a mathematical formula to adjust alarm limits for certain operating conditions (*e.g.*, temperature and pressure) that could signal inefficiency or danger in a catalytic conversion process. 437 U.S., at 585-586. Once again, the formula itself was an abstract idea, and the computer implementation was purely conventional. In holding that the process was patent ineligible, we rejected the argument that "implement[ing] a principle in some specific fashion" will "automatically fal[l] within the patentable subject matter of § 101." *Id.*, at 593. Thus, "*Flook* stands for the proposition that the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of [the idea] to a particular technological environment." *Bilski*, 561 U.S., at 610-611 (internal quotation marks omitted).

In *Diehr*, 450 U.S. 175 by contrast, we held that a computer-implemented process for curing rubber was patent eligible, but not because it involved a computer. The claim employed a "well-known" mathematical equation, but it used that equation in a process designed to solve a technological problem in "conventional industry practice." *Id.*, at 177, 178. The invention in *Diehr* used a "thermocouple" to record constant temperature measurements inside the rubber mold—something "the industry ha[d] not been able to obtain." *Id.*, at 178, and n. 3. The temperature measurements were then fed into a computer, which repeatedly recalculated the remaining cure time by using the mathematical equation. *Id.*, at 178-179. These additional steps, we recently explained, "transformed the process into an inventive application of the formula." *Mayo*, *supra*, at ____. In other words, the claims in *Diehr* were patent eligible because they improved an existing technological process, not because they were implemented on a computer.

These cases demonstrate that the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea "while adding the words 'apply it'" is not enough for patent eligibility. *Mayo, supra*, at ____. Nor is limiting the use of an abstract idea "'to a particular technological environment.'" *Bilski, supra*, at 610-611. Stating an abstract idea while adding the words "apply it with a computer" simply combines those two steps, with the same deficient result. Thus, if a patent's recitation of a computer amounts to a mere instruction to "implemen[t]" an abstract idea "on ... a computer," *Mayo, supra*, at ____, that addition cannot impart patent eligibility. This conclusion accords with the pre-emption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of "additional featur[e]" that provides any "practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself." *Mayo*, 566 U.S., at ____.

The fact that a computer "necessarily exist[s] in the physical, rather than purely conceptual, realm," Brief for Petitioner 39, is beside the point. There is no dispute that a computer is a tangible system (in § 101 terms, a "machine"), or that many computer-implemented claims are formally addressed to patent-eligible subject matter. But if that were the end of the § 101 inquiry, an applicant could claim any principle of the physical or social sciences

by reciting a computer system configured to implement the relevant concept. Such a result would make the determination of patent eligibility "depend simply on the draftsman's art," *Flook, supra*, at 593, thereby eviscerating the rule that "'[l]aws of nature, natural phenomena, and abstract ideas are not patentable," *Myriad*, 569 U.S., at ___.

2

The representative method claim in this case recites the following steps: (1) "creating" shadow records for each counterparty to a transaction; (2) "obtaining" start-of-day balances based on the parties' real-world accounts at exchange institutions; (3) "adjusting" the shadow records as transactions are entered, allowing only those transactions for which the parties have sufficient resources; and (4) issuing irrevocable end-of-day instructions to the exchange institutions to carry out the permitted transactions. Petitioner principally contends that the claims are patent eligible because these steps "require a substantial and meaningful role for the computer." Brief for Petitioner 48. As stipulated, the claimed method requires the use of a computer to create electronic records, track multiple transactions, and issue simultaneous instructions; in other words, "[t]he computer is itself the intermediary." *Ibid.* (emphasis deleted).

In light of the foregoing, the relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea of intermediated settlement on a generic computer. They do not.

Taking the claim elements separately, the function performed by the computer at each step of the process is "[p]urely conventional." *Mayo*, *supra*, at ___ (internal quotation marks omitted). Using a computer to create and maintain "shadow" accounts amounts to electronic recordkeeping—one of the most basic functions of a computer. The same is true with respect to the use of a computer to obtain data, adjust account balances, and issue automated instructions; all of these computer functions are "well-understood, routine, conventional activit[ies]" previously known to the industry. *Mayo*, 566 U.S., at ___. In short, each step does no more than require a generic computer to perform generic computer functions.

Considered "as an ordered combination," the computer components of petitioner's method "ad[d] nothing ... that is not already present when the steps are considered separately." *Id.*, at ___. Viewed as a whole, petitioner's method claims simply recite the concept of intermediated settlement as performed by a generic computer. The method claims do not, for example, purport to improve the functioning of the computer itself. Nor do they effect an improvement in any other technology or technical field. Instead, the claims at issue amount to "nothing significantly more" than an instruction to apply the abstract idea of intermediated settlement using some unspecified, generic computer. *Mayo*, 566 U.S., at ___. Under our precedents, that is not "enough" to transform an abstract idea into a patent-eligible invention. *Id.*, at ___.

C

Petitioner's claims to a computer system and a computer-readable medium fail for substantially the same reasons. Petitioner conceded below that its media claims rise or fall with its method claims. As to its system claims, petitioner emphasizes that those claims recite "specific hardware" configured to perform "specific computerized functions." Brief for

Petitioner 53. But what petitioner characterizes as specific hardware—a "data processing system" with a "communications controller" and "data storage unit,"—is purely functional and generic. Nearly every computer will include a "communications controller" and "data storage unit" capable of performing the basic calculation, storage, and transmission functions required by the method claims. As a result, none of the hardware recited by the system claims "offers a meaningful limitation beyond generally linking 'the use of the [method] to a particular technological environment,' that is, implementation via computers." *Id.*, at 1291 (quoting *Bilski*, 561 U.S., at 610-611).

Put another way, the system claims are no different from the method claims in substance. The method claims recite the abstract idea implemented on a generic computer; the system claims recite a handful of generic computer components configured to implement the same idea. This Court has long "warn[ed] ... against" interpreting § 101 "in ways that make patent eligibility 'depend simply on the draftsman's art.'" *Mayo*, *supra*, at ___ (quoting *Flook*, 437 U.S., at 593). Holding that the system claims are patent eligible would have exactly that result.

Because petitioner's system and media claims add nothing of substance to the underlying abstract idea, we hold that they too are patent ineligible under § 101.

* * *

For the foregoing reasons, the judgment of the Court of Appeals for the Federal Circuit is affirmed.

It is so ordered.

Clicks and More

Intellectual property disputes arise throughout the world and the rights themselves are often critical for whether businesses can succeed or fail. To just highlight a few situations in key IP areas, consider the following:

- *Copyright*: Aereo's internet TV service is built on thousands of tiny antennas and an effort to navigate U.S. copyright law very carefully. You can read background on Aereo here and here and read the Supreme Court's June 2014 opinion condemning the service here.
- *Patents*: Attention on patents has exploded. Two items are especially worthy of attention: the smartphone patent wars and the rise of the patent troll (or, more neutrally, the patent-acquisition entity). On the smartphone patent wars, for background on the U.S. Apple-Samsung dispute, read here as well as the August 24, 2013 jury verdict itself (and my commentary here). And you can sample results in Japan, South Korea and Germany. On patent trolls, you can get one perspective from the White House Blog (June 14, 2013 here) and a second by visiting the website of a prominent firm in this space, Intellectual Ventures.
- *Trade Secrets*: It is frequently said by firms that there most important assets walk out the door each night, but sometimes that is literally true. In May, 2013, The Commission on the Theft of Intellectual Property released its report (see Chapter 5 for background on trade secret theft). Single incidents can generate huge losses for firms (see, for example, the June 27, 2013 press release from the U.S. Department of Justice regarding a trade secret theft resulting an $800 million loss). Congress has responded by boosting penalties in the Foreign and Economic Espionage Penalty Enhancement Act of 2012 (Pub. L. 112-269, Jan. 14, 2013). On May 11, 2016, Congress passed new trade secrets legislation, the Defend Trade Secrets Act of 2016, Pub.L. 114-153.
- *Right of Publicity*: Who gets to control your beautiful face? Notwithstanding the magic of plastic surgery, we don't typically think of faces as being authored, so we aren't in the realm of copyright. Instead, state law creates rules regarding the right of publicity. EA Sports has been embroiled in litigation over these issues regarding its college sports games with two recent court of appeals decisions (*In re NCAA Student-Athlete Name & Likeness Licensing Litigation* (CA9, July 31, 2013) and *Hart v. Electronic Arts* (CA3, May 21, 2013)).

Session 3: Market Power: Antitrust

We will discuss regulatory approaches to market power. In this session, we will look at the antitrust/competition policy approach to market power, while in our next session, we will consider the sort of regulations that we see of natural monopoly in areas such as telecommunications or electricity regulation. For today, we will read chunk of the recent case involving Apple, the iPad and the ebooks market. We then turn to the situation with Google in the European Union. On June 27, 2017, April 15, 2015, the European Commission fined Google €2.42 billion for abusing its dominant position relating to its Google shopping product. And roughly one year later, on July 18, 2018 the EC fined Google €4.34 billion for violations relating to Google's practices regarding Android.

United States v. Apple, Inc.

791 F.3d 290 (2nd Cir. 2015)

DEBRA ANN LIVINGSTON, Circuit Judge: Since the invention of the printing press, the distribution of books has involved a fundamentally consistent process: compose a manuscript, print and bind it into physical volumes, and then ship and sell the volumes to the public. In late 2007, Amazon.com, Inc. ("Amazon") introduced the Kindle, a portable device that carries digital copies of books, known as "ebooks." This innovation had the potential to change the centuries-old process for producing books by eliminating the need to print, bind, ship, and store them. Amazon began to popularize the new way to read, and encouraged consumers to buy the Kindle by offering desirable books—new releases and *New York Times* bestsellers—for $9.99. Publishing companies, which have traditionally stood at the center of the multi-billion dollar book-producing industry, saw Amazon's ebooks, and particularly its $9.99 pricing, as a threat to their way of doing business.

By November 2009, Apple, Inc. ("Apple") had plans to release a new tablet computer, the iPad. Executives at the company saw an opportunity to sell ebooks on the iPad by creating a virtual marketplace on the device, which came to be known as the "iBookstore." Working within a tight timeframe, Apple went directly into negotiations with six of the major publishing companies in the United States. In two months, it announced that five of those companies—Hachette, Harpercollins, Macmillan, Penguin, and Simon & Schuster (collectively, the "Publisher Defendants")—had agreed to sell ebooks on the iPad under arrangements whereby the publishers had the authority to set prices, and could set the prices of new releases and *New York Times* bestsellers as high as $19.99 and $14.99, respectively. Each of these agreements, by virtue of its terms, resulted in each Publisher Defendant receiving *less* per ebook sold via Apple as opposed to Amazon, even given the higher consumer prices. Just a few months after the iBookstore opened, however, every one of the Publisher Defendants had taken control over pricing from Amazon and had raised the prices on many of their ebooks, most notably new releases and bestsellers.

The United States Department of Justice ("DOJ" or "Justice Department") and 33 states and territories (collectively, "Plaintiffs") filed suit in the United States District Court for the Southern District of New York, alleging that Apple, in launching the iBookstore, had conspired with the Publisher Defendants to raise prices across the nascent ebook market. This agreement, they argued, violated § 1 of the Sherman Antitrust Act, 15 U.S.C. § 1 *et seq.* ("Sherman Act"), and state antitrust laws. All five Publisher Defendants settled and

signed consent decrees, which prohibited them, for a period, from restricting ebook retailers' ability to set prices. Then, after a three-week bench trial, the district court (Cote, J.) concluded that, in order to induce the Publisher Defendants to participate in the iBookstore and to avoid the necessity of itself competing with Amazon over the retail price of ebooks, Apple orchestrated a conspiracy among the Publisher Defendants to raise the price of ebooks—particularly new releases and *New York Times* bestsellers. *United States v. Apple Inc.*, 952 F. Supp. 2d 638, 647 (S.D.N.Y. 2013). The district court found that the agreement constituted a *per se* violation of the Sherman Act and, in the alternative, unreasonably restrained trade under the rule of reason. On September 5, 2013, the district court entered final judgment on the liability finding and issued an injunctive order that, *inter alia*, prevents Apple from entering into agreements with the Publisher Defendants that restrict its ability to set, alter, or reduce the price of ebooks, and requires Apple to apply the same terms and conditions to ebook applications sold on its devices as it does to other applications.

On appeal, Apple contends that the district court's liability finding was erroneous and that the provisions of the injunction related to its pricing authority and ebook applications are not necessary to protect the public. *** Because we conclude that the district court did not err in deciding that Apple violated § 1 of the Sherman Act, and because we also conclude that the district court's injunction was lawful and consistent with preventing future anticompetitive harms, we affirm.

BACKGROUND

I. Factual Background

We begin not with Kindles and iPads, but with printed "trade books," which are "general interest fiction and non-fiction" books intended for a broad readership. *Apple*, 952 F. Supp. 2d at 648 n.4. In the United States, the six largest publishers of trade books, known in the publishing world as the "Big Six," are Hachette, HarperCollins, Macmillan, Penguin, Random House, and Simon & Schuster. Together, the Big Six publish many of the biggest names in fiction and non-fiction; during 2010, their titles accounted for over 90% of the *New York Times* bestsellers in the United States. *Id.* at 648 n.5.

For decades, trade book publishers operated under a fairly consistent business model. When a new book was ready for release to the public, the publisher would sell hardcover copies to retailers at a "wholesale" price and recommend resale to consumers at a markup, known as the "list" price. After the hardcover spent enough time on the shelves—often a year—publishers would release a paperback copy at lower "list" and "wholesale" prices. In theory, devoted readers would pay the higher hardcover price to read the book when it first came out, while more casual fans would wait for the paperback.

A. Amazon's Kindle

On November 19, 2007, Amazon released the Kindle: a portable electronic device that allows consumers to purchase, download, and read ebooks. At the time, there was only one other ereader available in the emerging ebook market, and Amazon's Kindle quickly gained traction. In 2007, ebook revenue in North America was only $70 million, a tiny

amount relative to the approximately $30 billion market for physical trade books. *** Amazon followed a "wholesale" business model similar to the one used with print books: publishers recommended a digital list price and received a wholesale price for each ebook that Amazon sold. In exchange, Amazon could sell the publishers' ebooks on the Kindle and determine the retail price. At least early on, publishers tended to recommend a digital list price that was about 20% lower than the print list price to reflect the fact that, with an ebook, there is no cost for printing, storing, packaging, shipping, or returning the books.

Where Amazon departed from the publishers' traditional business model was in the sale of new releases and *New York Times* bestsellers. Rather than selling more expensive versions of these books upon initial release (as publishers encouraged by producing hardcover books before paperback copies), Amazon set the Kindle price at one, stable figure—$9.99. At this price, Amazon was selling "certain" new releases and bestsellers at a price that "roughly matched," or was slightly lower than, the wholesale price it paid to the publishers. *Apple*, 952 F. Supp. 2d at 649. ***

B. The Publishers' Reactions

Despite the small number of ebook sales compared to the overall market for trade books, top executives in the Big Six saw Amazon's $9.99 pricing strategy as a threat to their established way of doing business. *** In the short term, these members of the Big Six thought that Amazon's lower-priced ebooks would make it more difficult for them to sell hardcover copies of new releases, "which were often priced," as the district court noted, "at thirty dollars or more," *Apple*, 952 F. Supp. 2d at 649, as well as *New York Times* bestsellers. Further down the road, the publishers feared that consumers would become accustomed to the uniform $9.99 price point for these ebooks, permanently driving down the price they could charge for print versions of the books. Moreover, if Amazon became powerful enough, it could demand lower wholesale prices from the Big Six or allow authors to publish directly with Amazon, cutting out the publishers entirely. *** The executives of the Big Six also recognized that their problem was a collective one. ***

The most significant attack that the publishers considered and then undertook, however, was to withhold new and bestselling books from Amazon until the hardcover version had spent several months in stores, a practice known as "windowing." Members of the Big Six both kept one another abreast of their plans to window, and actively pushed others toward the strategy. *** Ultimately, however, the publishers viewed even this strategy to save their business model as self-destructive. Employees inside the publishing companies noted that windowing encouraged piracy, punished ebook consumers, and harmed long-term sales. ***

C. Apple's Entry into the ebook Market

Apple is one of the world's most innovative and successful technology companies. Its hardware sells worldwide and supports major software marketplaces like iTunes and the App Store. But in 2009, Apple lacked a dedicated marketplace for ebooks or a hardware device that could offer an outstanding reading experience. The pending release of the iPad, which Apple intended to announce on January 27, 2010, promised to solve that hardware deficiency.

Eddy Cue, Apple's Senior Vice President of Internet Software and Services and the director of Apple's digital content stores, saw the opportunity for an ebook marketplace on the iPad. *** Jobs approved Cue's plan for an ebook marketplace—which came to be known as the iBookstore—in November 2009. ***

D. Apple's Negotiations with the Publishers

1. Initial Meetings

Apple held its first meetings with each of the Big Six between December 15 and 16. The meetings quickly confirmed Cue's suspicions about the industry. As he wrote to Jobs after speaking with three of the publishers, "[c]learly, the biggest issue is new release pricing" and "Amazon is definitely not liked much because of selling below cost for NYT Best Sellers." J.A. 326-27. Many publishers also emphasized that they were searching for a strategy to regain control over pricing. Apple informed each of the Big Six that it was negotiating with the other major publishers, that it hoped to begin selling ebooks within the next 90 days, and that it was seeking a critical mass of participants in the iBookstore and would launch only if successful in reaching this goal. *** Most importantly for the publishers, however, Cue's team also expressed Apple's belief that Amazon's $9.99 price point was not ingrained in consumers' minds, and that Apple could sell new releases and *New York Times* bestsellers for somewhere between $12.99 and $14.99. In return, Apple requested that the publishers decrease their wholesale prices so that the company could make a small profit on each sale.

These meetings spurred a flurry of communications reporting on the "[t]errific news[,]" as Reidy put it in an email to Leslie Moonves, her superior at parent company CBS Corporation ("CBS"), that Apple "was not interested in a low price point for digital books" and didn't want "Amazon's $9.95 [sic] to continue." *Apple*, 952 F. Supp. 2d at 658 (first alteration in original) (internal quotation marks omitted). Significantly, these communications included numerous exchanges *between* executives at different Big Six publishers who, the district court found, "hashed over their meetings with Apple with one another." *Id.* The district court found that the frequent telephone calls among the Publisher Defendants during the period of their negotiations with Apple "represented a departure from the ordinary pattern of calls among them." *Id.* at 655 n.14.

2. The Agency Model

Meanwhile, Cue, Moerer, and Saul returned to Apple's headquarters to develop a business model for the iBookstore. *** It was at this point that Cue's team, recognizing its opportunity, abandoned the wholesale business model for a new, agency model. Unlike a wholesale model, in an agency relationship the *publisher* sets the price that consumers will pay for each ebook. Then, rather than the retailer paying the publisher for each ebook that it sells, the publisher pays the retailer a fixed percentage of each sale. In essence, the retailer receives a commission for distributing the publisher's ebooks. Under the system Apple devised, publishers would have the freedom to set ebook prices in the iBookstore, and would keep 70% of each sale. The remaining 30% would go to Apple as a commission.

This switch to an agency model obviated Apple's concerns about negotiating wholesale prices with the Big Six while ensuring that Apple profited on every sale. It did not, however, solve all of the company's problems. Because the agency model handed the publishers control over pricing, it created the risk that the Big Six would sell ebooks in the iBookstore at far higher prices than Kindle's $9.99 offering. If the prices were too high, Apple could be left with a brand new marketplace brimming with titles, but devoid of customers.

To solve this pricing problem, Cue's team initially devised two strategies. First, they realized that they could maintain "realistic prices" by establishing price caps for different types of books. J.A. 359. Of course, these caps would need to behigher than Amazon's $9.99 price point, or Apple would face the same difficult price negotiations that it sought to avoid by switching away from the wholesale model. But at this point Apple was not content to open its iBookstore offering prices higher than the competition. ***

Apple next concluded, then, as the district court found, that "[t]o ensure that the iBookstore would be competitive at higher prices, Apple . . . needed to eliminate all retail price competition." *Id.* at 659. Thus, rather than simply agreeing to price caps above Amazon's $9.99 price point, Apple created a second requirement: publishers must switch all of their other ebook retailers—including Amazon—to an agency pricing model. ***

On January 4 and 5, Apple sent essentially identical emails to each member of the Big Six to explain its agency model proposal. Each email described the commission split between Apple and the publishers and recommended three price caps: $14.99 for hardcover books with list prices above $35; $12.99 for hardcover books with list prices below $35; and $9.99 for all other trade books. The emails also explained that, "to sell ebooks at realistic prices . . . all [other] resellers of new titles need to be in [the] agency model" as well. J.A. 360. Or, as Cue told Reidy, "all publishers" would need to move "all retailers" to an agency model. J.A. 2060.

3. The "Most-Favored-Nation" Clause

Cue's thoughts on the agency model continued to evolve after the emails on January 4 and 5. Most significantly, Saul—Cue's in-house counsel—devised an alternative to explicitly requiring publishers to switch other retailers to agency. This alternative involved the use of a "most-favored nation" clause ("MFN Clause" or "MFN"). In general, an MFN Clause is a contractual provision that requires one party to give the other the best terms that it makes available to any competitor. In the context of Apple's negotiations, the MFN Clause mandated that, "[i]f, for any particular New Release in hardcover format, the . . . Customer Price [in the iBookstore] at any time is or becomes higher than a customer price offered by any other reseller . . ., then [the] Publisher shall designate a new, lower Customer Price [in the iBookstore] to meet such lower [customer price]." J.A. 559. Put differently, the MFN would require the publisher to offer any ebook in Apple's iBookstore for no more than what the same ebook was offered elsewhere, such as from Amazon.

On January 11, Apple sent each of the Big Six a proposed eBook Agency Distribution Agreement (the "Contracts"). As described in the January 4 and 5 emails, these Contracts would split the proceeds from each ebook sale between the publisher and Apple, with the publisher receiving 70%, and would set price caps on ebooks at $14.99, $12.99, and $9.99

depending on the book's hardcover price. But unlike the initial emails, the Contracts contained MFN Clauses in place of the requirement that publishers move all other retailers to an agency model. Apple then assured each member of the Big Six that it was being offered the same terms as the others.

The Big Six understood the economic incentives that the MFN Clause created. Suppose a new hardcover release sells at a list price of $25, and a wholesale price of $12.50. With Amazon, the publishers had been receiving the wholesale price (or a slightly lower digital wholesale price) for every ebook copy of the volume sold on Kindle, even if Amazon ultimately sold the ebook for less than that wholesale price. Under Apple's initial agency model—with price caps but no MFN Clause—the publishers already stood to make *less* money per ebook with Apple. Because Apple capped the ebook price of a $25 hardcover at $12.99 and took 30% of that price, publishers could only expect to make $8.75 per sale. But what the publishers sacrificed in short-term revenue, they hoped to gain in long-term stability by acquiring more control over pricing and, accordingly, the ability to protect their hardcover sales.

The MFN Clause changed the situation by making it imperative, not merely desirable, that the publishers wrest control over pricing from ebook retailers generally. Under the MFN, if Amazon stayed at a wholesale model and continued to sell ebooks at $9.99, the publishers would be forced to sell in the iBookstore, too, at that same $9.99 price point. The result would be the worst of both worlds: *lower* short-term revenue and *no* control over pricing. The publishers recognized that, as a practical matter, this meant that the MFN Clause would force them to move Amazon to an agency relationship. *** Apple understood this dynamic as well. *** Cue bluntly put it, "any decent MFN forces the model" away from wholesale and to agency. *Id.* (internal quotation marks omitted). ***

Thus, the terms of the negotiation between Apple and the publishers became clear: Apple wanted quick and successful entry into the ebook market and to eliminate retail price competition with Amazon. In exchange, it offered the publishers an opportunity "to confront Amazon as one of an organized group . . . united in an effort to eradicate the $9.99 price point." *Id.* at 664. Both sides needed a critical mass of publishers to achieve their goals. The MFN played a pivotal role in this *quid pro quo* by "stiffen[ing] the spines of the [publishers] to ensure that they would demand new terms from Amazon," and protecting Apple from retail price competition. *Id.* at 665.

4. Final Negotiations

The proposed Contracts sparked intense negotiations as Cue's team raced to assemble enough publishers to announce the iBookstore by January 27. *** In a set of meetings between January 13 and 14, the majority of the Big Six expressed a general willingness to adopt an agency model, but refused to do so with the price limits Apple demanded. Cue responded by asking Jobs for permission to create a more lenient price cap system. Under this new regime, *New York Times* bestsellers could sell for $14.99 if the hardcover was listed above $30, and for $12.99 if listed below that price. As for new releases, a $12.99 cap would apply to hardcovers priced between $25 and $27.50; a $14.99 cap would apply to hardcovers selling for up to $30; and, if the hardcover sold for over $30, publishers could sell the ebook for between $16.99 and $19.99. Jobs responded that he could "live with" the pricing "as long as [the publishers] move Amazon to the agen[cy] model too." J.A. 499.

Cue proposed this new pricing regime to the Big Six on January 16 and, with only 11 days remaining before the iPad launch, turned up the pressure. *** By January 22, two publishers—Simon & Schuster and Hachette—had verbally committed to join the iBookstore, while a third, Penguin, had agreed to Apple's terms in principle. *** To make matters worse, "[p]ress reports on January 18 and 19 alerted the publishing world and Amazon to the Publishers' negotiations with Apple," *Apple*, 952 F. Supp. 2d at 670-71, and Amazon learned from Random House that it was facing "pressure from other publishers . . . to move to [the] agency model because Apple had made it clear that unless all of the Big Six participated, they wouldn't bother with building a bookstore," J.A. 1520. Representatives from Amazon descended on New York for a set of long-scheduled meetings with the publishers. As the district court found, "[i]n separate conversations on January 20 and over the next few days, the Publisher Defendants all told Amazon that they wanted to change to an agency distribution model with Amazon." *Apple*, 952 F. Supp. 2d at 672. ***

HarperCollins was the fifth, and final, publisher to agree in principle to Apple's proposal. Murray, its CEO, "remained unhappy over the size of Apple's commission and the existence of price caps." *Id.* at 673 n.39. Unable to negotiate successfully with Murray, Cue asked Jobs to contact James Murdoch, the CEO of the publisher's parent company, and "tell him we have 3 signed so there is no leap of faith here." *Id.* at 675 (internal quotation marks omitted). After a series of emails, Jobs summarized Apple's position to Murdoch:

> [W]e simply don't think the ebook market can be successful with pricing higher than $12.99 or $14.99. Heck, Amazon is selling these books at $9.99, and who knows, maybe they are right and we will fail even at $12.99. But we're willing to try at the prices we've proposed. . . . As I see it, [HarperCollins] has the following choices: (1) Throw in with [A]pple and see if we can all make a go of this to create a real mainstream ebooks market at $12.99 and $14.99. (2) Keep going with Amazon at $9.99. You will make a bit more money in the short term, but in the medium term Amazon will tell you they will be paying you 70% of $9.99. They have shareholders too. (3) Hold back your books from Amazon. Without a way for customers to buy your ebooks, they will steal them.

Id. at 677. Cue also emailed Murray to inform him that four other publishers had signed their agreements. Murray then called executives at both Hachette and Macmillan before agreeing to Apple's terms.

As the district court found, during the period in January during which Apple concluded its agreements with the Publisher Defendants, "Apple kept the Publisher Defendants apprised about who was in and how many were on board." *Id.* at 673. The Publisher Defendants also kept in close communication. As the district court noted, "[i]n the critical negotiation period, over the three days between January 19 and 21, Murray, Reidy, Shanks, Young, and Sargeant called one another 34 times, with 27 calls exchanged on January 21 alone." *Id.* at 674.

By the January 27 iPad launch, five of the Big Six—Hachette, HarperCollins, Macmillan, Penguin, and Simon & Schuster—had agreed to participate in the iBookstore. The lone holdout, Random House, did not join because its executives believed it would fare better under a wholesale pricing model and were unwilling to make a complete switch to agency pricing. Steve Jobs announced the iBookstore as part of his presentation introducing the iPad. When asked after the presentation why someone should purchase an ebook from

Apple for $14.99 as opposed to $9.99 with Amazon or Barnes & Noble, Jobs confidently replied, "[t]hat won't be the case . . . the price will be the same. . . . [P]ublishers will actually withhold their [e]books from Amazon . . . because they are not happy with the price." A day later, Jobs told his biographer the publishers' position with Amazon: "[y]ou're going to sign an agency contract or we're not going to give you the books." J.A. 891 (internal quotation marks omitted).

E. Negotiations with Amazon

Jobs's boast proved to be prophetic. While the Publisher Defendants were signing Apple's Contracts, they were also informing Amazon that they planned on changing the terms of their agreements with it to an agency model. However, their move against Amazon began in earnest on January 28, the day after the iPad launch. That afternoon, John Sargent flew to Seattle to deliver an ultimatum on behalf of Macmillan: that Amazon would switch its ebook sales agreement with Macmillan to an agency model or suffer a seven-month delay in its receipt of Macmillan's new releases. Amazon responded by removing the option to purchase Macmillan's print and ebook titles from its website.

Sargent, as the district court found, had informed Cue of his intention to confront Amazon before ever leaving for Seattle. *Apple*, 952 F. Supp. 2d at 678. On his return, he emailed Cue to inform him about Amazon's decision to remove Macmillan ebooks from Kindle, adding a note to say that he wanted to "make sure you are in the loop." J.A. 640. Sargent also wrote a public letter to Macmillan's authors and agents, describing the Amazon negotiations. Hachette's Arnaud Nourry emailed the CEO of Macmillan's parent company to express his "personal support" for Macmillan's actions and to "ensure [him] that [he was] not going to find [his] company alone in the battle." J.A. 643. A Penguin executive wrote to express similar support for Macmillan's position.

The district court found that while Amazon was "opposed to adoption of the agency model and did not want to cede pricing authority to the Publishers," it knew that it could not prevail in this position against five of the Big Six. *Apple*, 952 F. Supp. 2d at 671, 680. When Amazon told Macmillan that it would be willing to negotiate agency terms, Sargent sent Cue an email titled "URGENT!!" that read: "Hi Eddy, I am gonna need to figure out our final agency terms of sale tonight. Can you call me please?" J.A. 642. Cue and Sargent spoke that night and, while Cue denied at trial that the conversation concerned Macmillan's negotiations with Amazon, the district court found that "his denial was not credible." *Apple*, 952 F. Supp. 2d at 681 n.52. By February 5, Amazon had agreed to agency terms with Macmillan.

The other publishers who had joined the iBookstore quickly followed Macmillan's lead. *** Once again, Apple closely monitored the negotiations with Amazon. The Publisher Defendants would inform Cue when they had completed agency agreements, and his team monitored price changes on the Kindle. ***

F. Effect on Ebook Prices

As Apple and the Publisher Defendants expected, the iBookstore price caps quickly became the benchmark for ebook versions of new releases and *New York Times* bestsellers. In the five months following the launch of the iBookstore, the publishers who joined the marketplace and switched Amazon to an agency model priced 85.7% of new releases on

Kindle and 92.1% of new releases on the iBookstore at, or just below, the price caps. *Apple*, 952 F. Supp. 2d at 682. Prices for *New York Times* bestsellers took a similar leap as publishers began to sell 96.8% of their bestsellers on Kindle and 99.4% of their bestsellers on the iBookstore at, or just below, the Apple price caps *Id.* During that same time period, Random House, which had not switched to an agency model, saw virtually no change in the prices for its new releases or *New York Times* bestsellers.

*** Based on data from February 2010—just before the Publisher Defendants switched Amazon to agency pricing—to February 2011, an expert retained by the Justice Department observed that the weighted average price of the Publisher Defendants' new releases increased by 24.2%, while bestsellers increased by 40.4%, and other ebooks increased by 27.5%, for a total weighted average ebook price increase of 23.9%. Indeed, even Apple's expert agreed, noting that, over a two-year period, the Publisher Defendants increased their average prices for hardcovers, new releases, and other ebooks. ***

II. Apple's Liability Under § 1

This appeal requires us to address the important distinction between "horizontal" agreements to set prices, which involve coordination "between competitors at the same level of [a] market structure," and "vertical" agreements on pricing, which are created between parties "at different levels of [a] market structure." *Anderson News, L.L.C. v. Am. Media, Inc.*, 680 F.3d 162, 182 (2d Cir. 2012) (internal quotation marks omitted). Under § 1 of the Sherman Act, the former are, with limited exceptions, per se unlawful, while the latter are unlawful only if an assessment of market effects, known as a rule-of-reason analysis, reveals that they unreasonably restrain trade. ***

Apple characterizes its Contracts with the Publisher Defendants as a series of parallel but independent vertical agreements, a characterization that forms the basis for its two primary arguments against the district court's decision. *** For the reasons set forth below, we reject these arguments. On this record, the district court did not err in determining that Apple orchestrated an agreement with and among the Publisher Defendants, in characterizing this agreement as a horizontal price fixing-conspiracy, or in holding that the conspiracy unreasonably restrained trade in violation of § 1 of the Sherman Act.

A. The Conspiracy with the Publisher Defendants

Section 1 of the Sherman Act bans restraints on trade "effected by a contract, combination, or conspiracy." *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 553 (2007) (internal quotation marks omitted). The first "crucial question in a Section 1 case is therefore whether the challenged conduct 'stem[s] from independent decision or from an agreement, tacit or express.'" *Starr v. Sony BMG Music Entm't*, 592 F.3d 314, 321 (2d Cir. 2010) (alteration in original) (quoting *Theatre Enters., Inc. v. Paramount Film Distrib. Corp.*, 346 U.S. 537, 540 (1954)).

Identifying the existence and nature of a conspiracy requires determining whether the evidence "reasonably tends to prove that the [defendant] and others had a conscious commitment to a common scheme designed to achieve an unlawful objective." *Monsanto Co. v. Spray-Rite Serv. Corp.*, 465 U.S. 752, 764 (1984) (internal quotation marks omitted). Parallel action is not, by itself, sufficient to prove the existence of a conspiracy; such behavior could be the result of "coincidence, independent responses to common stimuli, or mere interdependence unaided by an advance understanding among the parties." *Twombly*, 550

U.S. at 556 n.4 (internal quotation marks omitted). Indeed, parallel behavior that does not result from an agreement is not unlawful even if it is anticompetitive. Accordingly, to prove an antitrust conspiracy, "a plaintiff must show the existence of additional circumstances, often referred to as 'plus' factors, which, when viewed in conjunction with the parallel acts, can serve to allow a fact-finder to infer a conspiracy." *Apex Oil Co. v. DiMauro*, 822 F.2d 246, 253 (2d Cir. 1987).

*** Because of the risk of condemning parallel conduct that results from independent action and not from an actual unlawful agreement, the Supreme Court has cautioned against drawing an inference of conspiracy from evidence that is equally consistent with independent conduct as with illegal conspiracy—or, as the Court has called it, "ambiguous" evidence. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 597 n.21 (1986).

*** Apple's basic argument is that because its Contracts with the Publisher Defendants were fully consistent with its independent business interests, those agreements provide only "ambiguous" evidence of a § 1 conspiracy, and the district court therefore erred under *Matsushita* and *Monsanto* in inferring such a conspiracy.

We disagree. At the start, Apple's benign portrayal of its Contracts with the Publisher Defendants is not persuasive—not because those Contracts themselves were independently unlawful, but because, in context, they provide strong evidence that Apple consciously orchestrated a conspiracy among the Publisher Defendants. As explained below, and as the district court concluded, Apple understood that its proposed Contracts were attractive to the Publisher Defendants *only* if they collectively shifted their relationships with Amazon to an agency model—which Apple knew would result in higher consumer-facing ebook prices. In addition to these Contracts, moreover, ample additional evidence identified by the district court established both that the Publisher Defendants' shifting to an agency model with Amazon was the result of express collusion among them and that Apple consciously played a key role in organizing that collusion. The district court did not err in concluding that Apple was more than an innocent bystander.

Apple offered each Big Six publisher a proposed Contract that would be attractive only if the publishers acted collectively. Under Apple's proposed agency model, the publishers stood to make less money per sale than under their wholesale agreements with Amazon, but the Publisher Defendants were willing to stomach this loss because the model allowed them to sell new releases and bestsellers for more than $9.99. Because of the MFN Clause, however, each new release and bestseller sold in the iBookstore would cost only $9.99 as long as Amazon continued to sell ebooks at that price. So in order to receive the perceived benefit of Apple's proposed Contracts, the Publisher Defendants had to switch Amazon to an agency model as well—something no individual publisher had sufficient leverage to do on its own. Thus, each Publisher Defendant would be able to accomplish the shift to agency—and therefore have an incentive to sign Apple's proposed Contracts—only if it acted in tandem with its competitors. By the very act of signing a Contract with Apple containing an MFN Clause, then, each of the Publisher Defendants signaled a clear commitment to move against Amazon, thereby facilitating their collective action. ***

The Supreme Court has defined an agreement for Sherman Act § 1 purposes as "a conscious commitment to a common scheme designed to achieve an unlawful objective." *Monsanto*, 465 U.S. at 764 (internal quotation marks omitted). Plainly, this use of the promise of higher prices as a bargaining chip to induce the Publisher Defendants to participate

in the iBookstore constituted a conscious commitment to the goal of raising ebook prices. *** Nor was the Publisher Defendants' joint action against Amazon a result of parallel decisionmaking. *** That the Publisher Defendants were in constant communication regarding their negotiations with both Apple and Amazon can hardly be disputed. Indeed, Apple never seriously argues that the Publisher Defendants were not acting in concert.

*** Apple's involvement in the conspiracy continued even past the signing of its agency agreements. Before Sargent flew to Seattle to meet with Amazon, he told Cue. Apple stayed abreast of the Publisher Defendants' progress as they set coordinated deadlines with Amazon and shared information with one another during negotiations. ***

Apple responds to this evidence—which the experienced judge who oversaw the trial characterized repeatedly as "overwhelming"—by explaining how each piece of evidence standing alone is "ambiguous" and therefore insufficient to support an inference of conspiracy. We are not persuaded. *** Combined with the unmistakable purpose of the Contracts that Apple proposed to the publishers, and with the collective move against Amazon that inevitably followed the signing of those Contracts, the emails and phone records demonstrate that Apple *agreed* with the Publisher Defendants, within the meaning of the Sherman Act, to raise consumer-facing ebook prices by eliminating retail price competition. The district court did not err in rejecting Apple's argument that the evidence of its orchestration of the Publisher Defendants' conspiracy was "ambiguous."

*** In short, we have no difficulty on this record rejecting Apple's argument that the district court erred in concluding that Apple "conspir[ed] with the Publisher Defendants to eliminate retail price competition and to raise e-book prices." *Apple*, 952 F. Supp. 2d at 691. Having concluded that the district court correctly identified an agreement between Apple and the Publisher Defendants to raise consumer-facing ebook prices, we turn to Apple's and the dissent's arguments that this agreement did not violate § 1 of the Sherman Act.

B. Unreasonable Restraint of Trade

"Although the Sherman Act, by its terms, prohibits every agreement 'in restraint of trade,' [the Supreme] Court has long recognized that Congress intended to outlaw only unreasonable restraints." *State Oil Co. v. Khan*, 522 U.S. 3, 10 (1997).***

In antitrust cases, "*[p]er se* and rule-of-reason analysis are . . . two methods of determining whether a restraint is 'unreasonable,' *i.e.*, whether its anticompetitive effects outweigh its procompetitive effects." *Atl. Richfield Co. v. USA Petroleum Co.*, 495 U.S. 328, 342 (1990). *** Horizontal price-fixing conspiracies traditionally have been, and remain, the "archetypal example" of a *per se* unlawful restraint on trade. *Catalano, Inc. v. Target Sales, Inc.*, 446 U.S. 643, 647 (1980). By contrast, the Supreme Court in recent years has clarified that vertical restraints—including those that restrict prices—should generally be subject to the rule of reason.

In this case, the district court held that the agreement between Apple and the Publisher Defendants was unlawful under the *per se* rule; in the alternative, even assuming that a rule-of-reason analysis was required, the district court concluded that the agreement was still unlawful.

1. Whether the *Per Se* Rule Applies

a. Horizontal Agreement

In light of our conclusion that the district court did not err in determining that Apple organized a price-fixing conspiracy among the Publisher Defendants, Apple and the dissent's initial argument against the *per se* rule—that Apple's conduct must be subject to rule-of-reason analysis because it involved merely multiple independent, vertical agreements with the Publisher Defendants—cannot succeed.

"The true test of legality" under § 1 of the Sherman Act "is whether the *restraint imposed* is such as merely regulates and perhaps thereby promotes competition or whether it is such as may suppress or even destroy competition." *Bd. of Trade of City of Chi. v. United States*, 246 U.S. 231, 238 (1918) (emphasis added). By agreeing to orchestrate a horizontal price-fixing conspiracy, Apple committed itself to "achiev[ing] [that] unlawful objective," *Monsanto*, 465 U.S. at 764 (internal quotation marks omitted): namely, collusion with and among the Publisher Defendants to set ebook prices. This type of agreement, moreover, is a restraint "that would always or almost always tend to restrict competition and decrease output." *Leegin*, 551 U.S. at 886 (internal quotation marks omitted).

The response, raised by Apple and our dissenting colleague, that Apple engaged in "vertical conduct" that is unfit for *per se* condemnation therefore misconstrues the Sherman Act analysis. It is the type of restraint Apple agreed to impose that determines whether the *per se* rule or the rule of reason is appropriate. These rules are means of evaluating "whether [a] *restraint* is unreasonable," not the reasonableness of a particular defendant's role in the scheme. *Atl. Richfield*, 495 U.S. at 342 (emphasis added) (internal quotation marks omitted).

Consistent with this principle, the Supreme Court and our Sister Circuits have held all participants in "hub-and-spoke" conspiracies liable when the objective of the conspiracy was a *per se* unreasonable restraint of trade. ***

Because the reasonableness of a restraint turns on its anticompetitive effects, and not the identity of each actor who participates in imposing it, Apple and the dissent's observation that the Supreme Court has refused to apply the *per se* rule to certain vertical agreements is inapposite. The rule of reason is unquestionably appropriate to analyze an agreement between a manufacturer and its distributors to, for instance, limit the price at which the distributors sell the manufacturer's goods or the locations at which they sell them. *See Leegin*, 551 U.S. at 881; *Cont'l T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 57 (1977). These vertical restrictions "are widely used in our free market economy," can enhance interbrand competition, and do not inevitably have a "pernicious effect on competition." *Cont'l T.V.*, 433 U.S. at 57-58 (internal quotation marks omitted). But the relevant "agreement in restraint of trade" in this case is not Apple's vertical Contracts with the Publisher Defendants (which might well, if challenged, have to be evaluated under the rule of reason); it is the horizontal agreement that Apple organized among the Publisher Defendants to raise ebook prices. As explained below, horizontal agreements with the purpose and effect of raising prices are *per se* unreasonable because they pose a "threat to the central nervous system of the economy," *United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150, 224 n.59 (1940); that threat is just as significant when a vertical market participant organizes the conspiracy. Indeed, as the dissent notes, the Publisher Defendants' coordination to fix

prices is uncontested on appeal. The competitive effects of that *same restraint* are no different merely because a different conspirator is the defendant.

Accordingly, when the Supreme Court has applied the rule of reason to vertical agreements, it has explicitly distinguished situations in which a vertical player organizes a horizontal cartel. ***

A horizontal conspiracy can use vertical agreements to facilitate coordination without the other parties to those agreements knowing about, or agreeing to, the horizontal conspiracy's goals. *** But there is no such possibility for confusion in the hub-and-spoke context, where the vertical organizer has not only committed to vertical agreements, but has also agreed to participate in the horizontal conspiracy. In that situation, the court need not consider whether the vertical agreements restrained trade because all participants agreed to the horizontal restraint, which is "and ought to be, *per se* unlawful." *Id.*

In short, the relevant "agreement in restraint of trade" in this case is the price-fixing conspiracy identified by the district court, not Apple's vertical contracts with the Publisher Defendants. How the law might treat Apple's vertical agreements in the absence of a finding that Apple agreed to create the horizontal restraint is irrelevant. Instead, the question is whether the vertical organizer of a horizontal conspiracy designed to raise prices has agreed to a restraint that is any less anticompetitive than its co-conspirators, and can therefore escape *per se* liability. We think not. Even in light of this conclusion, however, we must address two additional arguments that Apple raises against application of the *per se* rule.

b. "Enterprise and Productivity"

Apple seeks refuge from the *per se* rule by invoking a line of cases in which courts have permitted defendants to introduce procompetitive justifications for horizontal price-fixing arrangements that would ordinarily be condemned *per se* if those agreements "when adopted could reasonably have been believed to promote 'enterprise and productivity.'" Apple Br. at 50 (quoting *In re Sulfuric Acid Antitrust Litig.*, 703 F.3d 1004, 1011 (7th Cir. 2012)) (internal quotation mark omitted). ***

Put differently, a participant in a price-fixing agreement may invoke only certain, limited *kinds* of "enterprise and productivity" to receive the rule of reason's advantages. As the Supreme Court has explained—including in *BMI* itself, *see* 441 U.S. at 8 & n.11—the *per se* rule would lose all the benefits of being "*per se*" if conspirators could seek to justify their conduct on the basis of its purported competitive benefits in every case. Here, there was no joint venture or other similar productive relationship between any of the participants in the conspiracy that Apple joined. Apple also does not claim, nor could it, that creating an ebook retail market is possible only if the participating publishers coordinate with one another on price.

c. Price-Fixing Conspiracy

As noted, the Supreme Court has for nearly 100 years held that horizontal collusion to raise prices is the "archetypal example" of a *per se* unlawful restraint of trade. *Catalano*, 446 U.S. at 647. If successful, these conspiracies concentrate the power to set prices among the conspirators, including the "power to control the market and to fix arbitrary and unreasonable prices." *United States v. Trenton Potteries Co.*, 273 U.S. 392, 397 (1927). And even

if unsuccessful or "not . . . aimed at complete elimination of price competition," the conspiracies pose a "threat to the central nervous system of the economy" by creating a dangerously attractive opportunity for competitors to enhance their power at the expense of others. *Socony-Vacuum Oil*, 310 U.S. at 224 n.59 (1940).***

Apple and its amici argue that the horizontal agreement among the publishers was not actually a "price-fixing" conspiracy that deserves *per se* treatment in the first place. But it is well established that *per se* condemnation is not limited to agreements that literally set or restrict prices. Instead, any conspiracy "formed for the purpose and with the effect of raising, depressing, fixing, pegging, or stabilizing the price of a commodity . . . is illegal per se," and the precise "machinery employed . . . is immaterial." *Socony-Vacuum Oil*, 310 U.S. at 223. The conspiracy among Apple and the Publisher Defendants comfortably qualifies as a horizontal price-fixing conspiracy.

As we have already explained, the Publisher Defendants' primary objective in expressly colluding to shift the entire ebook industry to an agency model (with Apple's help) was to eliminate Amazon's $9.99 pricing for new releases and bestsellers, which the publishers believed threatened their short-term ability to sell hardcovers at higher prices and the long-term consumer perception of the price of a new book. They had grown accustomed to a business in which they rarely competed with one another on price and could, at least partially, control the price of new releases and bestsellers by releasing hardcover copies before paperbacks. Amazon, and the ebook, upset that model, and reduced prices to consumers by eliminating the need to print, store, and ship physical volumes. Its $9.99 price point for new releases and bestsellers represented a small loss on a small percentage of its sales designed to encourage consumers to adopt the new technology.

Faced with downward pressure on prices but unconvinced that withholding books from Amazon was a viable strategy, the Publisher Defendants—their coordination orchestrated by Apple—combined forces to grab control over price. Collectively, the Publisher Defendants accounted for 48.8% of ebook sales in 2010. J.A. 1571. Once organized, they had sufficient clout to demand control over pricing, in the form of agency agreements, from Amazon and other ebook distributors. This control over pricing facilitated their ultimate goal of raising ebook prices to the price caps. In other words, the Publisher Defendants took by collusion what they could not win by competition. And Apple used the publishers' frustration with Amazon's $9.99 pricing as a bargaining chip in its negotiations and structured its Contracts to coordinate their push to raise prices throughout the industry. A coordinated effort to raise prices across the relevant market was present in every chapter of this story.

This conspiracy to raise prices also had its intended effect. Immediately after the Publisher Defendants switched Amazon to an agency model, they increased the Kindle prices of 85.7% of their new releases and 96.8% of their *New York Times* bestsellers to within 1% of the Apple price caps. They also increased the prices of their other ebook offerings. Within two weeks of the move to agency, the weighted average price of the Publisher Defendants' ebooks—which accounted for just under half of all ebook sales in 2010—had increased by 18.6%, while the prices for Random House and other publishers remained relatively stable.

This sudden increase in prices reduced ebook sales by the Publisher Defendants and proved to be durable. One analysis compared two-week periods before and after the Publisher Defendants took control over pricing and found that they sold 12.9% fewer ebooks after the switch. Another expert for Plaintiffs conducted a regression analysis, which showed that, over a six-month period following the switch, the Publisher Defendants sold 14.5% fewer ebooks than they would have had the price increases not occurred. Nonetheless, ebook prices for the Publisher Defendants over those six months, controlling for other factors, remained 16.8% higher than before the switch. And even Apple's expert produced a chart showing that the Publisher Defendants' prices for new releases, bestsellers, and other offerings remained elevated a full two years after they took control over pricing.

Apple points out that, in the two years following the conspiracy, prices across the ebook market as a whole fell slightly and total output increased. However, when the agreement at issue involves price fixing, the Supreme Court has consistently held that courts need not even conduct an extensive analysis of "market power" or a "detailed market analysis" to demonstrate its anticompetitive character. *FTC v. Ind. Fed'n of Dentists*, 476 U.S. 447, 460 (1986). The district court's assessment of Apple's and the Publisher Defendants' motives, coupled with the unambiguous increase in the prices of their ebooks, was sufficient to confirm that price fixing was the goal, and the result, of the conspiracy.

Moreover, Apple's evidence regarding long-term growth and prices in the ebook industry is not inconsistent with the conclusion that the price-fixing conspiracy succeeded in actually raising prices. *** No court can presume to know the proper price of an ebook, but the long judicial experience applying the Sherman Act has shown that "[a]ny combination which tampers with price structures . . . would be directly interfering with the free play of market forces." *Socony-Vacuum Oil*, 310 U.S. at 221. By setting new, durable prices through collusion rather than competition, Apple and the Publisher Defendants imposed their view of proper pricing, supplanting the market's free play. This evidence, viewed in conjunction with the district court's findings as to and analysis of the conspiracy's history and purpose, is sufficient to support the conclusion that the agreement to raise ebook prices was a *per se* unlawful price-fixing conspiracy.

2. Rule of Reason

As explained above, neither Apple nor the dissent has presented any particularly strong reason to think that the conspiracy we have identified should be spared *per se* condemnation. My concurring colleague would therefore affirm the district court's decision on that basis alone. I, too, believe that *per se* condemnation is appropriate in this case and view Apple's sloganeering references to "innovation" as a distraction from the straightforward nature of the conspiracy proven at trial. Nonetheless, I am mindful of Apple's argument that the nascent ebook industry has some new and unusual features and that the *per se* rule is not fit for "business relationships where the economic impact of certain practices is not immediately obvious." *Leegin*, 551 U.S. at 887 (internal quotation marks omitted). I therefore assume, for the sake of argument, that it is appropriate to apply the rule of reason and to analyze the competitive effects of Apple's horizontal agreement with the Publisher Defendants.

Notably, however, the ample evidence here concerning the purpose and effects of Apple's agreement with the Publisher Defendants affects the scope of the rule-of-reason analysis called for in this case. Under a prototypically robust rule-of-reason analysis, the plaintiff must demonstrate an "*actual* adverse effect" on competition in the relevant market before the "burden shifts to the defendants to offer evidence of the pro-competitive effects of their agreement." *Geneva Pharms. Tech. Corp. v. Barr Labs. Inc.*, 386 F.3d 485, 506-07 (2d Cir. 2004) (internal quotation marks omitted). The factfinder then weighs the competing evidence "to determine if the effects of the challenged restraint tend to promote or destroy competition."*Id.* at 507. ***

Apple's initial argument that its agreement with the Publisher Defendants was procompetitive (an argument presented principally in an amicus brief adopted wholeheartedly by the dissent) is that by eliminating Amazon's $9.99 price point, the agreement enabled Apple and other ebook retailers to enter the market and challenge Amazon's dominance. But this defense—that higher prices enable more competitors to enter a market—is no justification for a horizontal price-fixing conspiracy. ***

From this perspective, the dissent's contention that Apple could not have entered the ebook retail market without the price-fixing conspiracy, because it could not have profited either by charging more than Amazon or by following Amazon's pricing, is a complete non sequitur. The posited dilemma is the whole point of competition: if Apple could not turn a profit by selling new releases and bestsellers at $9.99, or if it could not make the iBookstore and iPad so attractive that consumers would pay more than $9.99 to buy and read those ebooks on its platform, then there was no place for its platform in the ebook retail market. Neither the district court nor Plaintiffs had an obligation to identify a "viable alternative" for Apple's profitable entry because Apple had no entitlement to enter the market on its preferred terms.

*** In actuality, the district court's fact-finding illustrates that Apple organized the Publisher Defendants' price-fixing conspiracy not because it was a necessary precondition to market entry, but because it was a convenient bargaining chip. Apple was operating under a looming deadline and recognized that, by aligning its interests with those of the Publisher Defendants and offering them a way to raise prices across the ebook market, it could gain quick entry into the market on extremely favorable terms, including the elimination of retail price competition from Amazon. But the offer to orchestrate a horizontal conspiracy to raise prices is not a legitimate way to sweeten a deal.

*** To summarize, the district court made no finding that a horizontal conspiracy to eliminate price competition in the ebook retail market was necessary to bring more retailers into the market to challenge Amazon, nor does the record evidence support this conclusion. More importantly, even if there *were* such evidence, the fact that a competitor's entry into the market is contingent on a horizontal conspiracy to raise prices only means (absent monopolistic conduct by the market's dominant firm, which cannot lawfully be challenged by collusion) that the competitor is inefficient, *i.e.*, that its entry will not enhance consumer welfare. For these reasons, I would reject the argument that Apple's entry into the market represented an important procompetitive benefit of the horizontal price-fixing conspiracy it orchestrated.

*** Accordingly, I agree with the district court's decision that, under the rule of reason, the horizontal agreement to raise consumer-facing ebook prices that Apple orchestrated

unreasonably restrained trade. But given the clear applicability of the *per se* rule in this context, the analysis here is largely offered in response to the dissent. I also confidently join with my concurring colleague in affirming the district court's conclusion that Apple committed a *per se* violation of § 1 of the Sherman Act.

CONCLUSION

We have considered the appellants' remaining arguments and find them to be without merit. Because we conclude that Apple violated § 1 of the Sherman Act by orchestrating a horizontal conspiracy among the Publisher Defendants to raise ebook prices, and that the injunctive relief ordered by the district court is appropriately designed to guard against future anticompetitive conduct, the judgment of the district court is AFFIRMED.

LOHIER, Circuit Judge, Concurring in part and Concurring in the judgment: I join in the majority opinion except for part II.B.2 relating to the application of the rule of reason. In my view, Apple's appeal rises or falls based on the application of the *per se* rule. That rule clearly applies to the central agreement in this case (and the only agreement alleged to be unlawful): the publishers' horizontal agreement to fix ebook prices. ***

DENNIS JACOBS, Circuit Judge, Dissenting. I respectfully dissent. This appeal is taken by Apple Inc. from a judgment in the United States District Court for the Southern District of New York (Cote, J.), awarding an antitrust injunction in favor of the United States, 31 states, the District of Columbia, and the Commonwealth of Puerto Rico. The plaintiffs' claims are premised on Apple's conduct as a prospective retailer of e-books. I vote to reverse. *** In the course of this litigation, three theories have been offered for how Apple could have entered the e-book market on less restrictive terms. Each theory misapprehends the market or the law, or both. The absence of alternative means bespeaks the reasonableness of the measures Apple took.

Theory 1: Apple could have competed with Amazon on Amazon's terms, using wholesale contracts and below-cost pricing.

This was never an option. The district court found as fact that: a new entrant into the e-book retail market "would run the risk of losing money if it tried or was forced to match Amazon's pricing to remain competitive," *Apple I*, 952 F. Supp. 2d at 658; Apple was "not willing" to engage in below-cost pricing, *Id.* at 657; and Apple could have avoided this money-losing price structure simply by forgoing entry to the market, see *Id.* at 659. Even if Apple had been willing to adopt below-cost pricing, the result at best would have been duopoly, and the hardening of the existing barrier to entry. Antitrust law disfavors a durable duopoly nearly as much as monopoly itself.

Theory 2: Apple could have entered the e-book retail market using the wholesale model and charged higher prices than Amazon's.

The district court foreclosed this theory as well; it found that Apple refused to impair its brand by charging "what it considered unrealistically high prices." *Apple I*, 952 F. Supp. 2d at 659. Even if Apple had been willing to tarnish its brand by offering bad value for money, the notion that customers would actually have bought e-books from Apple at the higher price defies the law of demand. Higher prices may stimulate sales of certain wines and perfumes—not e-books.

Nor could Apple justify higher prices for the e-books by competing on the basis of its new hardware, the iPad, because there is inter-operability among platforms. And if Apple

had attempted to pursue this hardware-based competition by programming its iPad to run the iBookstore but to reject Amazon's Kindle application, Apple might have been exposed to an entirely different antitrust peril. See *United States v. Microsoft Corp.*, 253 F.3d 34, 50-80 (D.C. Cir. 2001) (en banc); Google Android, No. 40099 (Eur. Comm'n Apr. 15, 2015) (antitrust proceedings brought by European Commissioner for Competition against Google for favoring Google's own applications on mobile devices that use Google's operating system).

Theory 3: Apple could have asked the Department of Justice to act against Amazon's monopoly.

Counsel for the United States actually proposed this at oral argument. At the same time, however, he conceded that the Department of Justice had already "noticed" Amazon's e-book pricing and had chosen not to challenge it because the government "regarded it as good for consumers." Any request from Apple would therefore have been futile. True, Apple could not have known that the Antitrust Division would have adopted the position that below-cost pricing is not a concern of antitrust policy: who could have guessed that the government would adopt a policy that is primitive as a matter of antitrust doctrine and illiterate as a matter of economics? Nevertheless, hindsight reveals that government antitrust enforcement against Amazon was not an option.

More fundamentally, litigation is not a *market* alternative. This observation has especial force in markets that are undergoing rapid technological advance, where the competitive half-life of a product is considerably more brief than the span of antitrust litigation. A requirement that potential market entrants litigate instead of enter the market on restrictive (but legal and reasonable) terms, would license monopoly for the duration.

Apple took steps to compete with a monopolist and open the market to more entrants, generating only minor competitive restraints in the process. Its conduct was eminently reasonable; no one has suggested a viable alternative. "What could be more perverse than an antitrust doctrine that discouraged new entry into highly concentrated markets?" *In re Text Messaging Antitrust Litig.*, 782 F.3d 867, 874 (7th Cir. 2015).

Application of the rule of reason easily absolves Apple of antitrust liability. That is why at oral argument the government analogized this case to a drug conspiracy, in which every player is a criminal—at every level, on every axis, whether big or small, whether new entrant or recidivist. The government found the analogy useful—and necessary—because in an all-criminal industry there is no justification or harbor under a rule of reason. ***

European Commission - Press release

Antitrust: Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service

Brussels, 27 June 2017

The European Commission has fined Google €2.42 billion for breaching EU antitrust rules. Google has abused its market dominance as a search engine by giving an illegal advantage to another Google product, its comparison shopping service.

The company must now end the conduct within 90 days or face penalty payments of up to 5% of the average daily worldwide turnover of Alphabet, Google's parent company.

Commissioner Margrethe **Vestager,** in charge of competition policy, said: "*Google has come up with many innovative products and services that have made a difference to our lives. That's a good thing. But Google's strategy for its comparison shopping service wasn't just about attracting customers by making its product better than those of its rivals. Instead, Google abused its market dominance as a search engine by promoting its own comparison shopping service in its search results, and demoting those of competitors.*

What Google has done is illegal under EU antitrust rules. It denied other companies the chance to compete on the merits and to innovate. And most importantly, it denied European consumers a genuine choice of services and the full benefits of innovation."

Google's strategy for its comparison shopping service

Google's flagship product is the Google search engine, which provides search results to consumers, who pay for the service with their data. Almost 90% of Google's revenues stem from adverts, such as those it shows consumers in response to a search query.

In 2004 Google entered the separate market of comparison shopping in Europe, with a product that was initially called "Froogle", re-named "Google Product Search" in 2008 and since 2013 has been called "Google Shopping". It allows consumers to compare products and prices online and find deals from online retailers of all types, including online shops of manufacturers, platforms (such as Amazon and eBay), and other re-sellers.

When Google entered comparison shopping markets with Froogle, there were already a number of established players. Contemporary evidence from Google shows that the company was aware that Froogle's market performance was relatively poor (one internal document from 2006 stated "*Froogle simply doesn't work*").

Comparison shopping services rely to a large extent on traffic to be competitive. More traffic leads to more clicks and generates revenue. Furthermore, more traffic also attracts more retailers that want to list their products with a comparison shopping service. Given Google's dominance in general internet search, its search engine is an important source of traffic for comparison shopping services.

From 2008, Google began to implement in European markets a fundamental change in strategy to push its comparison shopping service. This strategy relied on Google's dominance in general internet search, instead of competition on the merits in comparison shopping markets:

- **Google has systematically given prominent placement to its own comparison shopping service**: when a consumer enters a query into the Google search engine in relation to which Google's comparison shopping service wants to show results, these are displayed at or near the top of the search results.
- **Google has demoted rival comparison shopping services in its search results**: rival comparison shopping services appear in Google's search results on the basis of Google's generic search algorithms. Google has included a number of criteria in these algorithms, as a result of which rival comparison shopping services are demoted. Evidence shows that even the most highly ranked rival service appears on average only on page four of Google's search results, and others appear even further down. Google's own comparison shopping service is not subject to Google's

generic search algorithms, including such demotions.

As a result, Google's comparison shopping service is much more visible to consumers in Google's search results, whilst rival comparison shopping services are much less visible.

The evidence shows that consumers click far more often on results that are more visible, i.e. the results appearing higher up in Google's search results. Even on a desktop, the ten highest-ranking generic search results on page 1 together generally receive approximately 95% of all clicks on generic search results (with the top result receiving about 35% of all the clicks). The first result on page 2 of Google's generic search results receives only about 1% of all clicks. This cannot just be explained by the fact that the first result is more relevant, because evidence also shows that moving the first result to the third rank leads to a reduction in the number of clicks by about 50%. The effects on mobile devices are even more pronounced given the much smaller screen size.

This means that by giving prominent placement only to its own comparison shopping service and by demoting competitors, Google has given its own comparison shopping service a significant advantage compared to rivals.

Breach of EU antitrust rules

Google's practices amount to an abuse of Google's dominant position in general internet search by stifling competition in comparison shopping markets.

Market dominance is, as such, not illegal under EU antitrust rules. However, dominant companies have a special responsibility not to abuse their powerful market position by restricting competition, either in the market where they are dominant or in separate markets.

- Today's Decision concludes that **Google is dominant in general internet search markets throughout the European Economic Area** (EEA), i.e. in all 31 EEA countries. It found Google to have been dominant in general internet search markets in all EEA countries since 2008, except in the Czech Republic where the Decision has established dominance since 2011. This assessment is based on the fact that Google's search engine has held very high market shares in all EEA countries, exceeding 90% in most. It has done so consistently since at least 2008, which is the period investigated by the Commission. There are also high barriers to entry in these markets, in part because of network effects: the more consumers use a search engine, the more attractive it becomes to advertisers. The profits generated can then be used to attract even more consumers. Similarly, the data a search engine gathers about consumers can in turn be used to improve results.
- **Google has abused this market dominance by giving its own comparison shopping service an illegal advantage**. It gave prominent placement in its search results only to its own comparison shopping service, whilst demoting rival services. It stifled competition on the merits in comparison shopping markets.

  Google introduced this practice in all 13 EEA countries where Google has rolled out its comparison shopping service, starting in January 2008 in Germany and the United Kingdom. It subsequently extended the practice to France in October 2010, Italy, the Netherlands, and Spain in May 2011, the Czech Republic in February 2013 and Austria, Belgium, Denmark, Norway, Poland and Sweden in November 2013.

The effect of Google's illegal practices

Google's illegal practices have had a significant impact on competition between Google's own comparison shopping service and rival services. They allowed Google's comparison shopping service to make significant gains in traffic at the expense of its rivals and to the detriment of European consumers.

Given Google's dominance in general internet search, its search engine is an important source of traffic. As a result of Google's illegal practices, traffic to Google's comparison shopping service increased significantly, whilst rivals have suffered very substantial losses of traffic on a lasting basis.

- Since the beginning of each abuse, Google's comparison shopping service has increased its traffic 45-fold in the United Kingdom, 35-fold in Germany, 19-fold in France, 29-fold in the Netherlands, 17-fold in Spain and 14-fold in Italy.
- Following the demotions applied by Google, traffic to rival comparison shopping services on the other hand dropped significantly. For example, the Commission found specific evidence of sudden drops of traffic to certain rival websites of 85% in the United Kingdom, up to 92% in Germany and 80% in France. These sudden drops could also not be explained by other factors. Some competitors have adapted and managed to recover some traffic but never in full.

In combination with the Commission's other findings, this shows that Google's practices have stifled competition on the merits in comparison shopping markets, depriving European consumers of genuine choice and innovation.

Evidence gathered

In reaching its Decision, the Commission has gathered and comprehensively analysed a broad range of evidence, including:

1) contemporary documents from both Google and other market players;

2) very significant quantities of real-world data including 5.2 Terabytes of actual search results from Google (around 1.7 billion search queries);

3) experiments and surveys, analysing in particular the impact of visibility in search results on consumer behaviour and click-through rates;

4) financial and traffic data which outline the commercial importance of visibility in Google's search results and the impact of being demoted; and

5) an extensive market investigation of customers and competitors in the markets concerned (the Commission addressed questionnaires to several hundred companies).

Consequences of the Decision

The Commission's fine of €2 424 495 000 takes account of the duration and gravity of the infringement. In accordance with the Commission's 2006 Guidelines on fines (see press release and

MEMO), the fine has been calculated on the basis of the value of Google's revenue from its comparison shopping service in the 13 EEA countries concerned.

The Commission Decision requires Google to stop its illegal conduct within 90 days of the Decision and refrain from any measure that has the same or an equivalent object or effect. In particular, the Decision orders Google to comply with the simple principle of giving **equal treatment** to rival comparison shopping services and its own service:

Google has to apply the same processes and methods to position and display rival comparison shopping services in Google's search results pages as it gives to its own comparison shopping service.

It is Google's sole responsibility to ensure compliance and it is for Google to explain how it intends to do so. Regardless of which option Google chooses, the Commission will monitor Google's compliance closely and Google is under an obligation to keep the Commission informed of its actions (initially within 60 days of the Decision, followed by periodic reports).

If Google fails to comply with the Commission's Decision, it would be liable for non-compliance payments of up to 5% of the average daily worldwide turnover of Alphabet, Google's parent company. The Commission would have to determine such non-compliance in a separate decision, with any payment backdated to when the non-compliance started.

Finally, Google is also liable to face civil actions for damages that can be brought before the courts of the Member States by any person or business affected by its anti-competitive behaviour. The new EU Antitrust Damages Directive makes it easier for victims of anti-competitive practices to obtain damages.

Other Google cases

The Commission has already come to the preliminary conclusion that Google has abused a dominant position in two other cases, which are still being investigated. These concern:

1) the Android operating system, where the Commission is concerned that Google has stifled choice and innovation in a range of mobile apps and services by pursuing an overall strategy on mobile devices to protect and expand its dominant position in general internet search; and

2) AdSense, where the Commission is concerned that Google has reduced choice by preventing third-party websites from sourcing search ads from Google's competitors.

The Commission also continues to examine Google's treatment in its search results of other specialised Google search services. Today's Decision is a precedent which establishes the framework for the assessment of the legality of this type of conduct. At the same time, it does not replace the need for a case-specific analysis to account for the specific characteristics of each market.

Background

See also Factsheet.

Today's Decision is addressed to Google Inc. and Alphabet Inc., Google's parent company.

Article 102 of the Treaty on the Functioning of the European Union (TFEU) and Article 54 of the EEA Agreement prohibit abuse of a dominant position. Today's Decision follows two Statements of Objections sent to Google in April 2015 and July 2016.

More information on this investigation is available on the Commission's competition website in the public case register under the case number 39740.

IP/17/1784

Press contacts:

Ricardo CARDOSO (+32 2 298 01 00)
Yizhou REN (+32 2 299 48 89)

General public inquiries: Europe Direct by phone 00 800 67 89 10 11 or by email

Attachments

Infographic Google_en.pdf

European Commission - Press release

Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google's search engine

Brussels, 18 July 2018

The European Commission has fined Google €4.34 billion for breaching EU antitrust rules. Since 2011, Google has imposed illegal restrictions on Android device manufacturers and mobile network operators to cement its dominant position in general internet search.

Google must now bring the conduct effectively to an end within 90 days or face penalty payments of up to 5% of the average daily worldwide turnover of Alphabet, Google's parent company.

Commissioner Margrethe **Vestager**, in charge of competition policy, said: "*Today, mobile internet makes up more than half of global internet traffic. It has changed the lives of millions of Europeans. Our case is about three types of restrictions that Google has imposed on Android device manufacturers and network operators to ensure that traffic on Android devices goes to the Google search engine. In this way, Google has used Android as a vehicle to cement the dominance of its search engine. These practices have denied rivals the chance to innovate and compete on the merits. They have denied European consumers the benefits of effective competition in the important mobile sphere. This is illegal under EU antitrust rules.*"

In particular, Google:

- has required manufacturers to pre-install the Google Search app and browser app (Chrome), as a condition for licensing Google's app store (the Play Store);
- made payments to certain large manufacturers and mobile network operators on condition that they exclusively pre-installed the Google Search app on their devices; and
- has prevented manufacturers wishing to pre-install Google apps from selling even a single smart mobile device running on alternative versions of Android that were not approved by Google (so-called "Android forks").

Google's strategy and the scope of the Commission investigation

Google obtains the vast majority of its revenues via its flagship product, the Google search engine. The company understood early on that the shift from desktop PCs to mobile internet, which started in the mid-2000s, would be a fundamental change for Google Search. So, Google developed a strategy to anticipate the effects of this shift, and to make sure that users would continue to use Google Search also on their mobile devices.

In 2005, Google bought the original developer of the Android mobile operating system and has continued to develop Android ever since. Today, about 80% of smart mobile devices in Europe, and worldwide, run on Android.

When Google develops a new version of Android it publishes the source code online. This in principle allows third parties to download and modify this code to create Android forks. The openly accessible Android source code covers basic features of a smart mobile operating system but not Google's proprietary Android apps and services. Device manufacturers who wish to obtain Google's proprietary Android apps and services need to enter into contracts with Google, as part of which Google imposes a number of restrictions. Google also entered into contracts and applied some of these restrictions to certain large mobile network operators, who can also determine which apps and services are installed on devices sold to end users.

The Commission decision concerns three specific types of contractual restrictions that Google has imposed on device manufacturers and mobile network operators. These have enabled Google to use Android as a vehicle to cement the dominance of its search engine. In other words, the Commission decision does not question the open source model or the Android operating system as such.

Google's dominance

The Commission decision concludes that Google is dominant in the markets for **general internet search services**, **licensable smart mobile operating systems** and **app stores for the Android**

mobile operating system.

General search services

Google is dominant in the national markets for general internet search throughout the European Economic Area (EEA), i.e. in all 31 EEA Member States. Google has shares of more than 90% in most EEA Member States. There are high barriers to enter these markets. This has also been concluded in the Google Shopping decision of June 2017.

Smart mobile operating systems available for licence

Android is a licensable smart mobile operating system. This means that third party manufacturers of smart mobile devices can license and run Android on their devices.

Through its control over Android, Google is dominant in the worldwide market (excluding China) for licensable smart mobile operating systems, with a market share of more than 95%. There are high barriers to entry in part due to network effects: the more users use a smart mobile operating system, the more developers write apps for that system – which in turn attracts more users. Furthermore, significant resources are required to develop a successful licensable smart mobile operating system.

As a licensable operating system, Android is different from operating systems exclusively used by vertically integrated developers (like Apple iOS or Blackberry). Those are not part of the same market because they are not available for licence by third party device manufacturers.

Nevertheless, the Commission investigated to what extent competition for end users (downstream), in particular between **Apple** and Android devices, could indirectly constrain Google's market power for the licensing of Android to device manufacturers (upstream). The Commission found that this competition does not sufficiently constrain Google upstream for a number of reasons, including:

- end user purchasing decisions are influenced by a variety of factors (such as hardware features or device brand), which are independent from the mobile operating system;
- Apple devices are typically priced higher than Android devices and may therefore not be accessible to a large part of the Android device user base;
- Android device users face switching costs when switching to Apple devices, such as losing their apps, data and contacts, and having to learn how to use a new operating system; and
- even if end users were to switch from Android to Apple devices, this would have limited impact on Google's core business. That's because Google Search is set as the default search engine on Apple devices and Apple users are therefore likely to continue using Google Search for their queries.

App stores for the Android mobile operating system

Google is dominant in the worldwide market (excluding China) for app stores for the Android mobile operating system. Google's app store, the Play Store, accounts for more than 90% of apps downloaded on Android devices. This market is also characterised by high barriers to entry. For similar reasons to those already listed above, Google's app store dominance is not constrained by Apple's App Store, which is only available on iOS devices.

Breach of EU antitrust rules

Market dominance is, as such, not illegal under EU antitrust rules. However, dominant companies have a special responsibility not to abuse their powerful market position by restricting competition, either in the market where they are dominant or in separate markets.

Google has engaged in three separate types of practices, which all had the aim of cementing Google's dominant position in general internet search.

1) Illegal tying of Google's search and browser apps

Google offers its mobile apps and services to device manufacturers as a bundle, which includes the Google Play Store, the Google Search app and the Google Chrome browser. Google's licensing conditions make it impossible for manufacturers to pre-install some apps but not others.

As part of the Commission investigation, device manufacturers confirmed that the Play Store is a "must-have" app, as users expect to find it pre-installed on their devices (not least because they cannot lawfully download it themselves).

The Commission decision has concluded that Google has engaged in two instances of illegal tying:

- First, the **tying of the Google Search app**. As a result, Google has ensured that its Google Search app is pre-installed on practically all Android devices sold in the EEA. Search apps represent an important entry point for search queries on mobile devices. The Commission has found this tying conduct to be illegal as of 2011, which is the date Google became dominant in the market for app stores for the Android mobile operating system.

- Second, the **tying of the Google Chrome browser**. As a result, Google has ensured that its mobile browser is pre-installed on practically all Android devices sold in the EEA. Browsers also represent an important entry point for search queries on mobile devices and Google Search is the default search engine on Google Chrome. The Commission found this tying conduct to be illegal as of 2012, which is the date from which Google has included the Chrome browser in its app bundle.

Pre-installation can create a *status quo* bias. Users who find search and browser apps pre-installed on their devices are likely to stick to these apps. For example, the Commission has found evidence that the Google Search app is consistently used more on Android devices, where it is pre-installed, than on Windows Mobile devices, where users must download it. This also shows that users do not download competing apps in numbers that can offset the significant commercial advantage derived through pre-installation. For example, in 2016:

- on **Android** devices (with Google Search and Chrome pre-installed) more than 95% of all search queries were made via Google Search; and
- on **Windows Mobile** devices (Google Search and Chrome are not pre-installed) less than 25% of all search queries were made via Google Search. More than 75% of search queries happened on Microsoft's Bing search engine, which is pre-installed on Windows Mobile devices.

Google's practice has therefore reduced the incentives of manufacturers to pre-install competing search and browser apps, as well as the incentives of users to download such apps. This reduced the ability of rivals to compete effectively with Google.

The Commission also assessed in detail Google's arguments that the tying of the Google Search app and Chrome browser were necessary, in particular to allow Google to monetise its investment in Android, and concluded that these arguments were not well founded. Google achieves billions of dollars in annual revenues with the Google Play Store alone, it collects a lot of data that is valuable to Google's search and advertising business from Android devices, and it would still have benefitted from a significant stream of revenue from search advertising without the restrictions.

2) Illegal payments conditional on exclusive pre-installation of Google Search

Google granted significant financial incentives to some of the largest device manufacturers as well as mobile network operators on condition that they **exclusively** pre-installed Google Search across their entire portfolio of Android devices. This harmed competition by significantly reducing their incentives to pre-install competing search apps.

The Commission's investigation showed that a rival search engine would have been unable to compensate a device manufacturer or mobile network operator for the loss of the revenue share payments from Google and still make profits. That is because, even if the rival search engine was pre-installed on only some devices, they would have to compensate the device manufacturer or mobile network operator for a loss of revenue share from Google across all devices.

In line with the recent EU court ruling in Intel, the Commission has considered, amongst other factors, the conditions under which the incentives were granted, their amount, the share of the market covered by these agreements and their duration.

On this basis, the Commission found Google's conduct to be illegal between 2011 and 2014. In 2013 (after the Commission started to look into this issue), Google started to gradually lift the requirement. The illegal practice effectively ceased as of 2014.

The Commission also assessed in detail Google's arguments that the granting of financial incentives for exclusive pre-installation of Google Search across the entire portfolio of Android devices was necessary. In this regard, the Commission dismissed Google's claim that payments based on exclusivity were necessary to convince device manufacturers and mobile network operators to produce devices for the Android ecosystem.

3) Illegal obstruction of development and distribution of competing Android operating systems

Google has prevented device manufacturers from using any alternative version of Android that was not approved by Google (Android forks). In order to be able to pre-install on their devices Google's proprietary apps, including the Play Store and Google Search, manufacturers had to commit not to develop or sell even a single device running on an Android fork. The Commission found that this conduct was abusive as of 2011, which is the date Google became dominant in the market for app stores for the Android mobile operating system.

This practice reduced the opportunity for devices running on Android forks to be developed and sold. For example, the Commission has found evidence that Google's conduct prevented a number of large manufacturers from developing and selling devices based on Amazon's Android fork called "Fire OS".

In doing so, Google has also closed off an important channel for competitors to introduce apps and services, in particular general search services, which could be pre-installed on Android forks. Therefore,

Google's conduct has had a direct impact on users, denying them access to further innovation and smart mobile devices based on alternative versions of the Android operating system. In other words, as a result of this practice, it was Google – and not users, app developers and the market – that effectively determined which operating systems could prosper.

The Commission also assessed in detail Google's arguments that these restrictions were necessary to prevent a "fragmentation" of the Android ecosystem, and concluded that these were not well founded. First, Google could have ensured that Android devices using Google proprietary apps and services were compliant with Google's technical requirements, without preventing the emergence of Android forks. Second, Google did not provide any credible evidence that Android forks would be affected by technical failures or fail to support apps.

The effects of Google's illegal practices

The Commission decision concludes that these three types of abuse form part of an overall strategy by Google to cement its dominance in general internet search, at a time when the importance of mobile internet was growing significantly.

First, Google's practices have denied rival search engines the possibility to compete on the merits. The tying practices ensured the pre-installation of Google's search engine and browser on practically all Google Android devices and the exclusivity payments strongly reduced the incentive to pre-install competing search engines. Google also obstructed the development of Android forks, which could have provided a platform for rival search engines to gain traffic. Google's strategy has also prevented rival search engines from collecting more data from smart mobile devices, including search and mobile location data, which helped Google to cement its dominance as a search engine.

Furthermore, Google's practices also harmed competition and further innovation in the wider mobile space, beyond just internet search. That's because they prevented other mobile browsers from competing effectively with the pre-installed Google Chrome browser. Finally, Google obstructed the development of Android forks, which could have provided a platform also for other app developers to thrive.

Consequences of the decision

The Commission's fine of **€4 342 865 000** takes account of the duration and gravity of the infringement. In accordance with the Commission's 2006 Guidelines on fines (see press release and MEMO), the fine has been calculated on the basis of the value of Google's revenue from search advertising services on Android devices in the EEA.

The Commission decision requires Google to bring its illegal conduct to an end in an effective manner within 90 days of the decision.

At a minimum, Google has to stop and to not re-engage in any of the three types of practices. The decision also requires Google to refrain from any measure that has the same or an equivalent object or effect as these practices.

The decision does not prevent Google from putting in place a reasonable, fair and objective system to ensure the correct functioning of Android devices using Google proprietary apps and services, without however affecting device manufacturers' freedom to produce devices based on Android forks.

It is Google's sole responsibility to ensure compliance with the Commission decision. The Commission will monitor Google's compliance closely and Google is under an obligation to keep the Commission informed of how it will comply with its obligations.

If Google fails to ensure compliance with the Commission decision, itwould be liable for non-compliance

payments of up to 5% of the average daily worldwide turnover of Alphabet, Google's parent company. The Commission would have to determine such non-compliance in a separate decision, with any payment backdated to when the non-compliance started.

Finally, Google is also liable to face civil actions for damages that can be brought before the courts of the Member States by any person or business affected by its anti-competitive behaviour. The new EU Antitrust Damages Directive makes it easier for victims of anti-competitive practices to obtain damages.

Other Google cases

In June 2017, the Commission fined Google €2.42 billion for abusing its dominance as a search engine by giving an illegal advantage to Google's own comparison shopping service. The Commission is currently actively monitoring Google's compliance with that decision.

The Commission also continues to investigate restrictions that Google has placed on the ability of certain third party websites to display search advertisements from Google's competitors (the AdSense case). In July 2016, the Commission came to the preliminary conclusion that Google has abused its dominant position in a case concerning AdSense.

Background

Today's decision is addressed to Google LLC (previously Google Inc.) and Alphabet Inc., Google's parent company. The Commission opened proceedings concerning Google's conduct as regards the Android operating system and applications in April 2015 and sent a Statement of Objections to Google in April 2016.

Article 102 of the Treaty on the Functioning of the European Union (TFEU) and Article 54 of the EEA Agreement prohibit abuse of a dominant position.

More information on this investigation is available on the Commission's competition website, in the public case register under the case number 40099.

IP/18/4581

Press contacts:

Ricardo CARDOSO (+32 2 298 01 00)
Giulia ASTUTI (+32 2 295 53 44)

General public inquiries: Europe Direct by phone 00 800 67 89 10 11 or by email

Attachments

Google_applications_en.pdf

Clicks and More

Three quick items that may be of interest:

- *Google*. In early January, 2013, the U.S. Federal Trade Commission resolved its investigation of Google's search practices. While Google agreed to alter its practices in some ways, it avoided a formal FTC order.
- *Mergers*. Section 7 of the Clayton Act sets out the substantive statutory framework that applies to mergers in the United States. U.S. merger policy changed in important ways with the passage of the Hart-Scott-Rodino Act of 1976, which created a regime of pre-merger notification to the federal government of sizable merger transactions. The new act turned merger regulation away from litigation towards administrative negotiation. The Antitrust Division of the Department of Justice and the U.S. Federal Trade Commission have promulgated guidelines regarding how they evaluate mergers.