

EPIC GAMES v. APPLE: FORTNITE BATTLE THAT CAN CHANGE THE INDUSTRY

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Summary. When Apple Store was launched, there were 500 applications available for iPhone users. Since then, the number of applications in the App Store skyrocketed and in 2017 reached around 2.2 million. In recent years, the number of apps in the App Store is steadily declining, due to Apple's decision to remove old apps that do not function or the apps that do not follow current app guidelines. The distribution of the apps is only available through the App Store, where the only available payment processor is controlled by Apple. That places Apple in a unique position.

The case Epic Games v. Apple raises a broader discussion, whether Apple as the “gatekeeper” of Apps can restrict distribution and access to the apps in the iOS operational system, and whether that kind of activity can be deemed as a monopolist and restrictive competition in App distribution market. This paper will analyze and critically evaluate the recent lawsuit that was brought up against Apple by Epic Games. The main aspect of this analysis is whether Apple can legally restrict the developer's ability to distribute the applications through the App Store and if it does not restrict the competition.

This article is composed of several chapters. Chapter one will examine the relevant facts of the Epic and Apple lawsuit and will summarize the key arguments of this case. The second chapter will explore the relevant legislation and the relevant market related to previously mentioned proceedings and will explain how the doctrine of the essential facility might affect the case. Chapter three will delve into similar cases brought up earlier and will cover the distribution of digital goods. Chapter four will provide conclusions and the paths moving forward.

The object of the paper is to perform a detailed analysis of the case. The purpose of the paper is an assessment of the relevant facts and legal framework regarding Epic's claim, as well as analyze the topics of foreclosure and dominance in the market. To write this paper several academic writing methods such as descriptive to provide readers with relevant legislation and inform them about relevant facts of the case, also analytical to form the readers' opinions regarding the recent events and activities of both sides of the suit, also a comparative to compare different legal frameworks in the United States of America and European Union regarding the regulation of monopoly were used. There is no doubt this topic has enormous relevance because of its' possible after-effects. Epic's claim already has an impact not only on Apple but also on the whole app development and distribution industry of digital goods and might create a precedent to the similar cases. Currently, this claim is only discussed in the media, and there is no precedent. This article will not give a clear answer to how this lawsuit will be resolved, because it mainly depends on court interpretation of the relevant market. We would rather give a few alternative solutions to this case.

Keywords: antitrust, monopoly, foreclosure, restriction of competition, App market.

1. Merits of the Case

Epic Games, Inc. is an American video game and software developer located in Cary, North Carolina. The company is best known for the video game Fortnite, where the player is transported to a post-apocalyptic, zombie-infested world, which has been released in July 2017 and has 350 million players across the globe. On the morning of August 13, 2020, Epic Games released an update of the previously mentioned game and implemented a new feature for users to purchase V-Bucks (Fortnite's electronic currency) bypassing Apple's payment system. They added a direct payment option to Fortnite for iOS users, giving players the option to use Epic's direct payment system instead of using Apple's payment processor.

Rather than tolerate this, Apple responded by removing the Fortnite game from the App Store. Also, Apple cut off Epic's access to all development tools necessary to create software for Apple's platforms – including for the Unreal Engine which is also controlled by Epic. Apple has never claimed Unreal Engine violated Apple policy. Millions of developers rely on the Unreal Engine to develop software, and hundreds of millions of consumers use it. Therefore, Apple is attacking not only Fortnite but the entire Epic's business.

After Apple's actions, Epic Games filed the complaint for injunctive relief to the United States District Court Northern District Of California. Sometime after the Epic claim, Apple countersued. On October 9th, 2020, the Court issued the order partly

granting and denying a motion for preliminary injunction stating that Epic Games bears the burden in asking for such extraordinary relief. Also, the court order stated that Apple is enjoined from taking adverse action against the Epic Affiliates concerning restricting, suspending, or terminating the Epic Affiliates from Apple’s Developer Program. This preliminary injunction shall remain in effect during this litigation unless the Epic Affiliates breach any of their governing agreements with Apple, or the operative App Store guidelines. Given the novelty and the magnitude of the issues, as well as the debate in both the academic community and society at large, the Court is unwilling to tilt the playing field in favor of one party or the other with an early ruling of the likelihood of success on the merits.

1.1. Raised arguments relating the App Store

First of all, it is important to mention that this case concerns Apple’s practices in two main markets:

- i) the distribution of software applications (“apps”);

Table No 1. *The main arguments and counterrarguments*

Epic Games	Apple
Apple imposes unreasonable and unlawful restraints to completely monopolize both markets	Competition both inside and outside the App Store is fierce at every level: for devices, platforms, and individual apps. <i>Fortnite</i> users can spend their V-Bucks in no fewer than six different mobile, PC, and game-console platforms
Apple prevents iOS users from downloading any apps from any source other than Apple’s App Store. The result – developers are prevented from selling or distributing iOS apps unless they use App Store, and accede to Apple’s oppressive terms and conditions	Epic Games demanded the right to coopt the App Store to deliver an Epic Games Store app, in another bid to line Epic’s pockets at Apple’s expense and fundamentally change the way Apple has run its App Store business for over a decade on the operating system for iPhones and iPads
Apple exacts an oppressive 30% tax (in some cases – 15%) on the sale of every app	The commission reflects the immense value of the App Store, which is more than the sum of its parts and includes Apple’s technology, tools, software for app development and testing, marketing efforts, platinum-level customer service, and distribution of developers’ app and digital content
Apple coerces all app developers who wish to use its App Store – the only means with which to distribute apps to iOS users – to use exclusively Apple’s own payment processing platform for all in app purchases (Apple requires developers to agree they will not even offer users the choice of additional payment processing options alongside Apple’s; prevents even mentioning to users the option of buying the same content outside of the app)	iOS In-App Payment Processing Market is simply practical, efficient, hardware-integrated, and consumer-friendly way by which Apple collects its contractually agreed-upon commission on paid transactions. Apple manages all aspects of the transaction on behalf of the developer—from offering an extensive library of tools for app development, to the promotion and marketing of apps within the App Store in order to provide safe environment to download apps onto customers’ Apple devices without compromising privacy, security or functionality
Epic would provide a competing app store on iOS devices, which would allow iOS users to download apps in an innovative, curated store and would provide users the choice to use Epic’s or another third-party’s in-app payment processing tool	Blocking third-party app distribution platforms is necessary to enforce privacy and security safeguards. Business practices that Epic decries as exclusionary and restrictive – including “technical restrictions” on the App Store that have existed since it debuted in 2008 – have vastly increased output and made the App Store an engine of innovation
Epic is not seeking monetary compensation; Epic is seeking injunctive relief to allow fair competition	Epic’s lawsuit is nothing more than a basic disagreement over money. The lawsuit is a way for Epic’s demand for special treatment after Apple rejected Epic’s requests to make a special deal

ii) the processing of consumers' payments for digital content used within iOS mobile apps ("in-app content").

Therefore, these are the main aspects of the case that will be analyzed in this paper. Epic claims that these markets should be understood as a single market where Apple acts as a monopolist. Apple argues that these markets are separate and believes the processing of consumers' payments is not inextricably linked with apps and is related to App Store functionality. Also, there are a lot of various arguments in the claim and counterclaim raised. The table below summarizes the main arguments stated in Epic's claim and Apple's counterclaim.

As the table shows, two main reasons for the disagreement could be raised. One of the reasons why Epic decided to sue Apple is the size of commission Apple takes. Every

Table No. 2. Comparison of app development platforms

	Data Collection	Payments	Distribution	Pricing	Revenue cuts
Apple iOS	Collected data must be secure, paid functionality must not require a user to grant access to his data	Apps cannot use their own mechanisms to unlock functionality. Also, their metadata cannot include buttons, external links, that direct customers to purchasing mechanisms other than in-app purchase	Developer cannot modify, translate, reproduce, distribute, or create derivative works of the app or any part thereof. Developer shall not rent, lease, loan, sell, sublicense, assign or otherwise transfer any rights in the app	The Apple Developer Program annual fee is 99 USD and the Apple Developer Enterprise Program annual fee is 299 USD, in local currency where available. Prices may vary by region and are listed in local currency during the enrollment process	Developers who bring in App Store revenue of up to \$1 million each year will pay only a 15% fee for the following calendar year—until they hit \$1 million. After that, the rate goes back up to 30%
Google Play	Apps may only request permissions that are necessary to implement current features or services in app that are promoted in app's Play Store listing.	The entity authorized by Google to provide services that enable Developers with Payment Accounts to be paid for Products distributed via Google Play	Developer may not use Google Play to distribute or make available any Product that has a purpose that facilitates the distribution of software applications and games for use on Android devices outside of Google Play	One-time registration fee of 25 USD	Google takes a 30% cut of all software sales going through the Play Store
PlayStation	Developer shall, at a minimum implement measures to protect the confidentiality, security, and integrity of any Personal Information collected; provide notice to users of developer's privacy practices	Each adult account has an online wallet which can store funds and make PlayStation Store purchases. This wallet can be topped up by various payment methods. A child account can only make purchases using funds from the family manager's wallet within a monthly spending limit	Developers are allowed to publish, distribute, supply, sell, market, advertise and promote Physical Media Products directly to end-users or to third parties for distribution to end-users. Digitally Delivered Products and any subscriptions or services associated with Licensed Products shall be distributed through PlayStation Network only	PlayStation 4 game development kit costs about 2,500 USD (includes a console)	Sony is reported to take a 30% cut from games sold in the PlayStation Store, though the split isn't publicly disclosed.

transaction in App Store is done by Apple Pay, a payment processor which is control by Apple. Epic claims that Apple imposes unreasonable and unlawful restraints to completely monopolize both markets (mentioned above) and prevent software developers from reaching the over billion users of its mobile devices (e.g., iPhone and iPad) unless they go through a single store controlled by Apple, the App Store, where Apple exacts an oppressive (according to Epic) 30% tax on the sale of every app. As Epic stated, Apple also requires software developers who wish to sell digital in-app content to those consumers to use a single payment processing option offered by Apple, In-App Purchase, which likewise carries a 30% tax.

On the other hand, Apple is not the only platform that takes a commission from developers. The table below illustrates the differences and similarities of several app development platforms and the commission fees they take.

As the table indicates, Apple iOS is not the only platform that takes revenue cuts from developers. Apple differs developers according to the revenue they make. Google Play, another App Store of Android, and Play Station take the same “oppressive” (as Epic claims) 30% revenue cuts from all developers. Therefore, Apple is not the only platform that takes a commission. Google, PlayStation, and other platforms do the same. Apple has different criteria for app developers, so it could be concluded that the apple platform should be considered more favorable for app developers in terms of price than other platforms. Therefore, it might seem that Epic’s argument about “oppressive” 30% tax is not quite right.

On the other hand, this situation rises a way more important question - whether the dispute is actually about the revenue cuts Apple takes. As Epic stated in the claim, they are not seeking monetary compensation and are concerned about allegedly monopolistic practices of Apple, especially its’ control over the essential facility and refusal of access to it. This means Epic should focus on proving the absence of alternatives and foreclosure.

Therefore, an analysis of whether Apple restricts access to the essential facility (relevant market) will be covered further. Mentioned revenue cuts will be analyzed only as one of the criteria of the essential facility’s doctrine.

As mentioned earlier, the court stated Epic’s required preliminary injunctive relief is an extraordinary measure rarely granted. Epic’s lawsuit challenges the fundamental operation of digital platforms affecting millions of users. To resolve it, the Court must apply statutes enacted more than a century ago—to a technology context where lawyers and economists can merely hypothesize about the future of the digital frontier. While courts are charged with adjudicating cases of significant impact, they do so cautiously, and on full records, with the status quo intact. Therefore, a brief analysis of the main statutes related to competition law is needed.

2. Definition of monopoly in the United States

2.1. The legal framework of private antitrust litigation

The key pieces of antitrust legislation in the United States — the Sherman Antitrust Act of 1890 and the Clayton Act of 1914 (Sawyer, U.S. Antitrust Law, and Policy in Historical Perspective, 2019, p. 1). Section 2 of the Sherman Act makes it unlawful for any person to “monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations” (Supreme Court of the United States May 13, 2019 ruling). In other words, ever since the enactment of the Sherman Act, protecting consumers from monopoly prices has been the central concern of antitrust (Supreme Court of the United States May 13, 2019 ruling).

Also, US antitrust laws provide a basis for a dual enforcement regime, which means not only governmental agencies such as The Department of Justice or Federal Trade Commission, can launch an investigation regarding the infringement of antitrust, but also the private entities can go to private litigation.

The legal basis for commencing a private federal antitrust action is contained in the Clayton Act (*15 U.S.C. § 15(a)*) which states that “any person who shall be injured in his business or property because of anything forbidden in the antitrust laws may sue therefor in any district court of the United States”. The broad text of “any person” who has been “injured” by an antitrust violator may sue—readily covers consumers who purchase goods or services at higher-than-competitive prices from an allegedly monopolistic retailer (Supreme Court of the United States May 13, 2019 ruling). Therefore, Epic Games, Inc. is a legitimate claimant.

On the other hand, to bring an action, a party must have constitutional “standing”. Antitrust standing is limited to consumers and competitors in the relevant market and, as recognized by some courts, those whose injuries are “inextricably intertwined” with the alleged conduct. A claimant’s injury is “inextricably intertwined” with the alleged conduct if the claimant was directly targeted and its harm was “the essential component of [the defendant’s] anticompetitive scheme as opposed to an ancillary by-product of it.” (United States Court of Appeals for the Third Circuit November 12, 2015 ruling).

The claimant has the initial burden to show an agreement in restraint of trade, and that the agreement produced adverse, anti-competitive effects within a relevant product and geographic market. The claimant can meet its burden on the latter by showing the existence of actual anticompetitive effects (such as reduced output, increased prices, or reduced quality), or by showing that the defendants possessed “market power”, that is, the ability to raise prices above those that would prevail in a competitive market. If the claimant makes this initial showing, the burden of proof shifts to the defendant to show that the challenged conduct promotes a sufficiently pro-competitive objective. If the

defendant rebuts, the burden returns to the claimant to show that the chosen restraint is not reasonably necessary to achieve the stated objective (Saint-Antoine et al., 2019, page 7-8).

In the case under analysis, Apple's actions allegedly harm millions of innocent consumers worldwide — the players who enjoy Fortnite and other Epic games—which will sever their trust with Epic, a loss that is impossible to quantify. Because Apple has now removed Fortnite from the App Store, iOS users cannot receive updates and will soon be stranded in an outdated version of the game. This harm to Epic's iOS customers will irreparably harm Epic's goodwill and reputation, as Epic believes.

Besides, Apple's retaliation represents an existential threat to Epic's Unreal Engine. To retaliate against the suit, Apple decided to ban games using Epic's Unreal Engine from its storefront. Providers of OS like Apple routinely make certain software and developer tools available to software developers, for free or a small fee, to enable the development of software that will run on the OS. Apple intends to deny Epic access to that widely available material. Without that access, Epic could not develop future versions of the Unreal Engine for use on iOS. It affected developers who use the Unreal Engine on Apple products in many fields and it cannot be repaired with a monetary award. This is quintessential irreparable harm. Therefore, Epic's injury is inextricably linked to Apple's conduct aimed at restricting competition. On October 9th, 2020 the judge ruled against that ban. Yet, for a few months, the access was denied and the harm was suffered.

Moreover, Epic stated, that access to the iOS platform is an essential facility for app developers to reach more than a billion users (who are, as Epic states, relevant market) and conditioning that access on acquiescence not to compete against Apple in the In-App Payment Processing Market maintains Apple's monopoly there.

2.2. Insights on the relevant mobile Apps market

In competition law, a relevant market is a market in which a particular product or service is sold. The first step in virtually any antitrust case is to define the relevant market in which the competitive harm is alleged. A relevant market is a collection of goods or services that can profitably be sold at a monopoly price (McKenna, 2020, p. 2078).

Market power can be proven in one of two ways: either by direct evidence of market power by showing actual supra-competitive prices and restricted output or by circumstantial evidence of market power which shows that the defendant has a dominant share in a well-defined relevant market and that there are significant barriers to entry in that market (United States District Court, September 11, 2013 ruling). In this dispute, the Parties decided to describe a relevant market in two different ways.

2.2.1. Narrow definition of relevant market

Epic describes a relevant market in three main aspects:

1. Apple is a monopolist in the relevant market, which could be defined as the App Store;
2. Apple's practices are monopolistic since it contractually forbids developers to distribute iOS-compatible versions of their apps outside the App Store;
3. Apple holds a monopoly in the payment processing services market since it contractually bonds developers to use Apple's pre-installed processing service.

Useful indicators of monopoly power or the absence of such power include the size and competitive strengths of the defendant, its' competitors, supra-competitive profit levels, barriers to competition in the industry that would thwart new entry or the expansion of existing competitors, and historical trends within the industry (Holmes, Mangiaracina, 2020, p. 367, 389).

The asset of economic assumptions rooted in the current antitrust thinking does not fit into the digital economy (Shili, S, 2020, p.8). Epic keeps in mind that, Apple's platform is a two-sided business, where two sets of customers require each other for the creation of value (Jullien, 2005, p.4 & Bloodstein, 2020, p. 195) and the value to each side increases as more members participate on either side. The platform plays a crucial role in creating these indirect network effects (Edelman, 2015). App Stores facilitate the interaction between them in return for a fee, which consists of a percentage of the transaction, charged to the developer (Bostoen, Mandrescu, 2020, p. 8), who includes this fee directly in the price that is paid by consumers. This "tax" means Apple often makes more money from a developer's customer than from the developer (Financial Times, 2020). Apple uses every tactic to protect this revenue source, firstly not informing the user about it. To support this claim, an example of Facebook could be given. Apple obligated Facebook to delete the notice that Apple takes 30% of App Store commission because it violates App Store's policy by showing "irrelevant" information to users. By allowing implant direct payment measures in the apps like Fortnite., Apple's payment processor would lose its competitive advantage.

According to Epic, Apple controls a critical gateway to the modern digital economy that is the only way for iOS users to legally download apps. By using users' data, Apple has created the consumer-tailored ecosystem, where for iPhone users is impossible to switch to an alternative because the costs to switch for the alternative are over 50 times higher than a 5% app price increase. This is because Apple has been strategically designing their product portfolios and building up walls between ecosystems to increase switching costs and make it inconvenient. (Shili, 2020, p. 14). Only a few iOS users are prone to switch to other operational systems. In addition, digital platforms like the App store enjoy direct network effects, then users and app developers attract each other and vice versa (Zhu and Iansiti, 2019).

This effect creates enormous problems for developers, who want to change the status quo. To create the change, they need the critical mass of fellow developers and users, who probably face the additional cost and discomfort to quit App Store. If developers could create an alternative platform to get a benefit of the network effect, they would need to attract a critical mass of other developers and users to ensure the platform's utility. (Shili, 2020, p.20). This specific concern for two-sided platforms creates an environment where the market's efficiency, at least in digital markets, is maximized with only a few firms, each seeking control of the market.

According to this point of view, the relevant market that suffers due to lack of competition is all Apple Store consumers. First and foremost, they have to endure Apple commissions from every transaction, that is passed from the developers and experience a platform innovation regarding the in-app payments. An iOS user can't get an app from the outside App Store unless she/he decides to change the iPhone to a phone which has a different operating system. As well, the ability to make in-app purchases, only with Apple controlled payment processor denies a choice for consumers of an in-app provider. According to Epic, Apple has absolute control not only of the distribution of apps but also regarding the payment process. The app developers have only two alternatives: to put up with Apple's monopolistic practices or leave the App Store entirely.

2.2.2. Wide definition of relevant market

On the other hand, should consumers be considered as a relevant market in this case? Epic's narrow definition of the relevant market only iOS users and Apple's App Store (rather than app distribution platforms generally) rises a doubt both as a legal and factual matter. While the Supreme Court recognized in 1992 a single-brand market in *Eastman Kodak Co. v. Image Technical Services*, the case is widely considered to be an outlier in light of subsequent case law (M. Barnett, Jonathan, October 26, 2020). Courts have consistently refused to consider one brand to be a relevant market of its own when the brand competes with other potential substitutes (United States District Court, August 20, 2008 ruling).

Apple Store may fit into this category. From a different point of view than mention previously, the existing and new customers of Fortnite can still access the game through multiple platforms and on multiple devices other than the iPhone: PC (including Mac's (macOS)), laptops, game consoles, and non-iOS mobile devices. It is important to mention that Google has also removed Fortnite from the Google Play store related to added direct payment feature in the game, yet it is not directly related to the Apple Play store and it should not be considered relevant while analyzing the relevant market in this case (M. Barnett, Jonathan, October 26, 2020). Therefore, there are other alternative distribution channels where Epic Games can reach customers.

Also, as the statistics show, iOS (Apple) is far more popular in the US than, for example, the Android operational system, yet worldwide Android accounts for over 70% of mobile users while Apple share accounts for around 25%. Therefore, it is doubtful whether it could be concluded that Apple holds a monopoly over the relevant market.

In the case under analysis, Epic tries to prove the narrow definition of the relevant market while Apple holds to the wider understanding. Therefore, if the Court agrees with Epic Games that the market is all iOS mobile devices, then Epic should find no difficulties to prove that Apple has a complete (or near) monopoly in that market. But if the market includes non-iOS mobile devices, as Apple claims, Epic may lose the case. As mentioned earlier, Apple's global market share is only around 25%. In previous cases, the Court stated that it is doubtful whether 60% of the market would be enough. Therefore, 25% percent is not (Circuit Court of Appeals, Second Circuit, March 12, 1945 ruling). Consequently, the outcome of the case will depend on which of the Parties will prove the definition of the relevant market.

2.3. Is the App Store an essential facility?

Epic's claim starts with a refusal to supply access to an allegedly essential facility. Since iOS is a closed system fully controlled by Apple, access to the Apple Store is in the hands of Apple and cannot be achieved without Apple's approval. The constant refusal of Apple to grant it gives rise to a question of whether it controls access to an essential facility (Mandrescu, 2020). If the facility is truly essential in this case, a denial of access means the monopolist will be immune, at least for some time, to most instances of competition (Pitofsky *et al.*, 2002, p. 443)

In general, the essential facility doctrine has been articulated as a subset of the so-called "refusal to deal" cases which place limitations on a monopolist's ability to exclude actual or potential rivals from competing with it. The essential facilities doctrine imposes liability when one firm, which controls an essential facility, denies a second firm reasonable access to a product or service that the second firm must obtain to compete with the first. Where facilities cannot practicably be duplicated by would-be competitors, those in possession of them must allow them to be shared on fair terms. It is an illegal restraint of trade to foreclose the scarce facility.

Because the doctrine represents a divergence from the general rule that even a monopolist may choose with whom to deal, courts have established widely adopted tests that parties must meet before a court will require a monopolist to grant its competitors access to an essential asset. Specifically, to establish antitrust liability under the essential facilities doctrine, a party must prove four factors:

- (1) control of the essential facility by a monopolist;
- (2) a competitor's inability practically or reasonably to duplicate the essential facility;

- (3) the denial of the use of the facility to a competitor; and
- (4) the feasibility of providing the facility to competitors. (Pitofsky *et al.*, 2002, p. 448)

Courts rarely impose liability under the essential facilities doctrine, in large part because the doctrine requires a showing that the facility controlled by the defendant firm is truly essential to competition (Pitofsky *et al.*, 2002, p. 449), not to mention, courts have not applied the essential facilities doctrine to digital platforms. The question is whether this doctrine could be applied in this case. Therefore, it is necessary to analyze whether the Apple App Store (iOS App Distribution Market and the iOS In-App Payment Processing Market) meet the criteria mentioned above for the essential facility doctrine to be applied (Guggenberger, 2020).

2.3.1. Control of the Essential Facility

For a user to download an app into an iOS device, the app must be compatible with Apple's iOS. If an app developer wishes to use iOS, they must enter into Apple's Developer Agreement. The Developer Agreement requires developers to distribute their apps (which are compatible with iOS) solely through the App Store. Therefore, the App Store is the sole means by which a third-party developer may distribute apps to iOS devices (Ostrowski, 2020). Developers are barred from reaching over one billion iOS users unless they go through Apple's App Store, and on Apple's terms.

Also, to say whether Apple has control over the essential facility the Court should conclude which understanding of the relevant market – wider or narrower – in this case, should be applied. If the wider understanding is applied, it is doubtful whether the Apple Store should be understood as the essential facility since developers (Epic Games included) can reach a wide range of customers through other platforms. If it is concluded that the relevant market is iOS consumers (narrow understanding) then Apple Store may be considered as the essential facility.

2.3.2. Inability Practically or Reasonably to Duplicate the Essential Facility

Apple imposes several technical restrictions in the iOS App Distribution Market:

1. Apple prevents iOS users from downloading App Stores or apps directly from websites. Apple has designed technical restrictions. As a result, iOS consumers must use Apple's App Store to download any apps to their devices, app developers must use Apple's App Store to distribute their apps to consumers;
2. Apple pre-installs its App Store on the home screen of every iOS device it sells. Apple does not pre-install or allow any competing App Stores anywhere on iOS

devices. Apple also disables iOS users' ability to remove the App Store from their devices.

Consequently, it seems that it is impossible to install any other App Store in the iOS or download Apps from other sources and it makes Apple's App Store irreplaceable.

2.3.3. Denial of the Use of the Facility to Competitors

This element may appear uncomplicated when an absolute denial is involved but can become complex when a more limited denial is alleged or when parties merely disagree on the price or other terms at which access to some asset can be bought (The United States Department of Justice, p. 128, cited Werden, *supra* note 78, at 456). In this case, there is a more complex scenario since Epic Games Inc. argues not only denial of access but also revenue cuts Apple makes from App developers in its Apple Store.

Epic claimed, that by imposing a 30% tax, Apple necessarily forces developers to suffer lower profits, and app developers, who are denied choice on how to distribute their apps, are forced to fork over more of their revenue on paid apps than they would if Apple faced competition.

Apple tells a different story that there is nothing anticompetitive about charging a commission for others to use one's service. For the more than 80% of apps available to consumers for free on the App Store, this means Apple earns no commission whatsoever. Epic wants to change that in ways that would have dire consequences for the App Store ecosystem. Therefore, there is a considerable disagreement about the size of revenue cuts Apple makes from developers.

2.3.4. Feasibility of Providing the Facility to Competitors

It is technically feasible for Apple to provide access to iOS to Epic and other app distributors, and it would not interfere with or significantly inhibit Apple's ability to conduct its business. But there is another side to it.

The most recent congressional hearing on antitrust which took place on July 27, 2020, offers insight into the daily data practices of the four data titans, and, of course, Apple is one of them (Donewald *et al.*2020, p. 5). The application of the essential facilities doctrine in the contexts of digital platforms has often focused on access to the (personal) data that these platforms accumulate through the participation of their users and business partners (Bostoen, Mandrescu, 2020, p. 23).

One of the main arguments why Apple's ecosystem is closed is due to the privacy and personal data security Apple holds. It raises various discussions: on the one hand, Apple store collected data to serve the interests of stakeholders. On the other hand, with the opening of the market to third-party developers, Apple should also open up the personal data already collected.

There is no doubt data security and privacy is a sensitive topic. Data privacy laws often confer individual's certain data rights: e.g., right to access, right to delete, right to data portability, etc. And that raises another question, whether the opening of Apple's ecosystem would not harm iOS user's right to their data. On January 28, 2021, Apple CEO Tim Cook delivered remarks at Computers, Privacy & Data Protection Conference: Enforcing Rights in a Changing World. He shared that Apple is deploying powerful new requirements to advance user privacy throughout the App Store ecosystem (hereinafter – ATT). ATT is about returning control to users about giving them a say over how their data is handled. Apps that customers use every day may be passing on information about the photos they've taken, the people in their contact list, or location data. When ATT is in full effect, users will have a say over this kind of tracking. Technology does not need vast troves of personal data stitched together across dozens of websites and apps to succeed.

By being able to hold the most up-to-date information about themselves, individuals become the ultimate source of truth and thus curtail the dominance of Apple and the other three data giants. Furthermore, a user-held data model opens new opportunities to third-party developers who can build new types of applications that run on top of user-held data without being dependent on the whims of the data giants. The new data model levels the playing field among brands and service providers who would then look for new innovative ways to connect with their customers (Donewald *et al.*2020, p. 19).

In conclusion, Apple has technical measures to make iOS feasible for Epic and other apps distributors. However, the principle of proportionality between market opening and the sharing of personal users' data with third parties must be assessed. It is believed that the new Apple's privacy policy requirements will transfer more power to the users themselves, so they should decide.

Ultimately, the answer to whether Apple controls an essential facility depends on which of the parties will prove the scope of the relevant market: whether Epic will prove a narrower concept or whether the Court will believe in Apple's concept of a broader understanding of the relevant market. If the narrower concept and the statement that Apple controls about 100% of the relevant market is proven, it is more likely that the Court might state that the Apple Play store is not an essential facility and Apple should grant access for others to use it.

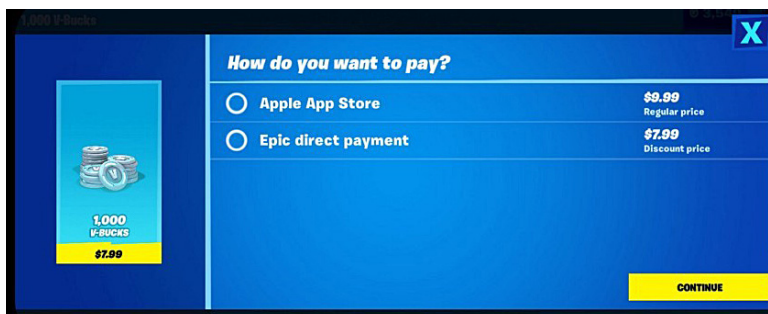
3. Concise comparative analysis of cases around the world

3.1. Apple's and Google's cases

As mentioned earlier, Epic Games filed the complaint blaming Apple for a refusal to supply access to an essential facility and rise the discussion of whether Apple controls

access to an essential facility (iOS app distribution market). A few days earlier before filing the complaint against Apple, Epic Games filed a similar complaint against Google.

Both Apple and Google removed Fortnite from their App Stores for similar reasons: there exists guidelines regarding in-app payments that apply to every developer who sells digital goods or services on the App Store and the Google Play Store. They state that any commerce done within the app must use the default Apple In-App Purchases/Google In-App billing services as the method of payment. Apps cannot use or link to an alternate payment method within the app (Venkatesan, 2020). Epic decided to violate these terms of both Apple and Google and installed a direct Epic payment for Fortnite's In-App purchases as illustrated below.



Therefore, both Apple and Google decided to remove Fortnite from their App Stores, and both were sued by Epic Games. Nor both of complaints state that Apple/Google have a monopoly over iOS/Android, yet a complaint against Google focuses on foreclosure of access rather than a refusal of access to the essential facility since Android is an open-source system and Epic's claim is not focused on getting access to the ecosystem. A foreclosure could be relevant while analyzing the size of revenue cuts Apple makes. Therefore, this aspect will be discussed later.

Table No. 3. Differences between closed and open ecosystem

Android (open ecosystem)	iOS (closed ecosystem)
Possibility to install applications from outside Google Play	Possibility to install applications only from Apple's App Store
Less restrictive about apps in their own app store	Apple can disapprove and app or remove it from the app store
Android apps have access to a full file system, can communicate with each other, change the home screen launcher, set themselves as a default apps and etc.	Apps are restricted from communicating with each other. iOS does not allow to choose default web browser, email client, mapping app, and other default apps.
Several alternative app stores other than the official Google Play Store	Apple blocks third party app stores

The reason for that is that Apple and Google have different ecosystems. The main difference between iOS and Android is that Android is an open ecosystem and it allows apps to be sideloaded onto an Android device without relying on the Play Store. This implies that apps can be installed from the internet or other App Stores. Apple does not allow apps to be sideloaded onto its iOS devices since the iOS ecosystem is closed. The table below indicates the main differences between open and closed ecosystems.

Therefore, it is believed that nor Epic sues Apple and Google on similar grounds, which could be summed up as an anti-competitive practice, yet it is believed that Epic's claim against Google is weaker since it has an open ecosystem and has fewer restrictions. Consequently, a different outcome is possible. However, Epic's case against Google is not the main subject of the paper and will not be analyzed further.

3.2. Lessons from spotify

At the EU level, the European Commission (EC) is now "looking in detail into the merits of the complaint" of Spotify against Apple (Bostoen, Mandrescu, 2020, p. 6). Music streaming app Spotify has complained that it is being treated unfairly in comparison with Apple's music app because of exorbitant commission fees, delayed approvals, restricted promotions, and limited integration with Apple's broader ecosystem.

Spotify's complaints were effective. On 16 June 2020 EC released a press release informing that EC opens investigations into Apple's App Store rules. It regards similar grounds like Epic case: i) The mandatory use of Apple's in-app purchase system; ii) restrictions on the ability of developers to inform users of alternative purchasing possibilities outside of apps. Therefore, this case could set out an example of how Epic's case against Apple could be resolved in the EU.

Article 102 of the Functioning of the European Union (Article 102 (ex Article 82 TEC)) prohibits abuses of a dominant position. Under the case-law, it is not in itself illegal for an undertaking to be in a dominant position and such a dominant undertaking is entitled to compete on the merits. However, the undertaking concerned has a special responsibility not to allow its conduct to impair genuine undistorted competition on the common market (Communication from the Commission, 1p.).

The assessment of dominance will take into account the competitive structure of the market, and in particular the following factors:

1. Constraints imposed by the existing supplies from, and the position on the market of, **actual competitors**;
2. Constraints imposed by the credible threat of future expansion by actual competitors or entry by **potential competitors**;
3. Constraints imposed by the bargaining strength of the undertaking's customers (countervailing buyer power) (Communication from the Commission, 12p.).

When it comes to the **actual competition**, market shares are commonly relied upon to provide a first indication of the existing market structure and competitive relations. While the existence of high market shares is not sufficient to establish dominance, it may under certain circumstances sufficient to establish a presumption or at least an indication of dominance (Bostoen, Mandrescu, 2020, p. 10).

Based on the data in the Google Android decision, the market share of the Play Store exceeds 90%, which is more than sufficient to trigger a presumption of dominance. In the case of Apple, the market structure is even more clear-cut. Given that each ecosystem is considered to be a separate market and the iOS ecosystem is more closed than Android (as it does not allow downloading alternative App Stores, nor sideloading apps), the market for iOS App Stores is almost completely in the hands of Apple, resulting in a (near) 100% market share (Bostoen, Mandrescu, 2020, p. 11) if we believe that narrower understanding of relevant market should be applied.

However, a high degree of market share alone is not sufficient to establish dominance, particularly in the case of digital platforms that operate on highly dynamic markets. Whether Apple is dominant concerning its' App Store depends on the ability of **potential competitors** to enter the market, which is becoming the focus of market power assessments in the case of digital platforms (Bostoen, Mandrescu, 2020, p. 11). Whether Apple falls under this criteria, it should also be stated which understanding of the relevant market the Court would apply.

The final competitive constrain considered in a market power assessment is **countervailing buying power**, which has not yet been extensively discussed in the context of digital platforms. For countervailing power to exist, there must be proof of a powerful buyer that can constrain price increases by the Apple App Store for the entire market. This would require a credible alternative to the App Stores to which an important buyer could switch, or otherwise a new entrant that would be sponsored by such a buyer. In the case of the Apple App Store, this is difficult to imagine due to the barriers to entry discussed earlier (Bostoen, Mandrescu, 2020, p. 13).

In the enforcement of Article 102, the Commission will examine claims put forward by a dominant undertaking that its conduct is justified. A dominant undertaking may do so either by demonstrating that its conduct is objectively necessary or by demonstrating that its conduct produces substantial efficiencies that outweigh any anti-competitive effects on consumers (Communication from the Commission, 28p.)

One of the main elements in Spotify's complaint against Apple concerns the commission fee of 30% (15% after one year), which is levied based on the monthly subscription price of Spotify Premium, at least when iOS users subscribe through Spotify's app (rather than its website). The complaint holds that this transaction fee is too high, which makes it difficult for Spotify to offer competitive prices to consumers, especially compared to Apple's music streaming app, Apple Music. From a competition law perspec-

tive, one may thus ask whether Apple's commission fee is unfair in the sense of Article 102(a) TFEU (Bostoen, Mandrescu, 2020, p. 29)

A reasonable approach to excessive pricing in such cases, and particularly in the case of Spotify, is to consider the nature of the indirect network effects. In the case of App Stores, it is evident that developers are interested in getting access to a great number of consumers, so it is reasonable to assume that they would also be willing to finance the participation of the latter in the App Store. Furthermore, the App Store operator (Apple) also provides developers with many tools and technical support to allow them to create apps, to begin with. The costs involved in such activities are also reasonably passed on to app developers (Bostoen, Mandrescu, 2020, p. 30).

What remains to be considered is whether such practices could be objectively justified under art.102 TFEU. The tying of the App Store to iOS is likely to be countered by an argument of software security and user protection as these actions allow Apple to strictly monitor and filter any potential security threats. At the same time, when considering the proportionality of such actions, one cannot but ask: is Android so unsafe that a complete ban on compatible App Stores or alternative distribution channels is strictly necessary? It is unclear, however, to which extent imposing its payment system on app developers is necessary for Apple to monetize its App Store and proportionate to the competitive concerns it raises.

Nor the investigation is not finished, yet Spotify took an action earlier. Although Spotify is currently available to be downloaded to iOS, yet the latest version of this app does not allow new users to register and pay a registration fee. Why is that? Spotify decided to take such measures in opposition to the commission Apple takes. Therefore, there is no guarantee that other program developers, especially bigger ones, will not take a similar step.

The European Commission has not finished the proceedings over the investigations into Apple's App Store rules. On the other hand, not a long time ago Epic Games sued Apple in the United Kingdom, claiming that Apple's practices are harmful and eliminated competition in-app distribution and payment processes. Unfortunately to Epic, United Kingdom's court ruled in Apple's favor and refused to force Apple to reinstate Fortnite to App Store. As Epic Games said in the statement, it might reconsider pursuing the case against Apple in the United Kingdom after the resolution of the U.S. case. Therefore, the dispute against the Parties might not end any time soon.

4. Conclusions and paths forward

1. Apple's business model has gradually shifted from primarily making and selling hardware towards relying more on the services of iPhone users. It seems that Apple has created an ecosystem where the vast power over iOS as well as the dis-

tribution of software applications (apps) and the processing of users' payments for digital content used within iOS mobile apps.

2. There is no doubt that the after-effects of Epic's claim will have a huge impact, not only on Apple but also on the whole app development and distribution industry.
3. It is considered that Apple should take action to promote the competition on the iOS platform or decrease the commissions since a lot of developers can follow Spotify's way.
4. The outcome of this case mostly depends on how the Court will describe the relevant market. There are two main possibilities: the Court may be convinced by Epic Games that the relevant market consists only of iOS users or it might be convinced by Apple that the relevant market is wider and consumers might be reached not only by iOS platform but others as well.
5. This dispute is not only a matter of law but also of competition policy. Court has to answer from which perspective it will make the assessment. If the court will assess this case from Epic's perspective, then the likelihood that Epic's behavior and the alternatives available to them show will that it is not a matter of life or death for them. However, if the court tries to empathize with the consumer perspective (more specifically, Apple consumers), then the probability that the problem will be established increases – because consumers have fewer alternatives.
6. There is no legal precedent in similar cases to predict the outcomes of this Court decision. However, there is no doubt that this case will have a huge impact on how the big tech companies will participate on the platforms.

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