

Gaming App-stores: The Battle for Mobile Gamers

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A Quick Intro

- Three actors in the app-store:
 - App-developers: provide content to be distributed on the platform
 - App users: download and use the apps the developers have created
 - Store operator: responsible for keeping the store online. Usually provides the following services

Lay of the Land: App developers

- App developers provide entertaining, educational or interesting content in hopes of profit. There are three means by which app-developers can monetize the content they create:
 - Free apps that sell advertisement space to other businesses
 - Freemium apps that are free to download but that have in-app purchases
 - Premium apps that must be paid in advance of a download
- App developers using the freemium or premium monetization models must use the services of a payment processor

Lay of the Land: Users

- Pay for premium and freemium apps
- Give access to their phone and data
- Rely on the app store to facilitate their relationship with the app developers
 - Make decisions based on ratings of other users, responsiveness of the developer on the app-page, and the minimum security assurances provided by the store (if any), as well as the knowledge that they can demand refunds directly from the app store under certain conditions.

Lay of the Land: Platform operators

- Approvals for on-boarding of new apps to the store
- Visibility and search tools for use in the app store
- Security check on app-code against malignant software
- Security check against social engineering attacks
- Implement data privacy policy
- Facilitate payment from app-users to app-developers
- Balance the rights of users and developers both of which rely on the platform
- Charge app developers for access to the platform

What is at stake?

- App stores are massively profitable: Apple operating margins over 75%
- Massive amounts of money flows through app stores:
 - Apple Appstore: \$64 - 72.3 billion
 - Google Appstore: ~\$34 billion
 - Unknown volumes at Amazon, Huawei app stores
- Vast majority of app revenue at mobile app stores attributable to games:
 - Apple Appstore revenues from games apps consistently account for more than 75% of all of Apple app-stores billings in a year
 - Over 98% of Apple's in-app purchase revenue in 2018 - 2019 attributed to games
 - Apple's market share in the global mobile game market (except China) approximately is approximately 57%

Economics of a game app-store

- 30% commission on all app-store purchases, subscriptions, and in-app purchases. Physical goods are except from commissions.
- The 30% app-store commission is not based on any real cost analysis. The 30% commission was widely adopted by all app-store distributors in all platforms following Apple's lead with the iOS.
 - Following the Epic lawsuit in 2020, major app-stores (Apple, Google, Amazon) initiated plans with lower commission rates for small developers with sales under \$1 million.
- The commission rate is widely criticized, and there are multiple anti-monopoly actions against it in the US.

What drives the commission rate?

- Apple claims that initially it was their best-estimate of how much they would need to charge developers to continue developing and running the app-store
- After Apple's first billion, the company considered whether they should reduce the app-store commission. But there was no incentive to revise the commission

What drives the commission rate?

- Besides lack-of competition, other non-economic concerns can drive differential commission rates:
 - Marketplaces that are themselves large financial institutions have lower commission rates (Tencent app-store)
 - Marketplaces that rely on other marketplaces to facilitate in app purchases have greater commission rates
 - Political pressure in China has lead to gaming apps to have commission rates significantly higher than other kinds of apps (>50%)

What drives the commission rate?

Why are there no commissions on sales of physical goods on mobile apps?

What is an app market legally?

- The aftermarket model:
 - There is a marketplace for operating systems
 - Two derivative aftermarkets flow from the marketplace for operating systems:
 - Aftermarket for app-distribution
 - Aftermarket for in-app payment solutions, which is often an aftermarket of the app-distribution aftermarket.
 - Users are funneled into the app-store that is pre-loaded into their system
 - Operating systems have anti-competitive practices that make it more difficult, for users to subscribe to alternative app-stores
 - App-stores further limit consumer choice in the aftermarket for in-app payment solutions because they force app-developers to use the one that is bundled into the app-store

Problems with the aftermarket model?

What is an app market legally?

- The two-sided market model:
 - The only market that exists is the digital game transaction market for mobile devices
 - The app-store operator provides different services to two groups of people (developers and users), both of which depends on the operator to mediate between them
 - In app purchase services is only one of the many components of a full-suite of services offered by the app-store competing in the digital game transaction market.

Problems with the digital game
transaction market model?

Epic v Apple

- Epic brings anti-competition actions under Section 1 & 2 of the Sherman Act (Counts 1,2,3,4,5,6), California's Cartwright Act (Counts 7,8, and 9), and California's Unfair Competition Law.
- The following will take a quick look at the general framework of the Sherman Act:
 - Count 3: Apple's alleged unlawful restraint of the iOS app distribution market
 - Count 5: Alleged unlawful restraint on the iOS in-app payment solutions market
 - Count 1: Apple's Monopoly Maintenance of the iOS app distribution market
 - Count 4: Apple's Monopoly Maintenance of the iOS in-app payment solutions market

Preliminary Matters: What product market

- Epic claimed an aftermarket model for iOS App distribution, and iOS in-app payment solutions.
- (Newcal) 4 factors indicate whether an alleged market is a single-brand aftermarket at the motion to dismiss:
 - Wholly derivative from and dependent on the primary market
 - Illegal restraints of trade and illegal monopolization that relate only to the aftermarket
 - Defendant's market power flows from its relationship with its consumers, and the defendant did not achieve market power in the aftermarket through contractual provisions that it obtains the initial market
 - Competition in the initial market does not discipline anticompetitive practices in the aftermarket.

Preliminary Matters: What product market

- The fundamental problem: there is no prior market for smartphone operating systems.
- Epic's application of Newcal factors to alleged facts:
 - iOS apps and iOS payment processing derive from Apple's operating system
 - Restraints related to app distribution and payment processing do not relate to the primary market for iOS operating system
 - Consumers do not contractually agree to obtain apps only through the App Store when they purchase an iPhone; developers are contractually restricted in the market; Apple's market power in the derivative markets derive from its relationship with its consumers.
- Epic fails to show lock-in after the consumers' initial purchase in to iOS.
 - At least repeat consumers of iOS would know that iOS is a walled garden
 - No policy change such as increasing commission rates. 30% historically flat
 - Cross-play and data migration increasingly possible between iOS and Android. Even with the restrictions on competing app-stores, other game distributors making inroads on iOS via streaming.

Preliminary Matters: What product market

- Court accepts Apple's submission on the product market:
- Question is whether Apple exercised monopoly or anti-competitive conduct in the 'digital mobile game transactions' market.

Preliminary Matters: What geographic market

- “A geographic market is an area of effective competition where buyers can turn for alternate sources of supply”
- Key question is the area of effective competition, not whether the United States antitrust laws are effective in non-US jurisdictions
- Court agrees with Epic that the relevant geographic market is the global market except China.

Preliminary matters: Market

- Market power: “the ability to raise prices above those that would be charged in a competitive market” (sufficient to satisfy s.2)
 - Defendant must have at least 24-30% of the market share.
- Monopoly power: “the power to control prices or exclude competition” (required to satisfy s.2)
 - Defendant must have at least 50% of the market share for the court to accept the case.
 - Prima-facie showing of market power admitted if defendant has 65-70% of the market share
- Market/Monopoly power must be enduring and sustaining, not fleeting or ephemeral.

Preliminary matters: Injurious Conduct

- Evidence of substantial or dominating market share alone not sufficient to establish market/monopoly power sufficient to carry out a predatory scheme in either s.1 or s.2
 - Such evidence can bring a claim under s.2 even if the defendant doesn't have enough market share.
- Direct evidence: evidence of restricted output and supracompetitive prices
- Indirect evidence: demonstration that there are significant barriers to entry and that existing competitors lack the capacity to increase their output in the short term in the relevant market; ie:
 - Long-run costs not incurred by incumbent firms but must be incurred by new entrants
 - Factors in the market that deter entry while permitting incumbent firms to earn monopoly returns

Preliminary matters: Injurious Conduct

- Direct evidence:
 - Court agreed 30% commission is supracompetitive pricing, but
 - Epic failed to demonstrate that there was a restriction in the output of mobile game transactions
- Indirect evidence:
 - Evidence showing market power: mobile game distribution market is a duopoly, economies of scale favor established gaming stores over new entrants, unclear whether google is able to effectively compete with Apple
 - Evidence detracting from market power: increased competition from online streaming, and cross-platform play

Preliminary issues: market power

- “In sum, given the totality of the record, and its underdeveloped state, while the Court can conclude that Apple exercises market power in the mobile gaming market, the Court cannot conclude that Apple’s market power reaches the status of monopoly power in the mobile gaming market. That said, the evidence does suggest that Apple is near the precipice of substantial market power, or monopoly power, with its considerable market share. Apple is only saved by the fact that its share is not higher, that competitors from related submarkets are making inroads into the mobile gaming submarket, and, perhaps, because plaintiff did not focus on this topic.”

Count 3: Apple's alleged unlawful restraint of the iOS app distribution market (Sherman Act S.1)

- Section 1 of the Sherman Act prohibits “[e]very contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations.” 15 U.S.C. § 1. Section 1 is understood “to outlaw only unreasonable restraints.”
- “To establish liability under § 1, a plaintiff must prove (1) the existence of an agreement, and (2) that the agreement was in unreasonable restraint of trade.” *Aerotec Int’l, Inc. v. Honeywell Int’l, Inc.*, 836 F.3d 1171, 1178 (9th Cir. 2016)
- Primary focus of S.1 is on concerted acts between multiple corporations (acting as a cartel), but some unilateral actions can also fall under the scope of S.1.

Count 3: Apple's alleged unlawful restraint of the iOS app distribution market (Sherman Act S.1)

- Unreasonable restraints: “fact specific assessment of market power and market structure to assess the restraint’s actual effect on competition
- Some restraints are anticompetitive and harmful to the consumer, others stimulate competition and are in the consumer’s best interest
- Where the defendant plausibly argues certain restrictions are pro-competition or in the consumer’s best interest, plaintiff must show that there are alternatives that are as effective and not cost prohibitive.

Count 3: Apple's alleged unlawful restraint of the iOS app distribution market (Sherman Act S.1)

- Apple imposes the terms of services and developer program legal agreement on to the consumers and developers respectively. Therefore, the analysis continues under the unilateral action branch of analysis.

Count 3: Apple's alleged unlawful restraint of the iOS app distribution market (Sherman Act S.1)

- Anti-competitive effects:
 - 30% commission is arbitrary
 - Precludes developers, especially larger ones, from opening competing game stores on iOS and compete for other developers and users on price
 - Competing app stores could offer better rates to developers and consumers
 - Competing app stores could provide better visibility and features on their store-front
 - Stifled innovation

Count 3: Apple's alleged unlawful restraint of the iOS app distribution market (Sherman Act S.1)

- Apple's procompetitive justifications:
 - Security: iOS app store permits human review of apps before they are pitched to consumers flagging for phishing and malware
 - Intraband competition: Whereas Android offers free-source software experience to users iOS increases choices available to users by offering the walled-garden experience to users who prefer a much more curated experience
 - Intellectual property protection: Apple deserves protection for its work in developing the iOS and the Apple store. However, 30% is found to anti-competitive.