

# The Apple Ecosystem in the US

An overview of the App Store marketplace and its growth

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Jessica Burley, Ph.D.  
Analysis Group

Professor Andrey Fradkin, Ph.D.  
Boston University Questrom School of Business

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## Summary

### Part 1

Billings and sales facilitated by the App Store in the US in 2024

**\$406 billion**

ecosystem in 2024 in the US

**2.9x**

growth in the ecosystem since 2019

### Part 2

The Apple ecosystem for US-based developers and users

**12.4 billion**

downloads worldwide in 2024 for US-based developers

**2.5x**

growth in earnings of US-based developers worldwide

The App Store is the primary way by which iOS users and developers connect with each other. It is supported by the resources and tools that Apple provides to foster interactions in a trusted environment.<sup>1</sup> Usage and transactions facilitated by the App Store have been growing rapidly over the past five years.

This descriptive report estimates the total billings and sales facilitated by the App Store in the US, with a focus on app users, developers, and the business models and monetization strategies available to them. In addition, this report considers the growth of US-based developers of all sizes, both domestically and internationally,<sup>2</sup> and discusses some important iOS platform policies, guidelines, and resources that support the App Store ecosystem—ranging from tools and services provided to developers and users, to policies that aim to improve the marketplace.

The App Store in the US facilitated \$406 billion in billings and sales in 2024. As with many marketplaces, most of the facilitated value is captured by the ecosystem rather than Apple: For more than 90% of the billings and sales facilitated by the App Store ecosystem, developers did not pay any commission to Apple.

Between 2019 and 2024, the size of the App Store ecosystem in the US nearly tripled. Since 2019, the sustained growth of the App Store ecosystem in the US underscores its role as a trusted marketplace that enables US-based developers to reach a large base of users who, in turn, benefit from a wide array of innovative apps.

In 2024, users around the world downloaded apps from US-based developers more than 12.4 billion times. Compared to five years ago, downloads of apps from US-based developers have increased 36% while earnings for US-based developers have more than doubled. US-based developers have had significant growth in the domestic market over the last five years: downloads from users in the US increased by almost 20%, while earnings more than doubled. US-based developers are also able to reach over a billion users worldwide through the App Store: Most US-based developers had downloads from multiple storefronts in 2024.

The App Store is governed by policies like the App Review Guidelines and processes that work to ensure that apps meet standards for privacy, security, and content. For developers, Apple offers integrated hardware and software technology and tools, such as over 250,000 APIs, including as part of frameworks such as HealthKit, Metal API, Core ML, MapKit, and SwiftUI. Apple also invests in education, and helps developers distribute globally with the App Store's distribution, security and safety, discovery, payment, and analytics tools. For users, Apple offers features that help users manage purchases, share purchases with family members, and manage their screen time.

The App Store's commission rate is 30%, but most app developers selling digital goods and services are eligible to pay a reduced commission rate of 15% on sales made via in-app purchases or paid downloads (for example, through the Small Business Program and the Video Partner Program).<sup>3,4</sup> In addition, many developers monetize their apps in ways that do not entail Apple collecting a commission, such as selling physical goods and services, or through in-app advertising, and a large majority of iOS app US-based developers do not pay any commission to Apple. The App Store commission covers all of Apple's technologies, tools, and services, and applies to all developers selling digital goods and services in a given geography in the same way. This commission structure is applied uniformly, rather than being individually negotiated.

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- <sup>1</sup> The App Store, the users and developers, and the resources and tools that Apple provides are referred to as the "Apple ecosystem" throughout this report.
  - <sup>2</sup> "US-based developers" refers to individual developers or developer teams with operational headquarters located in the US.
  - <sup>3</sup> Since 2021, all new developers and developers who earned up to \$1 million USD on the App Store in the prior calendar year are eligible to enroll in the Small Business Program.
  - <sup>4</sup> Aside from the Small Business Program and the Video Partner Program—for qualifying streaming services—other programs and policies through which Apple offers a reduced commission rate include the Apple Reader Rule, where apps can apply for the External Link Account Entitlement program and users can manage their account and content outside of the app, and the News Partner Program—for subscription news publications that provide their content to Apple News.

### Definitions of Billings and Sales

"Billings" refers to payments for paid downloads and in-app purchases, including subscriptions, that use Apple's in-app purchase system. "Sales" refers to money spent by customers purchasing goods and services in general. We use the term "facilitated" to include the various ways in which apps contribute to generating billings and sales.

### Methodology

"iOS apps" include apps on iPhone and iPad devices. Apps developed by Apple, such as Apple Music, as well as mobile browser apps, such as Google Chrome, are excluded from this analysis. Categories as presented in this report do not reflect App Store categories.

### In-App Ad Sales

Estimates of in-app ad sales for iOS apps include revenue generated from the publishing of advertisements within apps only. Estimates do not include ad-network or other ad-tech revenue, advertising on mobile web (such as on mobile browser apps) or search advertising (such as Apple Ads).

## Part 1 – Billings and sales facilitated by the App Store in the US in 2024

Over the past five years, digital consumption trends in the US have been shaped by a combination of technological innovation and evolving consumer behavior. App usage is central to daily life for everything from socializing and shopping to managing finances and health and fitness. New technologies, including AI, continue to shift how users interact with apps.

### The App Store ecosystem in the US in 2024

**The App Store in the US is a large ecosystem:** iOS users in the US downloaded apps more than 10 billion times in 2024.

**In 2024, the App Store facilitated more than \$406 billion in billings and sales.** Of the \$406 billion, \$53 billion, or 13%, came from digital goods and services consumed on iOS apps; \$277 billion, or 68%, came from purchases of physical goods and services made on iOS apps; and \$75 billion, or 18%, came from in-app advertising on iOS devices (see **Table 1**). In 2024, sales in the general retail category of physical goods and services represented 36% of overall billings and sales, more than double any other category, while billings and sales related to digital goods and services were driven primarily by games, enterprise apps, and video streaming apps.

**Table 1: Estimated Billings and Sales Facilitated by the App Store Ecosystem in the US, 2024 (\$ Billion)\***

<b>Digital Goods and Services**</b>	<b>\$53</b>	<b>13%</b>
<b>Physical Goods and Services***</b>	<b>\$277</b>	<b>68%</b>
<b>M-Commerce</b>		
General Retail	\$146	36%
Travel	\$41	10%
Food Delivery and Pickup	\$38	9%
Ride Hailing	\$31	8%
Grocery	\$14	4%
<b>Digital Payment</b>	<b>\$7</b>	<b>2%</b>
<b>In-App Advertising****</b>	<b>\$75</b>	<b>18%</b>
<b>Total</b>	<b>\$406</b>	<b>100%</b>

\* Totals may not sum due to rounding.

\*\* Billings and sales from digital goods and services are not the same as App Store billings. Sales from digital goods and services purchased elsewhere but used on apps on Apple devices are included, while billings from in-app purchases made via the App Store but used elsewhere are excluded. The estimate relies on third-party sources and Apple data. See Appendix for details.

\*\*\* Sales from physical goods and services rely on estimates from third-party sources. For general retail and grocery, total e-commerce and m-commerce sales are based on EMARKETER, "Country Retail eCommerce and mCommerce Sales". See Appendix for details.

\*\*\*\* iOS in-app ad revenue; does not include ad-network or other ad-tech revenue, advertising on mobile web, or search ads, including Apple Ads.

Apple collected no commission on more than 90% of the \$406 billion in billings and sales facilitated by the ecosystem in the US. (See **Appendix Table 1** for further methodological details.)

Notably, Apple does not collect a commission on purchases of **digital goods and services that happen entirely outside of apps** (e.g., purchasing a subscription to a newspaper through a web browser), on purchases of **physical goods and services through apps** (e.g., when a user pays for a ride on a ride-hailing app or buys groceries online), or on **in-app advertising revenue** (e.g., ad revenue for ads purchased by advertisers outside the app and placed by developers in the app using ad network APIs).

While this analysis captures the major app monetization strategies (see **Estimating the size of the App Store ecosystem**), the full economic impact of the App Store ecosystem extends beyond the estimates provided in this report, as the methodology does not capture all of the ways in which the App Store ecosystem facilitates sales, or all of the benefits created by apps. For example, the App Store supports “companion apps” that raise the value of a company’s goods and services, including smart home apps and health apps. As such, this analysis provides a conservative estimate of the size of the App Store ecosystem.

### Estimating the size of the App Store ecosystem

This study relies on the methodology to estimate the billings and sales facilitated by the App Store from the studies conducted by Borck, Caminade, and von Wartburg ([How Large Is the Apple App Store Ecosystem?, A Global Perspective on the Apple App Store Ecosystem](#), and [The Continued Growth and Resilience of Apple’s App Store Ecosystem](#)). Due to retroactive changes made to third-party data sources, some numbers in this report have been updated for accuracy and may differ from previous studies.

Consistent with past studies, in this report, the direct monetization of apps represents a small fraction of the overall commerce the App Store facilitates, because developers can monetize their apps in several ways that do not involve transacting through the App Store, such as:

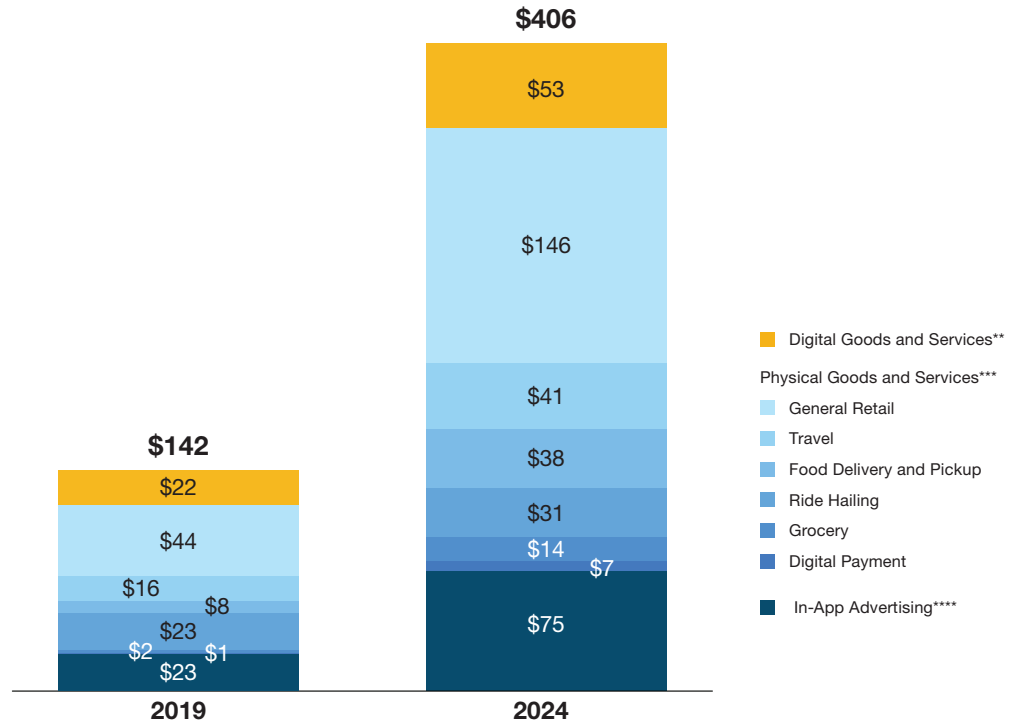
1. Selling digital goods and services outside of the App Store for use within apps on Apple devices (e.g., news and magazine subscriptions, music and video streaming)
2. Selling physical goods and services through apps on Apple devices (e.g., food and grocery delivery or ride hailing)
3. Offering ad-supported content within apps (e.g., ad-supported games)

A complete description of the methodology used in this report is included in the Appendix.

## The growth of the App Store ecosystem in the US

Over the last five years, the size of the App Store ecosystem in the US nearly tripled from \$142 billion in 2019 to \$406 billion in 2024. (See **Figure 1.**)

**Figure 1: Estimated Billings and Sales Facilitated by the App Store Ecosystem in the US by App Category, 2019 to 2024 (\$ Billion)\***



\* Totals may not sum due to rounding. 2019 estimates are based on retroactively updated numbers from third-party data. See Appendix for more details.

\*\* Billings and sales from digital goods and services are not the same as App Store billings. Sales from digital goods and services purchased elsewhere but used on apps on Apple devices are included, while billings from in-app purchases made via the App Store but used elsewhere are excluded. The estimate relies on third-party sources and Apple data. See Appendix for details.

\*\*\* Sales from physical goods and services rely on estimates from third-party sources. For general retail and grocery, total e-commerce and m-commerce sales are based on EMARKETER, "Country Retail eCommerce and mCommerce Sales". See Appendix for details.

\*\*\*\* iOS in-app ad revenue; does not include ad-network or other ad-tech revenue, advertising on mobile web, or search ads, including Apple Ads.

Since 2019, iOS-based in-app spending on physical goods and services has more than tripled, while iOS-based in-app spending on digital goods and services and in-app advertising more than doubled. (See **Table 2**.)

**Table 2: Estimated Changes in Billings and Sales Facilitated by the App Store Ecosystem in the US Since 2019\***

	2019 to 2024
<b>Digital Goods and Services**</b>	<b>+141%</b>
<b>Physical Goods and Services***</b>	<b>+211%</b>
<b>M-Commerce</b>	
General Retail	+317%
Travel	+163%
Food Delivery and Pickup	+220%
Ride Hailing	+37%
Grocery	+353%
<b>Digital Payment</b>	<b>+653%</b>
<b>In-App Advertising****</b>	<b>+141%</b>
<b>Total</b>	<b>+185%</b>

\* Changes are based on retroactively updated numbers from third-party data. See Appendix for more details.

\*\* Billings and sales from digital goods and services are not the same as App Store billings. Sales from digital goods and services purchased elsewhere but used on apps on Apple devices are included, while billings from in-app purchases made via the App Store but used elsewhere are excluded. The estimate relies on third-party sources and Apple data. See Appendix for details.

\*\*\* Sales from physical goods and services rely on estimates from third-party sources. For general retail and grocery, total e-commerce and m-commerce sales are based on EMARKETER, "Country Retail eCommerce and mCommerce Sales". See Appendix for details.

\*\*\*\* iOS in-app ad revenue; does not include ad-network or other ad-tech revenue, advertising on mobile web, or search ads, including Apple Ads.

**Digital goods and services:** While all categories of apps have grown since 2019, the largest growth occurred in enterprise and app-based entertainment apps, both of which grew fourfold over the last five years. The growth in enterprise apps was driven by the widespread adoption of digital collaboration platforms like Zoom and Microsoft 365 Cloud, along with the integration of AI tools that are transforming how teams communicate and collaborate. Notable growth also occurred in the billings and sales for photo and video editing and education apps, both of which more than tripled over the last five years. Among photo and video editing apps, AI-enhanced tools like Canva and Lightroom Photo & Video Editor are making content creation easier for users.

**Physical goods and services:** Over the last five years, sales of physical goods and services facilitated through the App Store ecosystem experienced substantial growth in the US, underscoring the continued and increasing digitization of everyday consumer behavior. General retail spending and grocery delivery increased fourfold, reflecting the widespread adoption of mobile platforms such as Instacart and DoorDash. By 2024, iOS-based in-app spending on travel and food delivery and pickup surpassed ride hailing, as users increasingly turned to iOS apps to book travel, and restaurants increasingly offering delivery options through iOS apps. In addition, since 2019, the use of digital payment apps has continued to grow in the US with the widespread adoption of digital wallets and peer-to-peer payment platforms.

**In-app advertising:** The iOS-based in-app ad spend in the US has more than doubled since 2019, with ad spend among non-gaming apps growing quicker than for games.

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## Part 2 – The Apple ecosystem for US-based developers and users

The App Store is a digital marketplace where developers and users can interact and transact. By distributing apps and updates through a single platform, the App Store gives developers of all sizes—including small and independent creators—the ability to reach a broad audience. Users, in turn, are able to explore a wide range of apps from a diverse developer community. In addition to its global reach, Apple invests in technology, tools, and services that strengthen the App Store ecosystem.

This section highlights the growth of US-based developers, both in the US and internationally, and discusses the key tools and services Apple offers to support them.

### *The growth of US-based developers on the App Store*

## US-based iOS Developers in 2024: by the numbers

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**12.4 billion**

downloads worldwide in 2024

**More than 2x growth**

in developer earnings from US users since 2019

**9 out of the Top-10**

most downloaded apps in the US App Store were made by US developers

**76% growth**

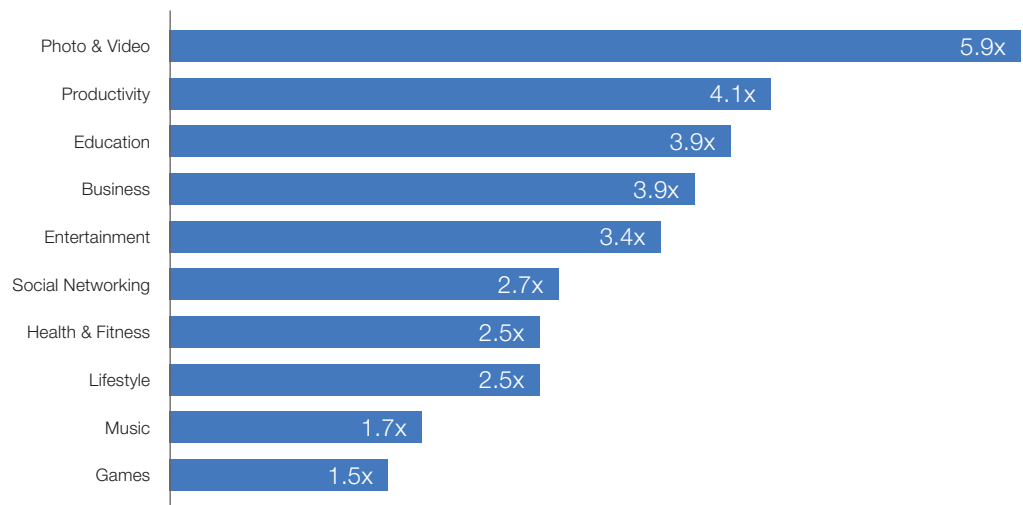
in earnings of small developers active in 2021

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In 2024, users worldwide downloaded apps from US-based developers more than 12.4 billion times through the App Store, a 36% increase compared to 2019. During the same period, the earnings of US-based developers on the App Store more than doubled (2.5x).<sup>5</sup>

US-based developers have grown across a diverse range of app categories. Among the ten largest app categories, photo and video apps, including those that offer AI-powered editing tools, creative filters, and platforms for sharing visual content, experienced the largest growth in developer earnings, with earnings increasing almost sixfold in the last five years. US-based developers saw their earnings increase across all other Top-10 earning categories, with developer earnings increasing between 50% and over four-fold since 2019, including games, the app category with the highest earnings in 2024.<sup>6</sup> (See **Figure 2.**)

**Figure 2: Growth of Top-10 App Categories by Earnings of US-Based Developers (2019–2024)**



### **The growth of US-based developers on the App Store**

The App Store platform offers US-based developers the ability to distribute their apps to a large base of iOS users domestically and globally. In the last five years, US-based developers of iOS apps have seen strong domestic growth. In 2024, nine out of the Top-10 most downloaded apps on the US storefront were from US-based developers. Compared to five years ago, downloads from users in the US have increased by almost 20% and earnings from users in the US have more than doubled. (See **Examples of apps from US-based developers that have had success in the US.**)

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<sup>5</sup> Developer earnings refer to the revenue that developers receive from monetizing their apps via paid app or in-app purchases, calculated as App Store billings net of Apple's commission.

<sup>6</sup> Games was also the largest category in 2019 accounting for nearly half of all App Store earnings.



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### Examples of apps from US-based developers that have had success in the US



**Peacock:** Launched in 2020, Peacock is the US-exclusive streaming home of NBCUniversal, where fans can enjoy thousands of hours of culture-defining entertainment, including award-winning blockbuster films, new and classic TV shows, live sports and news.<sup>i</sup> During the 2024 Paris Olympics, Peacock became the No.1 free iOS app in the US App Store in terms of downloads.<sup>ii</sup>



**Instacart:** A leading online platform for grocery and household item delivery, Instacart enables customers to order fresh food, beverages, and other household essentials for delivery or pickup in as little as 30 minutes.<sup>iii</sup> Partnering with nearly 100,000 retail stores, Instacart has saved its customers an estimated 700 million hours and contributed approximately \$8 billion in revenue for the US grocery industry.<sup>iv</sup>

### Apple offers a global platform for US-based developers to connect with users around the world

The App Store's global platform offers the opportunity for US-based developers to distribute their apps to users worldwide. US-based developers have taken advantage of the App Store's worldwide presence, distributing a diverse set of apps across all 175 App Store storefronts. In 2024, many US-based developers were active on multiple storefronts<sup>7</sup>—24 storefronts on average.

A wide variety of apps from US-based developers have found success with global audiences. (See **Examples of apps from US-based developers that have found global success.**)

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<sup>7</sup> A developer is considered active on a given storefront if they have more than 20 downloads on that storefront. Developers with fewer than 1,000 total downloads in 2024 are excluded from this analysis.

### Additional support and benefits of Apple's payment and commerce system

Apple's payment and commerce system makes it easier for developers to monetize locally as well as globally, supporting cross-regional payment processing and transaction management.

The App Store supports a large number of local payment methods and allows developers to bill users in 44 currencies at no additional charge. This allows developers to sell to users around the world without users having to pay foreign transaction fees, no matter where the developer is based.

The App Store helps developers pricing globally, by suggesting prices in local currency, which are adjusted to account for local market factors.

Apple also administers tax on behalf of developers in over 70 countries and regions, and provides developers with the ability to assign tax categories, therefore reducing the administrative burden on developers, especially for those selling in multiple storefronts.

### Examples of apps from US-based developers that have found global success



**Notability: Smarter AI Notes:** Designed for notetaking, and featuring an AI-powered “Learn” tool that generates summaries, quizzes, and flashcards from notes, Notability leverages AI handwriting recognition software to interpret and digitize users’ handwritten notes.<sup>v</sup> Founded in 2010, the app has reached global success, being used by millions of students in more than 50 countries.<sup>vi</sup>



**Kino - Pro Video Camera:** This app allows users to record cinematic videos using the iPhone camera, offering color presets created by expert filmmakers.<sup>vii</sup> Winner of the App Store iPhone App of the Year in 2024,<sup>viii</sup> available in multiple languages and popular in many storefronts, Kino appeals to a global audience of amateur and professional videographers.

Many apps from US-based developers have also appeared on the most-downloaded app charts in storefronts outside of the US: In 2024, apps from US-based developers ranked among the Top-5 most downloaded apps in 170 out of Apple's 175 App Store storefronts with 70% of the Top-5 apps across all storefronts coming from US-based developers. In over 60% of all storefronts (113) in 2024, the most downloaded app was made by a US-based developer.

To support global monetization, the App Store provides integrated payment and commerce tools that enable users outside the US to easily purchase apps, make in-app payments, or subscribe to services offered by US-based developers. (See sidebar on **Additional support and benefits of Apple's payment and commerce system.**)

The App Store helps small businesses and developers more economically showcase and distribute their apps to users. Small developers have found success on the App Store: Total App Store earnings of small US-based developers who were active in 2021 increased by 76% between 2021 and 2024. (See **The growth of small developers on the App Store.**)

### Small Business Program

In January 2021, Apple launched the App Store Small Business Program, through which new developers and developers who earned up to \$1 million USD on the App Store in the prior calendar year can qualify for a reduced commission rate of 15%.

### The growth of small developers on the App Store

Apple invests in helping small developers. In addition to developer education and support, Apple has provided since 2021 a reduced commission rate for small developers enrolled in the Small Business Program. (See sidebar on the **Small Business Program** for more details.)

Small developers in the US have grown their earnings at a fast pace over the past five years: Around a third of developers who earned more than \$1 million in 2024, were either not on the App Store or had less than \$10,000 in earnings in 2019.<sup>ix</sup> Additionally, total App Store earnings of small developers who were active in 2021 increased by 76% in the three years between 2021 and 2024.<sup>8</sup>

### Examples of apps from small developers in the App Store Small Business Program



**FlipaClip: Create 2D Animation:** Developed by a Miami-based startup,<sup>x</sup> this app allows enthusiasts and professionals to create beautiful animated movies in multiple styles—from old-school cartoons to stop motion.<sup>xi</sup> Previously part of the Small Business Program, the app has achieved global success, featuring in iPad marketing campaigns and reaching a global audience of over 6 million monthly active users.<sup>xii</sup>



**Slopes: Ski & Snowboard:** This app is designed for winter sports enthusiasts, enabling them to track and record their personal skiing and snowboarding stats, locate friends on the mountain, and explore interactive resort maps.<sup>xiii</sup> Originally launched as a passion project by an independent developer and part of the Small Business Program, Slopes has achieved international success, trusted by over 5 million skiers and snowboarders worldwide to enhance their winter adventures.

<sup>8</sup> The criteria for categorizing small developers are broader than those of the Small Business Program and include developers that do not sell digital goods and services directly on the App Store as well as developers that do not participate in the Small Business Program. A developer on the App Store is considered to be a small developer in a given year if it had fewer than one million downloads and less than \$1 million in earnings across all its apps in that year. Developers who never had more than 1,000 annual downloads from 2021 to 2024 are excluded. To limit the effect of a few large-scale successes driving the results, this analysis excludes developers that earned \$10 million or more in any year over the 2021 to 2024 period.

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## *How Apple and the App Store support developers and users*

The Apple ecosystem goes beyond the App Store and includes Apple's platform technology and the wide range of tools and services Apple offers to support both developers and users. Ongoing investments in technology and developer education have helped creators to build high-quality, innovative apps. Together, these guidelines, tools, and services support the continued growth of the broader ecosystem.

### **The functionality and support that Apple offers developers**

In addition to offering developers a platform to reach a global user base, Apple's ongoing investment in the iOS ecosystem supports the creation and discovery of new apps, helps developers add new functionality to existing apps, and provides metrics to track app performance and user engagement. Specifically, Apple supports developers in the following ways:

- **Integrated hardware and software technology and developer tools and services:** Apple has released over 250,000 APIs, including as part of frameworks such as HealthKit, which provides a secure option for apps to create apps based on user health data; the Metal API, which can improve performance and make cutting-edge, graphics-intensive designs possible (used by ARK); Core ML, which allows developers to integrate machine learning models into their apps, and Translate API, which provides in-app translation tools. Apple's App Intents framework (used by Etsy) enables integration of app functionality and content with system features across platforms, including Siri, Spotlight, widgets, and controls. Apple's SwiftUI framework (used by Airbnb) helps developers to build apps with less code by using a declarative syntax that streamlines development of user interfaces across Apple platforms. Apple's support also extends to spatial computing through Apple Vision Pro. This platform (used by Webex, for example) empowers developers to create immersive, spatial experiences that take advantage of users' eye movements, hand gestures, and voice inputs. (See **Examples of apps by US-based developers that use Apple technology and features.**)
- Tools like **Xcode** and **Swift** have been designed to support developers in app development, including the visual design, adoption of features and frameworks, and troubleshooting issues. Testing tools such as **TestFlight** connect developers and users during the app's testing phase. The limited number of Apple devices and operating systems minimizes fragmentation, making it easier to develop apps, since iOS apps need to be designed for a small number of devices and operating system versions.<sup>xiv</sup>
- **Distribution:** The App Store enables developers to distribute their apps to all iOS users around the world via a single platform. The App Store also makes sure users receive the latest features and security updates. In 2024, the App Store facilitated an average of more than 66 billion app updates each week worldwide and more than 17 billion updates for users in the US.
- **Trust and safety:** A marketplace that is trusted and secure allows users to confidently download apps, helping developers reach more users. Apple's App

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Review policies and fraud monitoring technologies support users. Between 2020 and 2023, Apple prevented over \$7 billion of potentially fraudulent transactions, blocked over 14 million stolen credit cards and removed close to 152 million ratings globally.

- **Discovery:** Developers have access to tools that aid in discovery and user engagement. The App Store facilitates this process through product pages (e.g., ratings and reviews on the App Store, and the ability to create custom product pages for developer marketing and promotions that highlight different app features for different users), search functionality (e.g., natural language search, search suggestions), curation and personalization (e.g., App of the Day), optimization and data analytics (e.g., the app developer dashboard, offline marketing optimization), and product pre-orders (which allow users to pre-order apps before launch).
- **Payment and commerce:** The App Store allows users to pay with many different payment methods, including, among others, credit and debit cards, gift cards, carrier billing, digital wallets, Apple Pay, and other methods that leverage third-party companies (such as PayPal, Cash App, and Venmo for example). Moreover, the App Store allows for payments in foreign currency, tax handling through App Store Connect, Family Sharing, and Parental Controls.
- **Analytics:** The App Store offers analytic tools that allow developers to track their app's performance, engagement and usage, analyze trends, track the performance of marketing campaigns, and compare benchmarks to similar apps. These benchmarking tools are designed to preserve the privacy of other developers' data while providing actionable insights for developers to better reach their target audience.
- **Developer education and support:** Developers benefit from support, guides and documentation provided by Apple, and the ability to connect with Apple experts. Apple engages with thousands of US-based developers. The Apple Developer Center in Cupertino allows developers to learn directly from Apple experts by attending labs, workshops, and consultations. The US Apple Developer website, which provides resources that facilitate app development, received more than 25 million unique visitors in 2024.

In 2021, Apple launched the Apple Developer Academy in Detroit, its first in the United States, with the goal of preparing students for careers in the growing iOS app economy. Developed in collaboration with Michigan State University, the program teaches students how to code, design, and build apps using Apple tools to contribute to their local businesses and communities. Since its launch, the academy has supported more than 1,200 graduates.

More than 900 students have also participated in the Apple Foundation Program, an intensive four-week course that teaches students the fundamentals of app development at the academy and Henry Ford College.

### Examples of apps by US-based developers that use Apple technology and features



**ARK: Ultimate Mobile Edition:** A popular adventure game featuring rich environments, from primordial jungles to futuristic landscapes.<sup>xv</sup> The app leverages Apple's MetalFX framework, allowing the game to render images at lower resolutions that are then processed and improved by MetalFX, leading to a smoother gameplay for iPhone and iPad users.



**Airbnb:** One of the top travel apps on the App Store, offering over 8 million vacation homes across more than 220 countries and regions.<sup>xvi</sup> In 2022, Airbnb adopted Apple's SwiftUI to revamp the user interface of its iOS app, enhancing app performance and providing a more engaging user experience.<sup>xvii</sup>



**Etsy:** Featured in Apple's Editor's Choice, Etsy is a digital marketplace where over 6 million sellers worldwide can sell original items, from handcrafted furniture to personalized gifts.<sup>xviii</sup> Etsy has leveraged App Intents, letting users search its marketplace via Apple's Shortcuts app and Spotlight Search.



**Webex:** Developed by Cisco, this app allows coworkers to securely send and receive messages and files, attend and host video calls, and brainstorm ideas over a whiteboard.<sup>xix</sup> Spatial Meetings recently launched their Apple Vision Pro app, allowing for immersive meeting environments where users feel like they're sitting in the same room with colleagues.<sup>xx</sup>

Apple charges developers a commission, which covers all the technologies, tools, and services made available to developers.<sup>9,10</sup> However, many developers monetize their apps in ways that do not entail Apple collecting a commission (for example, selling physical goods and services or through in-app advertising which is common among game developers). In the US, the vast majority of app developers do not pay any commission to Apple.

The commission structure is simple, transparent, and applies to all developers selling digital goods and services in a given geography in the same way. By default, developers of digital content, services, and subscriptions earn 70% of sales from paid apps and in-app purchases, and Apple collects a 30% commission. The standard commission rate has not changed since the launch of the App Store. Apple has introduced a reduced commission rate of 15% and expanded eligibility over time. The reduced rate applies to several categories of sales, including sales from subscriptions after the first year and sales from developers enrolled in the Small Business Program (See sidebar on the **Small**

9 For sales made in some countries, due to local laws and regulations, developers can elect to pay only for a subset of Apple services.

10 In addition, to upload apps, Apple charges developers a \$99 USD fee for the Apple Developer Program. These fees are fixed and do not affect the commission rate on paid app downloads or in-app purchases, including subscriptions.

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**Business Program**, p. 10). Nearly all US-based developers selling digital goods are eligible to pay a reduced commission rate.

### **App Store features that aim to benefit users**

Apple has implemented policies, guidelines, and programs aimed at ensuring the safety and reliability of the App Store.

**Apple has invested in the development of policies to foster user trust and the deployment of resources to enforce them.** Apple reviews every app and the app updates as part of App Review, working to ensure high standards for privacy, security, and content. In 2024, Apple removed \$23 million worth of fraudulent transactions, blocked 2 million credit cards, and removed over 33 million ratings and reviews in the US due to fraud concerns. Apps and in-app content also need to meet the App Review Guidelines, be periodically updated, and not represent a privacy risk for users. The App Store's automatic app updates also ensure that users have the latest and most secure version of apps. Compared to other platforms, App Store users face lower risks of malware infection.<sup>xxi</sup>

**Apple has given users more control over their privacy.** App Tracking Transparency requires apps to get the user's permission before tracking their data across apps or websites owned by other companies. In addition, Privacy Nutrition Labels require every app on the App Store to give users an easy-to-view summary of the developer's privacy practices, giving users key information about how an app uses their data. Privacy Nutrition Labels and user permissions to share third-party data also apply to Apple apps.

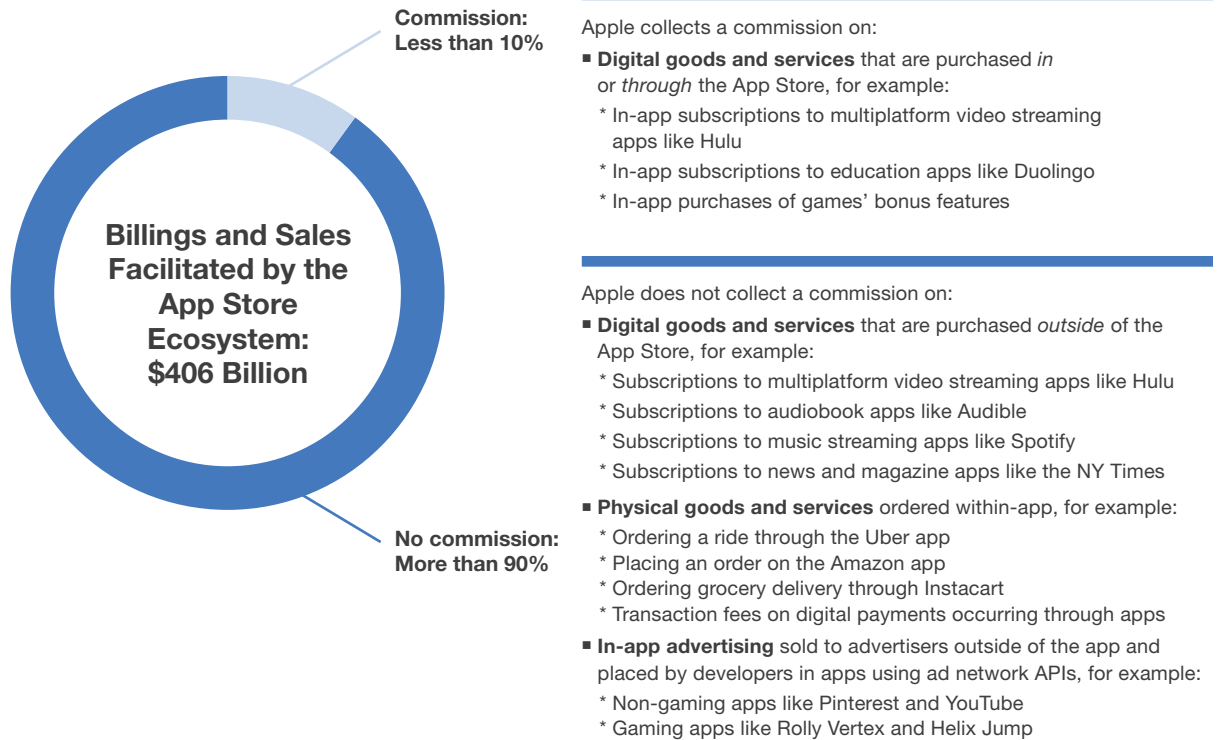
**Apple and the App Store also offer users tools to manage their app content and usage.** These include purchase management tools, Family Sharing and protection tools, and screen time tools.

- **Apple gives users the ability to manage and protect their purchases.** The App Store offers convenient and secure payments. Through the App Store, users can track and manage payments for subscriptions and in-app purchases all in one place—including cancelling subscriptions. If a user encounters an issue with a purchase, they made with an app downloaded from the App Store, Apple Care is available to provide support and issue refunds.
- **Apple offers tools for families and kids,** including Family Sharing, which allows families to share purchases, and the “Ask to Buy” feature, which allows parents to approve or decline purchase requests to protect kids. App Store policies enforce strict guidelines around data collection and security on apps in the Kids category. For example, these apps may not send personally identifiable information to third parties or contain third-party analytics or advertising. And if these apps include links outside of the app, a parental gate must be included.
- **Users and parents can use Apple's Screen Time tool to track and manage their or their kids' app activity.** With features like App Limits, users can set time restrictions on specific apps to promote healthier app usage. For parents, Screen Time provides additional control over their children's screens by allowing them to set app limits, schedule downtime, and review detailed activity reports.

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## Appendix

**Appendix Table 1: Breakdown of Where Apple Collects a Commission on Billings and Sales Facilitated by the App Store**





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## *Methodological approach*

The study considers three primary app monetization strategies that developers rely on:

- **First, to sell and distribute digital goods and services.** Sales and distribution of digital goods and services can occur through the App Store in the form of paid app downloads and in-app purchases, through linking out to webstores where content is consumed in-app but payments are made outside of the App Store, or through the sale of digital content and subscriptions from multi-platform apps that allow for the use and consumption of the app, both in the App Store ecosystem and elsewhere. Examples of apps using this monetization strategy include those for gaming, dating, video and music streaming, fitness and health, and news and magazines.
- **Second, to sell physical goods and services through the app.** Apps using this monetization strategy are e-commerce apps generally, including apps for ride hailing, food delivery and pickup, grocery delivery and pickup, general retail, and travel, as well as digital payment apps.
- **Third, to sell in-app advertising.** Examples of apps using in-app advertising as their primary monetization strategy are social network and short video sharing apps.

Different methodologies and data sources are used to estimate billings and sales facilitated by the App Store ecosystem for each of these monetization strategies. Data sources include data from Apple, app analytics companies, market research firms, and individual companies. To ensure the reliability and robustness of the estimates, key inputs are validated and compared from different data sources and updated over time if needed.

As a result, the estimates in this report may differ from those presented in previous years' reports due to methodological improvement and adjustments for changes in underlying third-party data. Where and when applicable, the reliance on updated estimates is noted in this report.

While this analysis captures the major app monetization strategies, it does not capture all of the ways in which the App Store ecosystem facilitates sales, or all of the benefits created by apps. For example, it does not capture benefits that companies derive from "companion apps" that raise the value of their goods and services, including smart home apps and health apps. Apps developed by Apple, such as Apple Music, as well as mobile browser apps, such as Google Chrome, are excluded from this analysis.

## *Sales and distribution of digital goods and services*

Developers can choose to monetize their iOS apps in several ways, which has implications for the appropriate way to estimate total sales that the App Store facilitates. For example, some developers can choose to monetize their iOS apps only through the App Store, and those apps can only be used on the iOS platform. For these types of apps, App Store billings are equivalent to sales generated by the app. For iOS apps that sell digital goods and services only through the App Store, this study counts total billings,

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which include Apple's commission.<sup>11</sup> Billings represent the total amount customers pay. For games that sell through webstores, this study adjusts spending on the most common webstore games to better reflect sales facilitated by the App Store.

Other developers may choose to monetize their iOS apps outside of the App Store—through the reader rule for instance—while the content would be consumed on an iOS app. Some monetize both through the App Store and other platforms or devices, and the app content can be consumed on multiple devices. In both cases, purchases and consumption are not device specific and purchases may not reflect where the consumption of the product or service happens.

In the case of multiplatform apps that have digital content that can be consumed either in-app or on another device, to illustrate why App Store purchases may not adequately reflect consumption, consider for example a subscription to the video streaming service Hulu. A user can purchase a subscription to Hulu on their desktop or mobile browser, for example, but watch most of the content through the Hulu app on iOS devices. In this instance, App Store billings would be zero and would understate the value of the Hulu product enjoyed through apps on Apple devices.

When purchase and use differ significantly, App Store billings do not reliably measure engagement with iOS apps and a different approach is used for attributing the appropriate share of billings and sales to the App Store ecosystem. In those cases, estimates rely on the proportion of use that occurs on apps in the App Store ecosystem to estimate how much of the total sales of multi-platform apps (App Store plus non-App Store) is facilitated by the App Store ecosystem.

This study estimates the volume of sales facilitated by the App Store ecosystem for several categories of apps: video streaming, e-books and audiobooks, newspapers and magazines, and enterprise. This study also considers variation in users' app consumption habits across categories, using third-party research. For example, consumers often listen to audiobooks through apps on mobile devices, while they are more likely to stream videos on smart TVs. Additionally, when the data is available, variation in the consumption patterns of iOS (and non-iOS) users by app type is taken into account. Estimates of total sales rely on inputs from third-party sources, typically market research firms.<sup>xxii</sup> The sales are apportioned using the share of content consumed in apps on any platform, based on information collected from marketing surveys, company reports, or data on usage patterns.<sup>xxiii</sup> Finally, usage is apportioned to Apple iOS devices specifically using the iOS market share for each device category in the US.<sup>xxiv</sup>

Enterprise apps, which allow businesses and organizations to provide tools and capabilities on smartphones and tablets, are treated differently than consumer apps. Usage patterns are more heterogeneous for enterprise apps than consumer apps, and app- and desktop-based usage of enterprise products tend to be more integrated. We individually estimate sales from major enterprise apps or families of apps – Microsoft Office 365, Google Workspace (i.e., enterprise versions of Google productivity tools such as Gmail and Google Docs), Adobe (Acrobat), Dropbox, Box, Webex, Zoom, and Slack. We also

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<sup>11</sup> In 2024, Apple's commission rate was 30% for the sale of digital goods and services; for subscriptions, it was 30% for the first year and 15% for any subsequent years. Developers who made up to \$1 million USD in the prior calendar year for all of their apps, as well as developers new to the App Store, qualify for the Small Business Program and pay a reduced commission of 15%.

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include an aggregate market-level estimate for mobility management apps, which allow employees to securely access business content.

### *Sales of physical goods and services through the app*

Many developers monetize their apps by selling physical products through their apps. These include:

- Apps that let customers purchase physical goods and services. This study broadly refers to these as m-commerce apps.<sup>12</sup> The group includes apps for general retail, ride hailing, food delivery and pickup, grocery delivery, and travel.
- Apps that enable digital payments or transfers, such as peer-to-peer transfer apps.

### *M-commerce*

In the US, mobile apps have been an increasingly popular e-commerce channel. Apps of retailers such as Amazon and Target allow consumers to browse and purchase physical goods directly in the app and offer delivery. In addition, mobile apps—including those for ride hailing, food delivery and pickup, grocery delivery and pickup, and mobile pickup ordering—have been central to the creation or expansion of certain business models.

Sales on m-commerce apps do not happen through Apple’s in-app purchase system.<sup>13</sup> Third-party data estimates the volume of sales of physical goods and services from transactions on mobile apps.<sup>14</sup> Results are provided for several categories of apps: general retail, food delivery and pickup, travel, grocery, and ride hailing.

For many of the m-commerce categories, this study relies on Statista’s Digital Market Outlook and Mobility Market Outlook data for online sales revenue. In 2022, Statista updated their methodology to estimate industry revenues to use current exchange rates, rather than fixed exchange rates, with the goal of being more accurate. As a result, their estimates for all years, including 2019, were retroactively updated.

For general retail and grocery, total e-commerce and m-commerce sales estimates are based on the EMARKETER data. In 2024, EMARKETER updated their methodology for estimating e-commerce and m-commerce. As a result, their estimates in 2019 were retroactively updated. EMARKETER periodically updates its estimates for several reasons, including, but not limited to, incorporating new, higher-quality data sources, adjusting the weights assigned to different sources, and refreshing foreign exchange assumptions (e.g., changing the base year used in currency conversions).

For each app category, the total volume of e-commerce or m-commerce sales relies on estimates of third-party sources, typically market research firms.<sup>xxv</sup> This study then apportions the volume of sales, if necessary, to purchases that occur via smartphone and tablet apps. For example, for online food delivery and pickup, customers may place orders via an app, a mobile browser, or a desktop browser. The share of each app category’s sales that occur via mobile apps are estimated using information collected

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12 M-commerce refers to the buying or selling of goods and services on mobile devices, either through mobile apps or mobile browsers.

13 Since the launch of the App Store, Apple’s policy has been to not charge a commission on sales of physical goods and services.

14 The sales associated with purchases made on mobile browser apps are excluded.

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from marketing surveys or data on usage patterns.<sup>xxvi</sup> Finally, usage attributable to Apple platforms is apportioned based on the overall iOS market share.<sup>15,xxvii</sup>

### *Digital payments*

Digital payment apps continue to become increasingly popular in the US. In the US, Venmo and Cash App are two of the most popular payment apps. These apps charge merchants a fee on purchases paid for with their apps.

This study estimates transaction fees collected by developers from customers or merchants for payments and transfers occurring through apps on the iOS platform.<sup>16</sup> For peer-to-peer transfer apps in the US, we use the ratio of total transaction fees to TPV from Venmo and Cash App to estimate the transaction fees collected by the apps.

### *In-app advertising*

In-app advertising is a frequently used and effective method of monetizing apps whereby developers publish advertisements within their apps. Prominent examples of apps that primarily make money through in-app advertising are Instagram, Twitter, YouTube, and Pinterest in the US. Examples of games are Rolly Vortex and Helix Jump. These apps tend to be free to download and use, but in-app advertising can also be a complementary monetization strategy for paid apps or apps with in-app purchases.

Users have been spending more and more time on their mobile devices, particularly using apps, which has led to an increased share of digital marketing expenditures going toward in-app advertising. Given that apps are used frequently throughout the day—for example, during commutes or moments of downtime—in-app advertising allows advertisers to reach users in ways that other marketing channels cannot. Compared with mobile web, the app environment is a more effective way for advertisers to reach their audiences, with in-app advertisements allowing for personalized and contextually relevant ad messages.

Technology research firm Omdia estimated that in-app ad sales for iOS apps were \$75 billion in the US in 2024, with almost \$8 billion tied to games.<sup>xxviii</sup> This estimate includes revenue generated from the publishing of advertisements within apps only and excludes advertising on mobile web (including mobile browser apps), search advertising, and Apple Ads. Omdia derived this estimate based on ad sales reported by large digital advertising firms, and then used data analytics from mobile ad platforms to apportion the iOS share, limited to in-app advertising only (i.e., by removing mobile web advertising), and to adjust for ad price differences between the iOS and Android app platforms. This study uses Omdia’s research for in-app ad sales. In 2024, Omdia updated their estimates from previous years to account for updates to their projections. When calculating 5-year changes, Omdia’s retroactively updated estimates are used.

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15 Apportioning by iOS market share almost certainly results in a conservative estimate because owners of iOS devices tend to spend relatively more than owners of Android devices.

16 This study excludes digital payment apps and services based on near-field communication, such as Apple Pay. Mobile commerce transactions that occur within an app and are paid with Apple Pay are included in m-commerce sales.

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### *Additional dimensions not included in estimates*

The App Store enables consumers to sign up for subscriptions and make purchases of digital goods and services. This may lead to incremental sales for app developers regardless of the platform chosen by users to consume the digital goods and services. Apps have also allowed traditional firms and industries to expand their offerings of a wide range of products via connected devices—devices that typically require the use of apps to control and monitor them. The App Store has enabled a new generation of home devices like smart thermostats and doorbells, for example, as well as new possibilities for health like connected blood pressure cuffs, smart scales, and even hearing aids.

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## About the authors



**Jessica Burley, Ph.D.** is a Manager at Analysis Group. Dr. Burley specializes in the application of microeconomics and statistical analysis to the areas of antitrust, competition policy, labor disputes, and commercial disputes in a variety of industries, including consumer products, manufacturing, and technology. She has also assisted with reports pertaining to policy and analytics in technology markets. She holds a Ph.D. in Economics from the University of Toronto where she was also an instructor in undergraduate economics.



**Professor Andrey Fradkin, Ph.D.** is an economist whose research focuses on digital platforms, including the design of platform algorithms, as well as user behavior in digital environments. He is currently an assistant professor of marketing at the Boston University Questrom School of Business and an affiliate of the Boston University Economics Department. His work has been published in leading journals across marketing, economics, and computer science, and he has provided expert input on the digital economy to the President's Council of Advisors on Science and Technology and the Federal Trade Commission. Prior to joining Boston University, he was a postdoctoral fellow at MIT's Initiative on the Digital Economy and earned a Ph.D. in Economics from Stanford University.

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