



Mobile App Evolution

— 2020 —



Mobile App Evolution Report Overview

In this report, produced by App Annie and commissioned by Facebook, we examine historical trends in the mobile app ecosystem to understand how the app landscape has evolved over the last 5 years. In particular, we set out to answer three key questions:

1. How has the global app economy evolved in the past 5 years?

- How strong has growth been in downloads vs. engagement?
- Which are the key categories that evolved?
- How diverse are the top apps & companies?
- Are new apps finding faster or more success in adoption?

2. How has this evolution impacted consumer choice?

- Do users have more choice in the app economy?
- In what categories of apps are users spending more time?
- What factors are driving evolution in different categories?

3. How have successful apps grown?

The first half of the report focuses on global mobile app trends, with key call outs for the United States. In the second half, we examine trends in select countries. We highlight the United States, India, and for Europe, we pull out a few regional highlights (United Kingdom, Ireland, Italy, Spain, France, Germany, Denmark, Finland, Sweden) that are grouped to illustrate the similarities among user behavior.



Methodology

The analyses in this report are based on the downloads and usage estimates available through App Annie Intelligence.

- Data is for iOS and Google Play Worldwide (Google Play data excludes China).
- Download estimates are of initial installs and do not include pre-installs.
- Time spent and sessions data is based on Google Play to allow for the greatest breadth of country coverage.
- Categories analyzed include Communications, Social, Entertainment, Games, Photography, and Video Players and Editors.

App Annie usage data for iPhone and Android phone was derived from mobile usage data collected from a large sample of real-world users, combined with additional proprietary data sets.

- For the purposes of this report, an active user is defined as a device having one or more sessions with an app in the time period. A single person may be active on multiple devices in any time period, and therefore be counted as one user per device in the total active users.
- A session, as defined in this report, is the period for which a user has a given app opened in the foreground with the screen on. Background data usage does not contribute to session length. Push notifications are not considered active use and, as a result, do not count towards estimates of users, sessions, or session time.
- For Android total time spent calculations, some apps (such as system apps and others which do not appear on Google Play) may not be included.

Downloads and usage metrics used in this report are based on unified apps made possible by App Annie's exclusive DNA. In unified apps, similar versions of the same app with different names and on different platforms are unified. For example, Fruit Ninja and Fruit Ninja Free on iOS, and Fruit Ninja and Fruit Ninja Free for Android on Google Play are all aggregated and ranked as a single Fruit Ninja unified app.

- Categories are self-selected by publishers. Some companies publish different versions of the same unified app under multiple categories across iOS and Google Play, and/or on 1 of the app stores, and/or in different countries. To avoid duplication of a unified app across categories in these cases, this report uses the category of the predominant Google Play app based on worldwide downloads. If the app is not on Google Play, the report uses the iOS store category. TikTok, for example, has iOS versions on Entertainment and Photo and Video, and Google Play versions on Social and Video Players and Editors; in this report all versions of the TikTok app are classified as Social (the predominant Google Play app category based on worldwide downloads). In another example, Twitter is published in the News category across all platforms.
- Data is based on the current and historical App Annie DNA relationships as of the time of writing. App Annie DNA relationships are subject to change over time.
- Occasionally, a company may decide to shift an existing app from one category to another category. In these cases, the report is based on the store categorization up until the time of writing.

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Executive Summary

1. Global app economy is growing and vibrant

- The app economy has grown across key metrics of downloads (10% CAGR), total sessions (15%) and total time spent (25%) in the past 5 years.
- Diversity exists in the global app economy, with Top 100 apps representing many new entrants, categories, and companies.
- As competitive pressure increases, top apps make up a smaller proportion of time spent in the app economy than they did 5 years ago.

2. New entrants can quickly achieve traction

- Apps with a positive word of mouth and awareness can quickly rise to the top.
- More apps are achieving 1M Monthly Active Users, and are getting to 1M downloads faster.

3. Users have benefited as more choices emerge

- The competitive landscape in the global app ecosystem is driving innovation which has, in turn, provided more meaningful choices for users.
- Users are installing and using more apps, in addition to spending more time on apps.
- Users choose and use multiple apps within and across categories to address similar needs.
- In 2019, the average global user had 93 apps installed on their phone and used 41 apps per month, up from 85 and 35 respectively in 2015.

4. Features are blurring across traditional category lines

- App publishers, including the most established ones, incorporate elements from other categories in order to provide additional features that users want for multiple use cases.
- Many Gaming apps have incorporated Social features, and players are more engaged in games with Social features.
- TikTok blends elements from multiple categories (Social, Video, and Entertainment).
- Disney+ blends exclusive blockbuster and long tail content to appeal to broad base of users seeking more and varied entertainment.

**The Global App Economy
is Growing and Vibrant.**



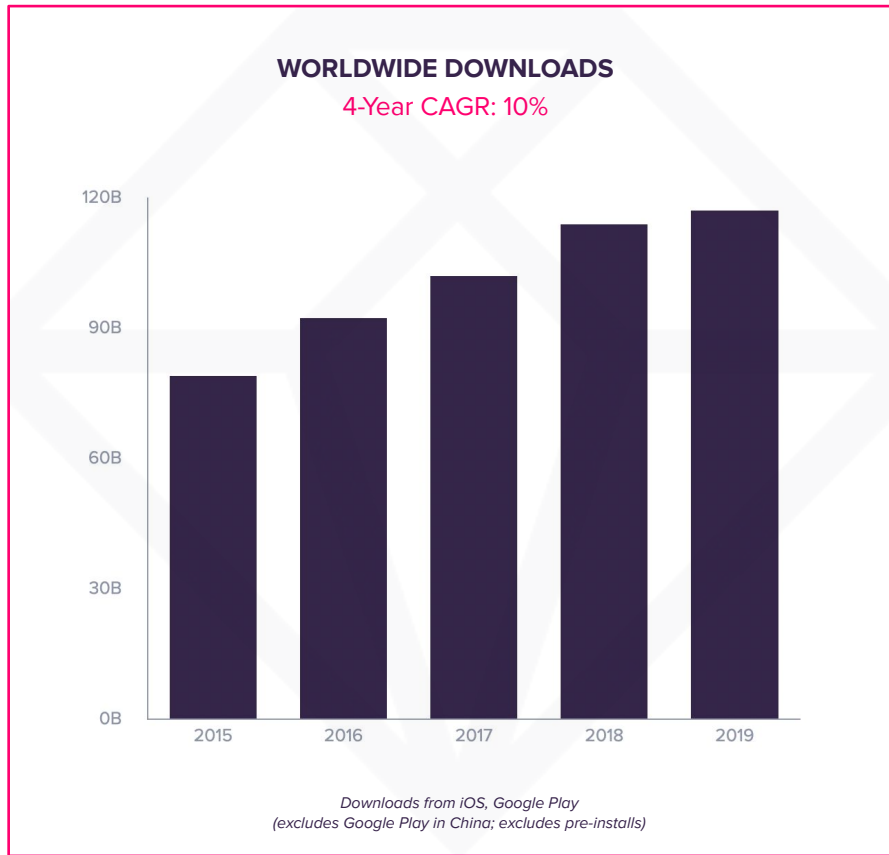
Worldwide downloads grew in each of the past five years — reaching a record 120 billion in 2019

Key countries fueling downloads in the app economy in 2019 are emerging economies including:

- **India** 10% YoY Growth
- **Brazil** 9%
- **Indonesia** 8%
- **Russia** 7%

Users in mature economies also continue to seek new apps, with 2019 downloads reaching record levels in these economies, led by countries such as:

- **United States** 12.3b
- **Japan** 2.5b
- **United Kingdom** 2.1b
- **South Korea** 2.0b
- **Germany** 1.9b
- **France** 1.9b





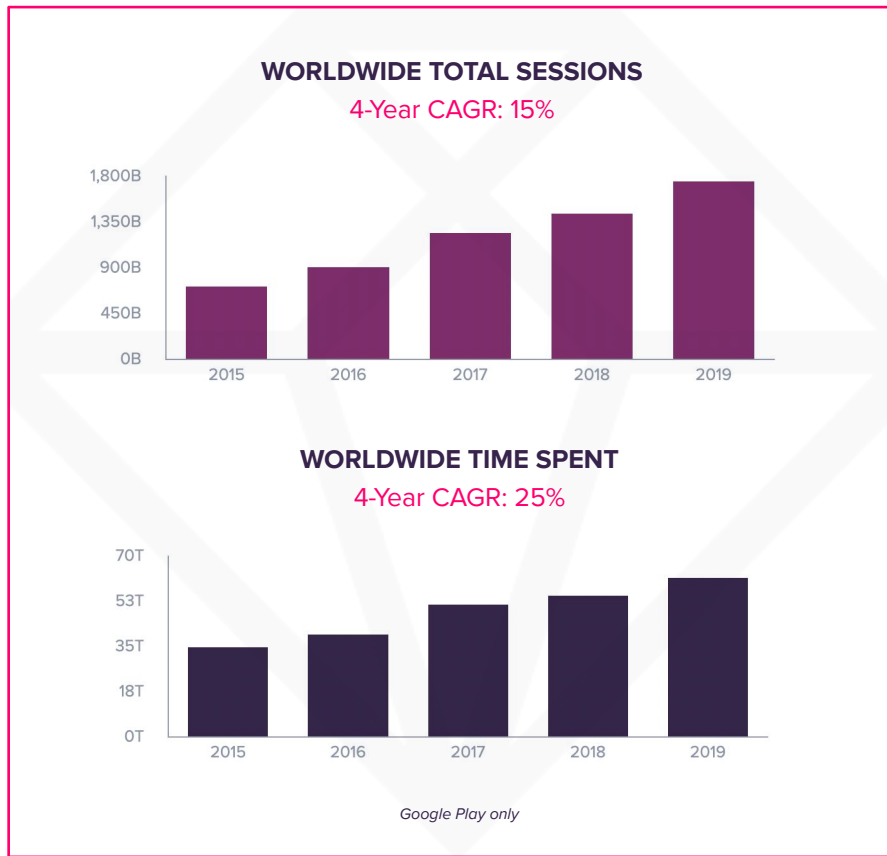
Mobile is increasingly an essential part of our daily lives as users spend 3.1 hours per day in apps

In addition to downloading more apps, users are engaging with apps even more. This engagement growth is much faster than the [growth rate of mobile connections \(2.5% CAGR\)](#) and of [unique mobile users \(4.0% CAGR\)](#), indicating that growth in total time spent is not only because of more users, but is driven by higher time spent per user.

Daily time spent per user has grown to 3.1 hours per user per day in 2019 from 2.1 hours in 2015.

Growth in worldwide sessions and time spent have been driven by a mix of mature and emerging economies. Key countries with growth in both sessions and time spent include the US, India, Indonesia, Pakistan, and Russia.

Across the world, growth in time spent in apps outpaced that of sessions growth, especially in mobile-first economies such as India where growth in time spent outpaced sessions by almost 2x.



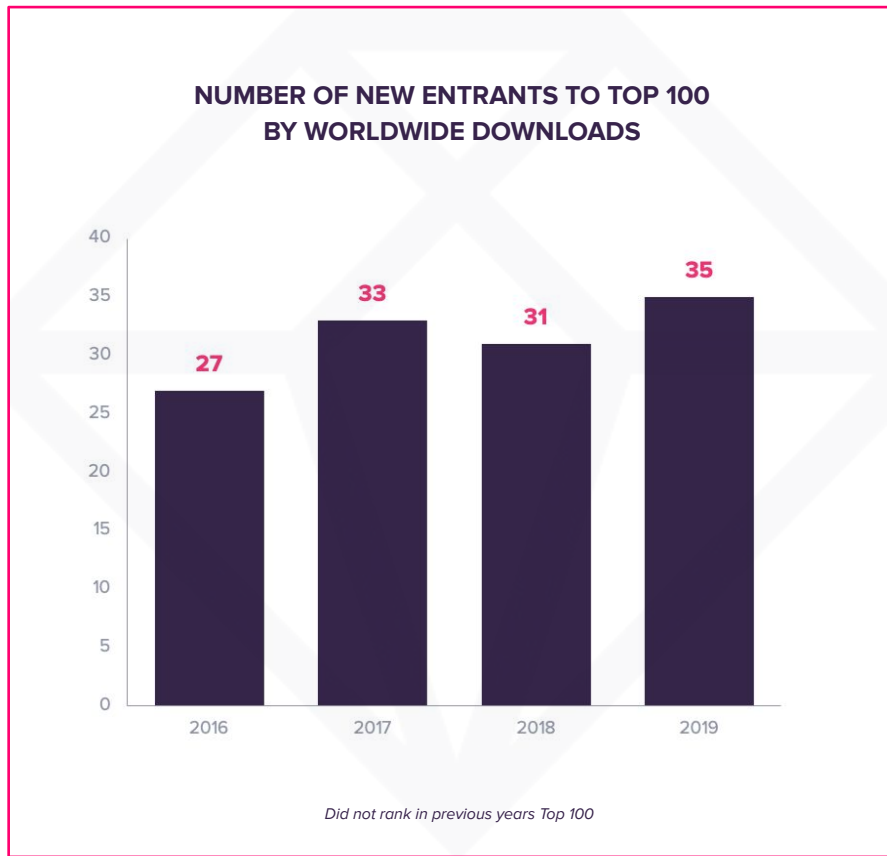


App ecosystem continues to evolve with about 1/3 of Top 100 apps being new entrants

There are many new entrants to Top 100 each year that were not in the Top 100 in the previous year.

- This trend has been increasing over the last few years, indicating that companies need to continually invest and innovate to stay competitive and relevant.
- Activision Blizzard's Call of Duty: Mobile, for example, launched in October 2019 and went straight to the top of the charts, ranking #25 in worldwide downloads for the year

In 2019, 35 of the Top 100 apps were new entrants, up from 27 in 2016. While most were Games, there were new entrants in a variety of categories including Social, Photography, Video, Communications, Entertainment, etc.



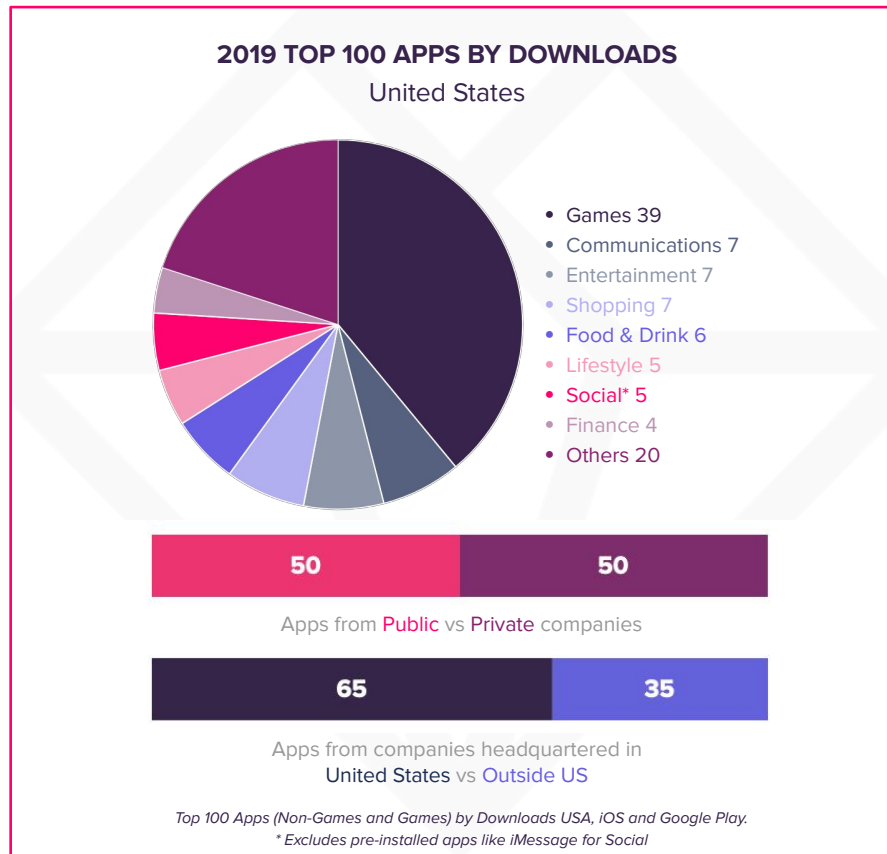


Top 100 apps are comprised of a healthy mix of company types and app categories

Many app publishers, including private companies (which tend to be smaller), could introduce hits.

Whether based in the United States, or internationally, app publishers can find success.































Users are more comfortable downloading and using mobile in more ways than before, serving different use cases and contributing towards diversity in app categories.





Consumers use diverse set of apps from publishers

Top apps by average Monthly Active Users, USA 2019

 Amazon Shopping Amazon Shopping	 Camera Apple Photography	 Gmail Google Productivity	 Instagram Facebook Social	 Notes Apple Productivity	 Samsung Gallery Samsung Photography
 App Store Apple Lifestyle	 Chrome Browser Google Communication	 Google Google Tools	 Mail Apple Productivity	 Phone Apple Social	 Siri Apple Tools
 Apple Music Apple Music & Audio	 Clock Apple Tools	 Google Drive Google Productivity	 Apple Maps Apple Navigation	 Photos Apple Photography	 Snapchat Snap Social
 Calculator Apple Tools	 Facebook Facebook Social	 Google Maps Google Travel & Local	 Messages Apple Social	 Safari Apple Tools	 Weather Apple Weather
 Calendar Apple Productivity	 Facebook Messenger Facebook Communication	 Google Photos Google Photography	 Netflix Netflix Entertainment	 Samsung Calculator Samsung Tools	 YouTube Google Video Players & Editors

Based on average Monthly Active Users (MAU) on iPhone and/or Android Phone. MAU includes pre-installs, sorted alphabetically.
Excludes: Google Play Services, Settings, Samsung TouchWiz

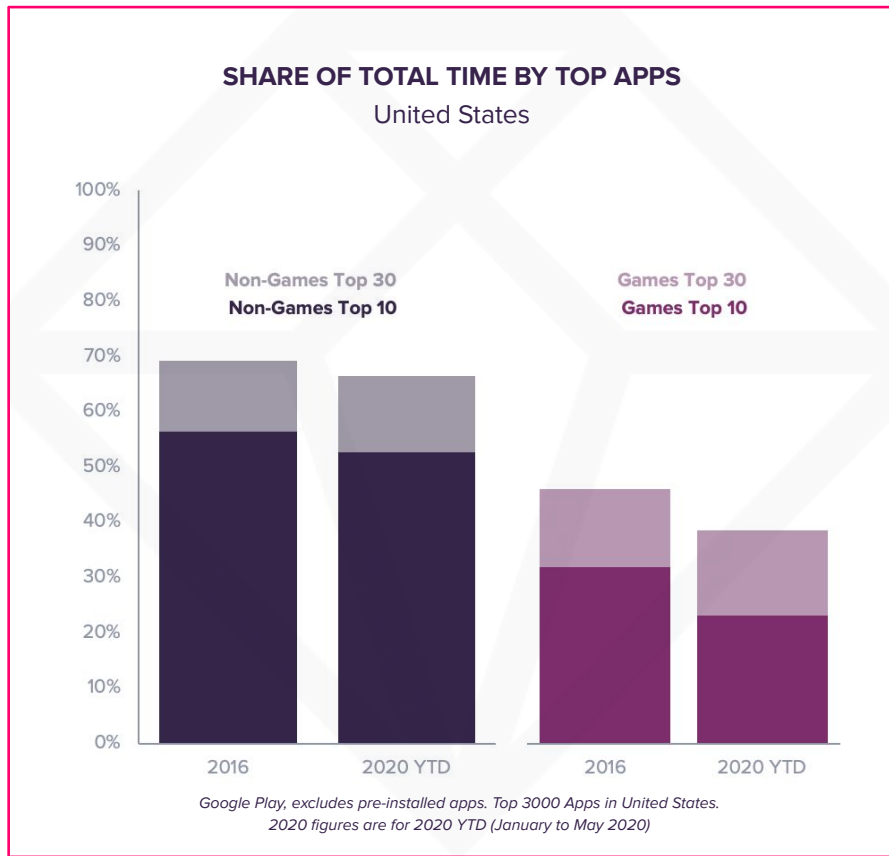


As competitive pressure increases, top apps make up a smaller proportion of time spent

Top 30 apps make up a smaller proportion of time spent now than they did 5 years ago, indicating that **users are deepening engagement with apps outside the top apps.**

- This continues to be true in 2020 even after increased engagement due to COVID-19 and associated shelter-in-place requirements

Smaller and/or newer apps compete across various categories as users grow more open to using and trying out a variety of apps. This is especially true in Gaming, Entertainment, and Video.



**New entrants can quickly
achieve traction.**

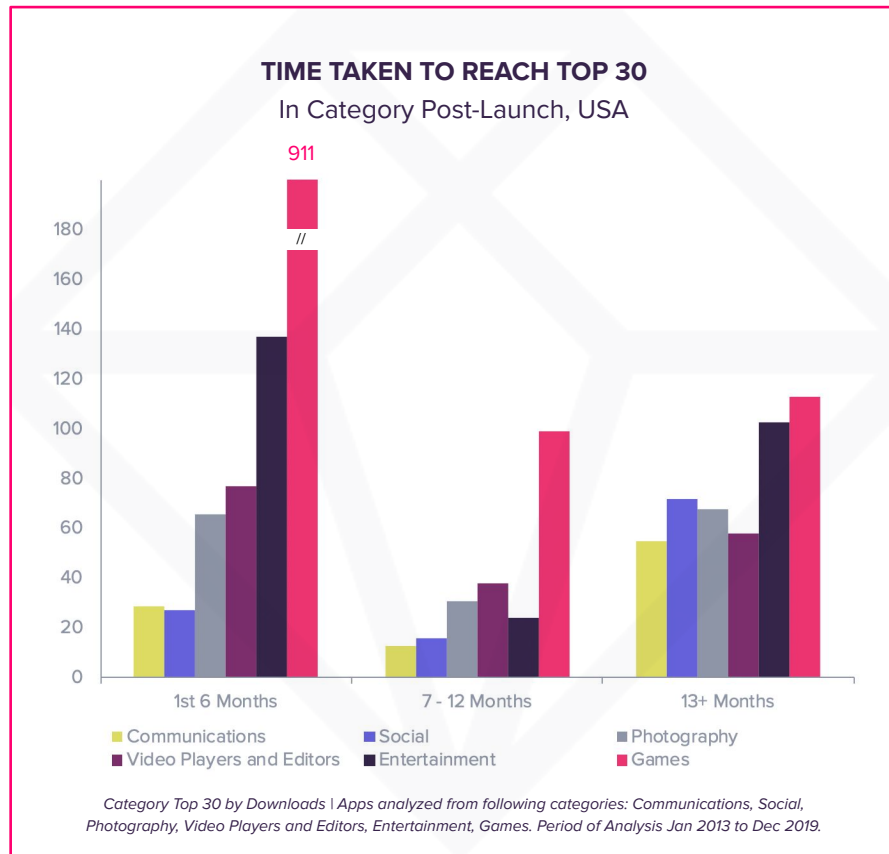


Apps with positive word of mouth and awareness can quickly rise to the top

In the USA, a newly launched app — if it has potential — can typically find success relatively early on. **Over 60% of apps are able to reach their Category Top 30 in the first 6 months.**

Potential drivers for this include:

- Companies focused on larger initial marketing launches instead of slower growth over time, creating more blockbuster launches.
- Improved smartphone capabilities (processing power, storage) and mobile connectivity (a) enables more people to download more apps, (b) drives use cases for more apps with more features.



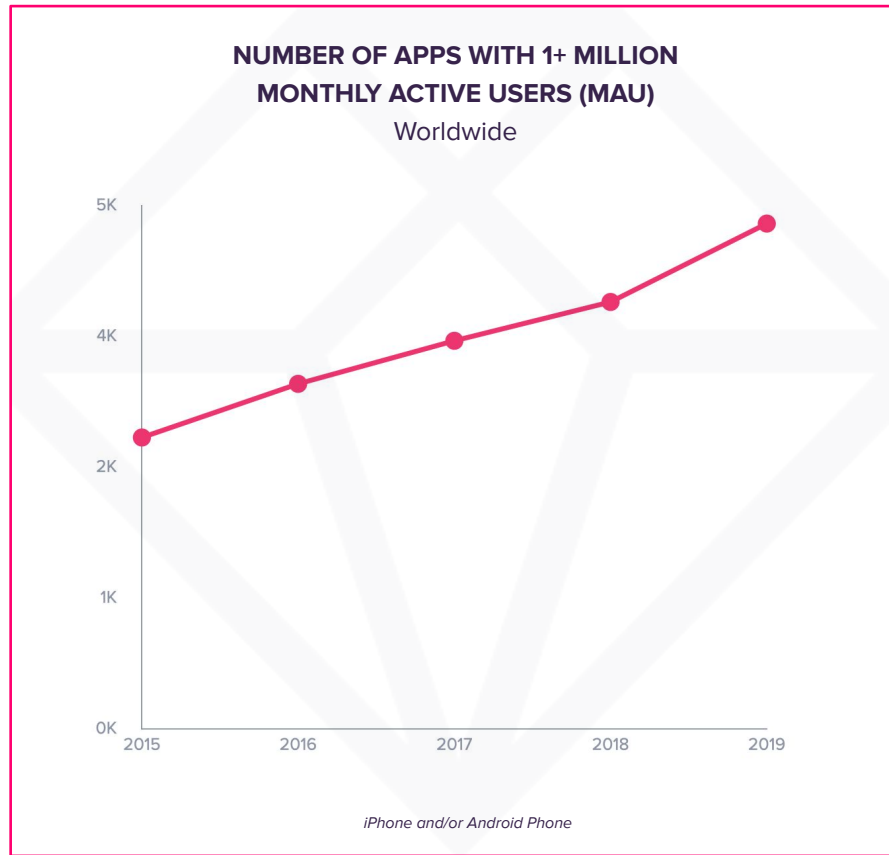


There are increasingly more apps achieving 1M Monthly Active Users

Number of apps with over 1 million Monthly Active Users (MAU) has grown at a CAGR of 15% over the past 4 years. This is much faster than the [growth rate of mobile connections \(2.5% CAGR\)](#) and of [unique mobile users \(4.0% CAGR\)](#).

In 2019, there were over 4,600 apps with over 1 million MAU from both digital-first and traditional companies such as:

- **Entertainment:** Netflix, Roku, Disney, and CBS
- **Shopping:** Amazon, Alibaba, Walmart, and Target
- **Finance:** PayPal, Venmo, Chase, and Capital One
- **Food & Drink:** Uber, DoorDash, McDonald's, and Starbucks





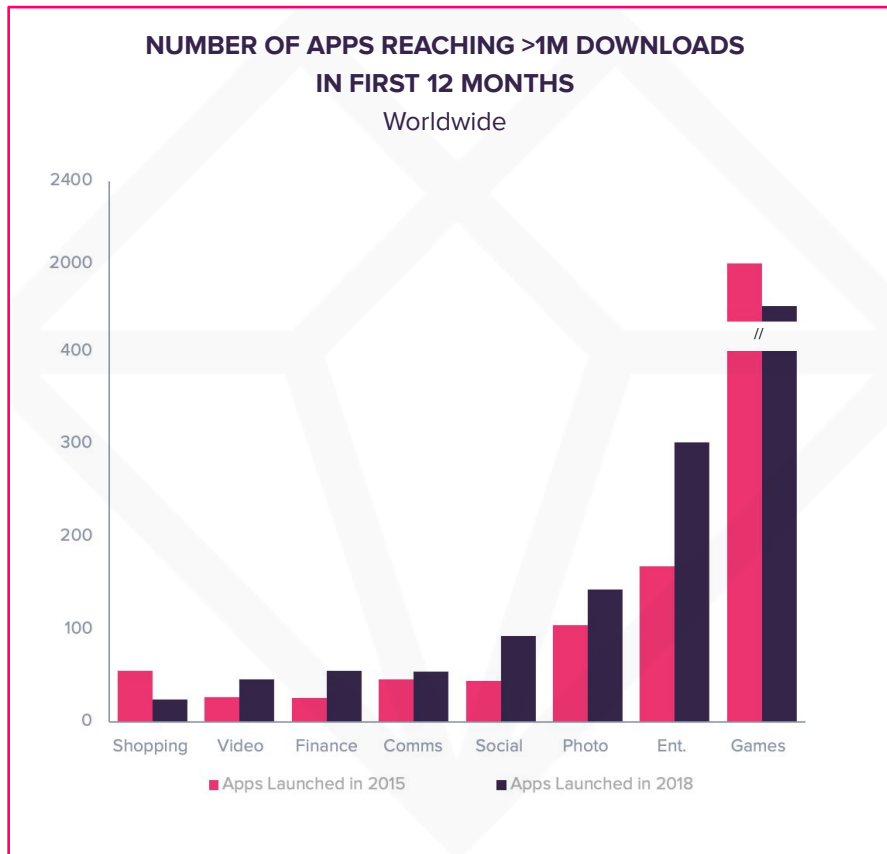
New apps are being downloaded faster as digital sophistication increases around the world

In 6 out of 8 categories analyzed, the number of new apps reaching >1 million downloads within their first 12 months increased between 2015 and 2018:

- Games and Shopping were the 2 exceptions (10% fewer Games and 56% fewer Shopping apps)
- In the other 6 categories, 67% of apps achieved this milestone within 1 year.

Potential drivers for this include:

- [Apps are enabling more services, embedding into many people's daily routines.](#)
- Users increasingly recognize the [personal productivity gains from using apps over mobile web.](#) and are spending more time in-app.



**Users have benefited
as more choices emerge.**

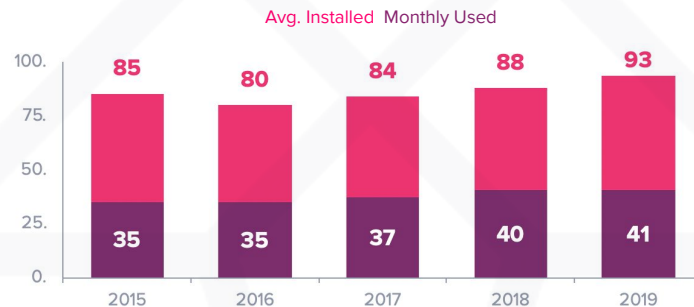


Users are installing and using more apps, in addition to spending more time in them

In 2019, users had 93 apps installed on their phones and used 41 of them on average. This has risen from 5 years ago, when users had 85 apps installed and used 35 of them

In 2019, users spent 3.1 hours per day in apps on average, compared to 2.1 hours 5 years ago.

AVG. INSTALLED & MONTHLY USED APPS PER USER



AVG. HOURS SPENT ON APPS PER USER PER DAY



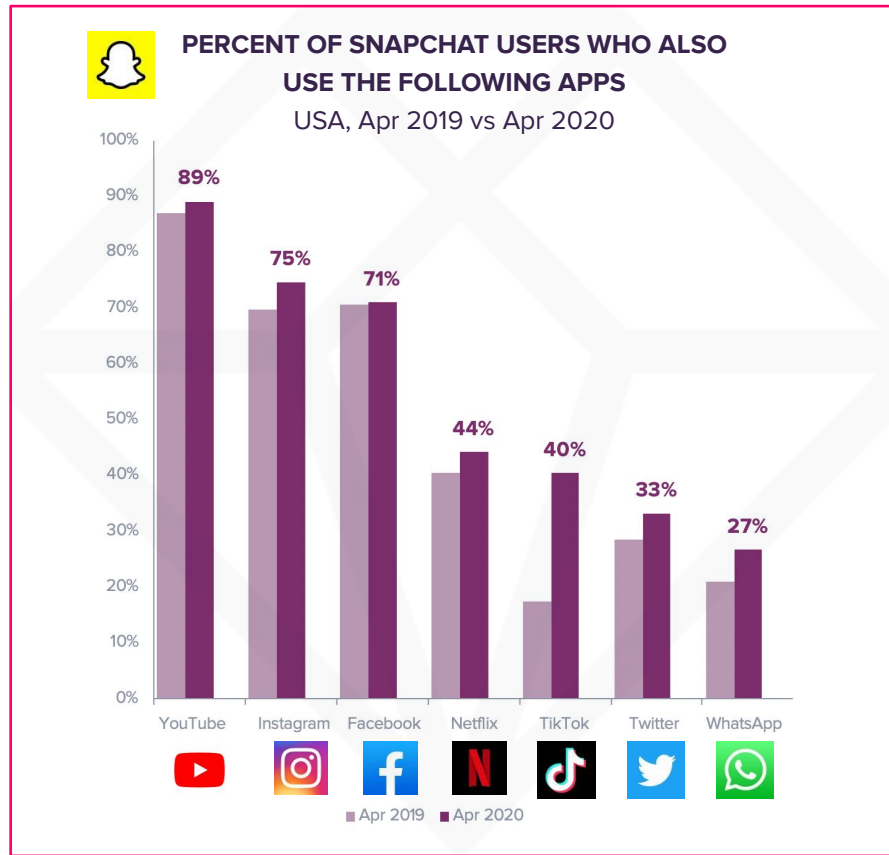
Worldwide Average, Android Phones



Users choose and use multiple apps within and across categories to address similar needs

There is high degree of overlap among top apps, within and across categories. For example, 89% of Snapchat's users also used YouTube in Apr 2020, its highest overlap of users among top video and entertainment apps in the US, while 75% of Snapchat's users also used Instagram.

TikTok saw the greatest YoY increase in cross-app usage of Snapchat from 17% to 40%, indicating that competition in blended social and short video is heating up as companies launch new entrants.





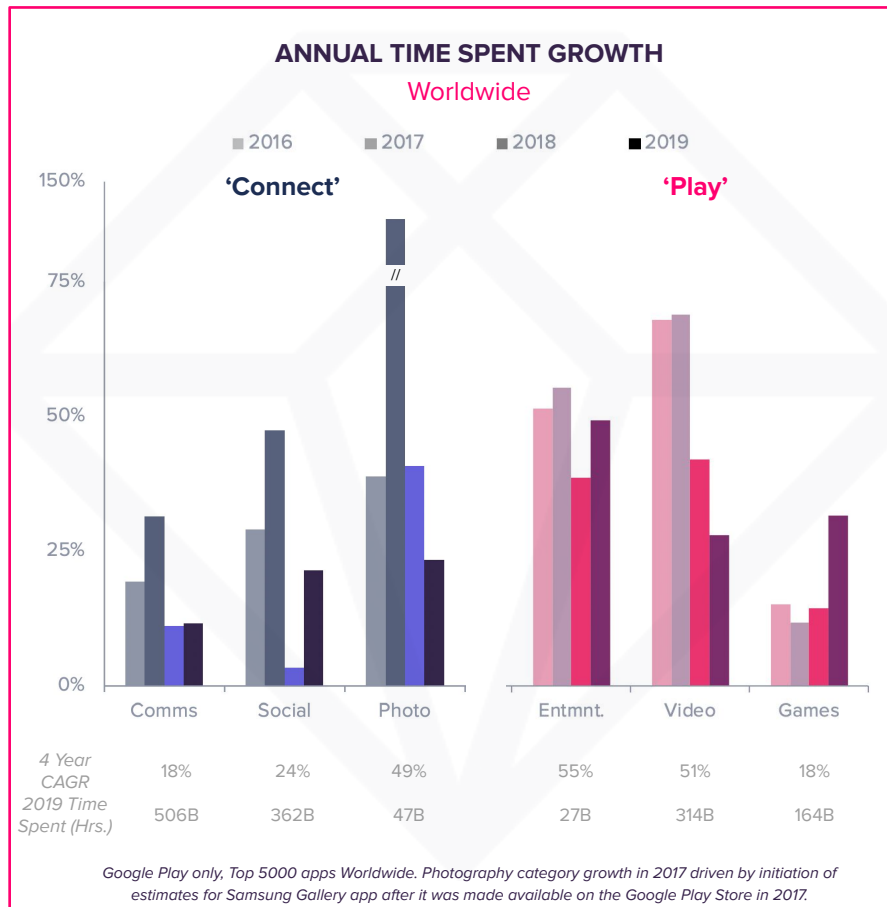
Users are spending significantly more time engaged in apps, especially in categories inspiring play

Growth across differing app categories suggest that users are continually seeking new apps for different use cases.

Video Players and Entertainment are the fastest growing categories.

- These entertainment-heavy 'play' categories are offering an increasing variety of social features as well as integration with social apps.

Video Players & Editors is the top category contributing to growth in time spent, accounting for 22% of time spent growth in 2019.



**Features are blurring across
traditional category lines.**



Top apps have features that blur category lines

Established apps have incorporated features from other categories over the years to meet user needs. The following are notable examples in the US:

- **Facebook:** Social app that offers shopping, payments, news, and instant games.
- **Google Photos:** Photo album and sharing app that offers users physical prints and photo books, automatic device backup/storage, and social features like chat and “Memories”, a feature similar to Instagram Stories.
- **iMessage:** Apple’s built-in messaging app that offers users payments, and soon-to-be-launched social features like mentions in group chats.
- **YouTube:** Video sharing platform that offers premium OTT content and social features like “Community” that allow for rich interactions between creators and audiences, as well as among audiences.

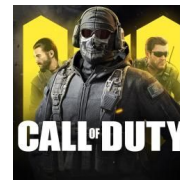
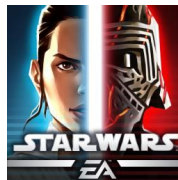
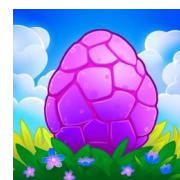
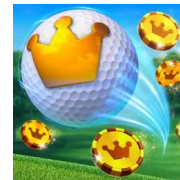




Games from multiple genres offer social features

Incorporating social features is not just a phenomenon of core games — casual and casino games also benefit. Among the Top 50 Games by Time Spent in the US, games from these genres have social features:

- **Action:** Fortnite
- **Casino:** Slotomania
- **Sports:** Golf Clash
- **Strategy:** Clash of Clans
- **Party:** New YAHTZEE With Buddies
- **Puzzle:** Merge Dragons
- **RPG:** Star Wars: Galaxy of Heroes
- **Shooter:** Call of Duty: Mobile
- **Simulation:** Township





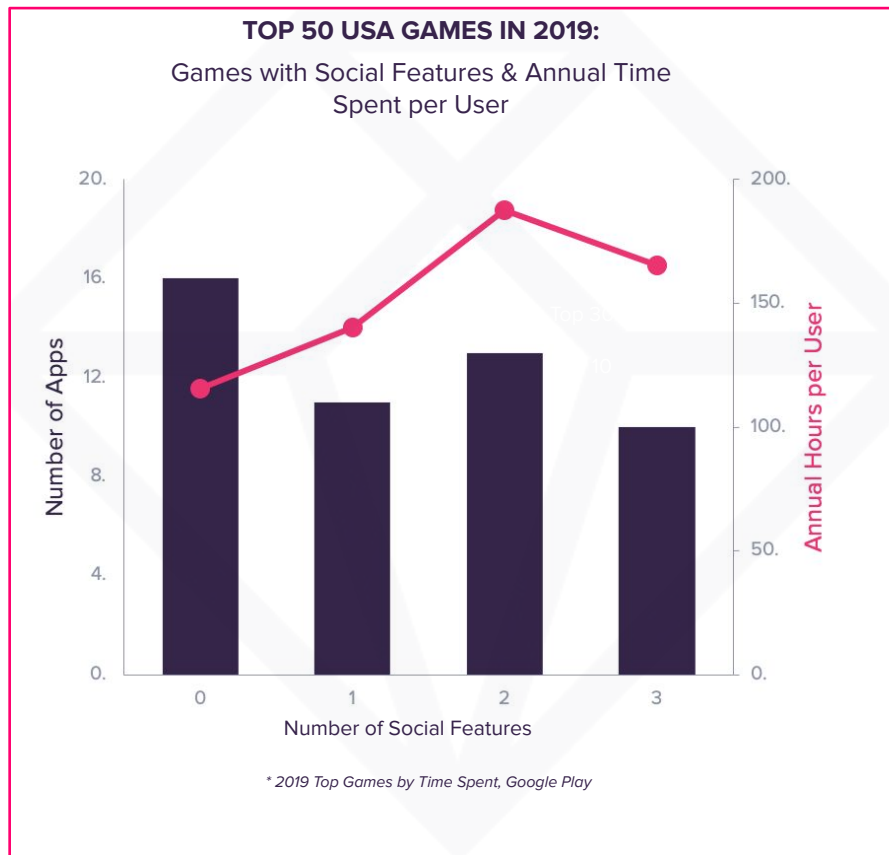
Players are spending more time in games that have incorporated social features

Many top games are innovating by incorporating social features. Beyond multiplayer gameplay, more than $\frac{2}{3}$ of games in the Top 50* have at least one of the following features:

- In-app chat feature (text or voice, or both)
- Guilds or clans
- Social assists, where friends help the player to progress through the game
- Ability to invite friends to play together

Users are turning to mobile to play games with friends as a form of connection, in addition to solo entertainment.

Social features strengthen networks among players, contributing towards deeper engagement.





Fortnite





For Games, adding one social feature like chat / messaging boosts engagement

Epic Games acquired Houseparty (a Social app which enables users to make group video calls) in June 2019, and leveraged it to roll out its 'Party Hub' feature to [Fortnite](#) in September 2019.

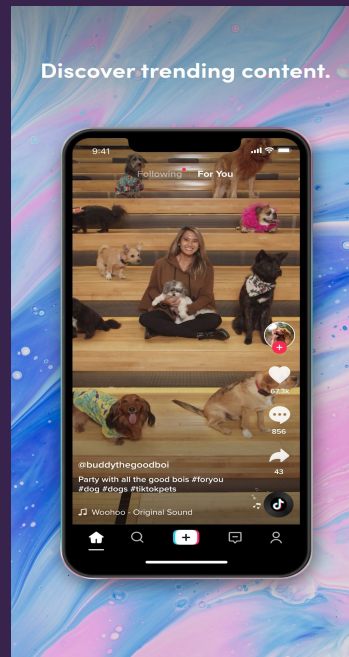
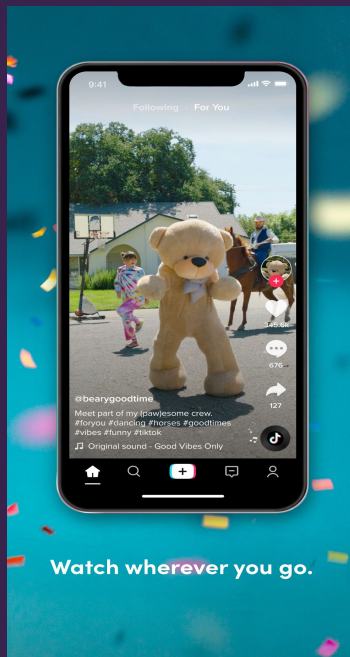
- This updated in-app chat feature allows players to start a game with other chat participants, allows console players to communicate in the app, and allows players to socialize even when not in-game.
- Time spent in Fortnite grew by 130% 3 months after Party Hub's introduction in September 2019.

Houseparty is still available as a standalone app, and also contains casual games allowing users to play games with each other during video call sessions.





TikTok



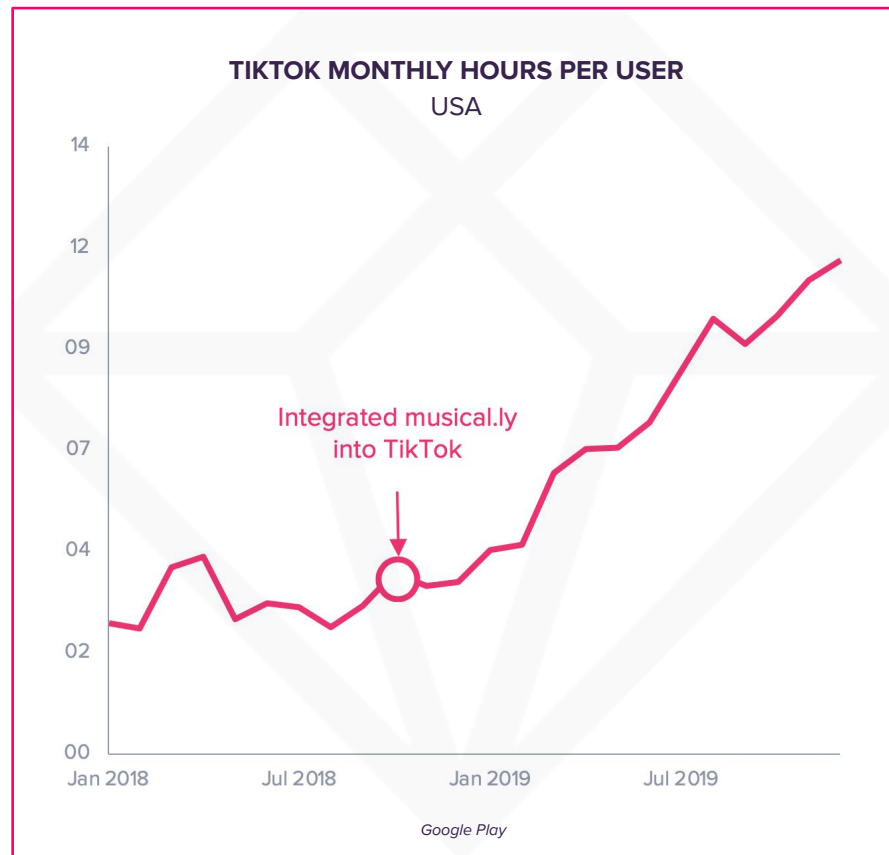


TikTok has risen in rank in the United States by blending elements from Social, Video, and Entertainment

TikTok has grown to become both a top Social app and a source of entertainment, showcasing short, user-generated videos, which often feature lip-syncing or comedy. It is also currently expanding from entertainment to other value propositions such as education, expressing creativity, maintaining relationships, and discussing interests. TikTok's successful blending of elements from Social, Entertainment, and Video has helped it rapidly rise in the charts.

At its inception, TikTok was primarily a tool for users to easily create and edit videos on mobile to post to other platforms. It became a Social app in its own right after requiring creators to post videos before exporting them to other platforms and adding a watermark, helping to drive traffic from other platforms. It also drove engagement by allowing users to enjoy content without registering or logging in, and by using an algorithm to promote relevant videos.

After TikTok merged with musical.ly in Aug 2018, many features and UX were carried forward and additional editing functions, creator tools and interactive filters were added. TikTok also increased ad spend aggressively to drive acquisition and engagement, combining with a viral network effect to grow even faster. By Dec 2019, monthly time spent per user increased to 16h 20min, up from 5h 4min in Aug 2018.





Disney+



Unlimited
entertainment
Always ad-free



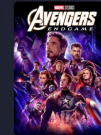
Watch on
4 devices at once



Disney+



Recommended For You



Hit Movies



Continue Watching



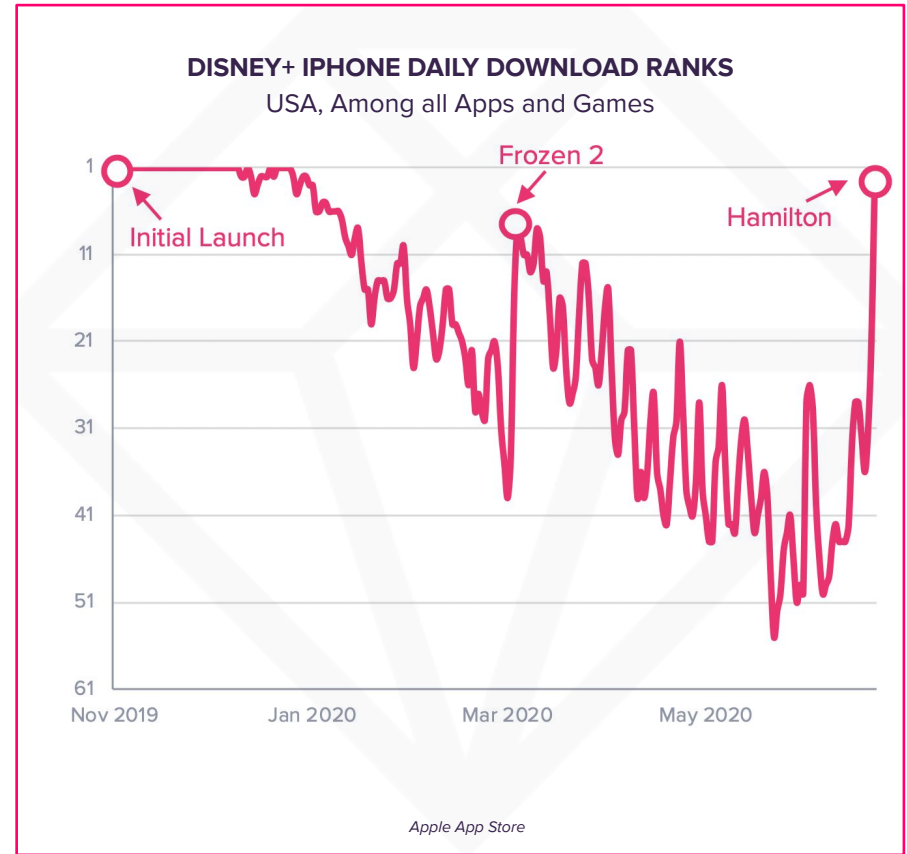


Content is king in the battle of streaming as apps appeal to users seeking more and varied entertainment

Disney+ is Disney's initiation into the OTT app streaming space, launching first in the United States on November 12, 2019. It offers fans exclusive access to Disney, Pixar, Marvel, Star Wars and National Geographic content.

Upon launch in November 2019, Disney+ immediately ranked #1 in the iOS App Store Entertainment category until January 5, 2020. With the release of Hamilton, Disney+ returned to the top spot on July 3, 2020. This success is largely due to superior content, a central component of every successful app's savvy mobile strategy. Disney+ includes an extensive back catalog and obscure titles, as well as properties from acquisitions like The Simpsons, and bundling options with other Disney services like Hulu and ESPN.

In 2020, Disney+ has seen surges in downloads correlated with releases of exclusive blockbuster content, including Frozen 2 on March 15, and a filmed version of Hamilton over the July 4 weekend.



Select Country Breakouts.



Time spent is highest in emerging economies

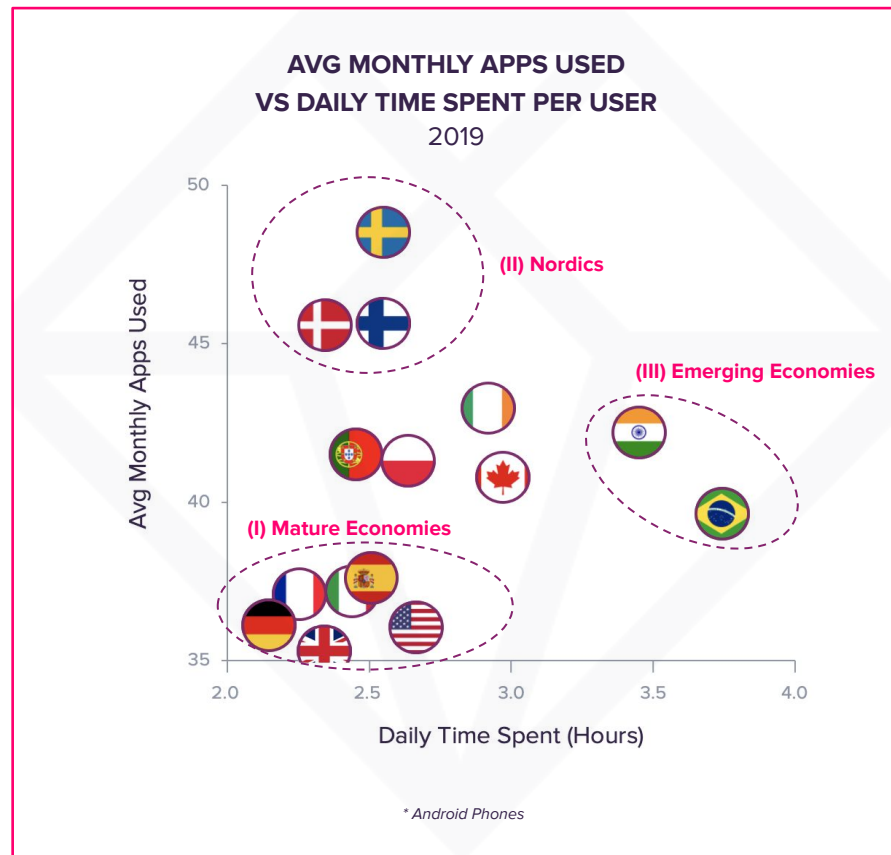
In most mature economies (I), users tend to use a smaller number of apps as well as spend less time in them.

- Users in these countries still often access the internet via both mobile and laptops/desktops.

Users in Nordic countries (II) spend similar time as other mature economies, but use more apps.

Emerging economies (III) such as India and Brazil spend significantly more time in apps.

- Many emerging economies are mobile-first, with users using mobile as their primary access point to the internet.



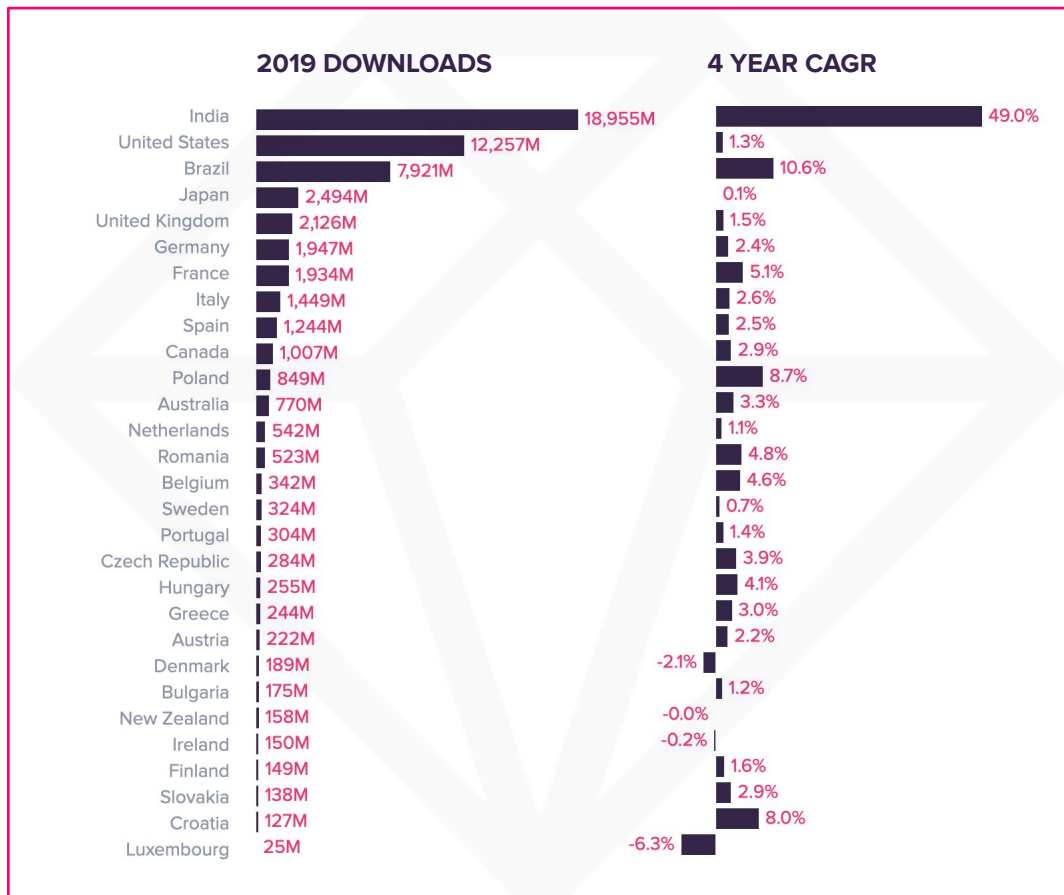


2019 was a record year for downloads for most countries

Users in mature economies continue to download new apps, with 2019 downloads reaching record levels around the world, even though growth has slowed.

Emerging economies tend to have higher downloads growth rates, which drives the worldwide average up.

- India and Brazil are both large app economies with high growth rates, and are key countries driving worldwide growth.
- In particular, large growth in India has been driven by its population, mobile adoption (accelerated by the subsidization of 4G data), and a proliferation of affordable smartphones in recent years.



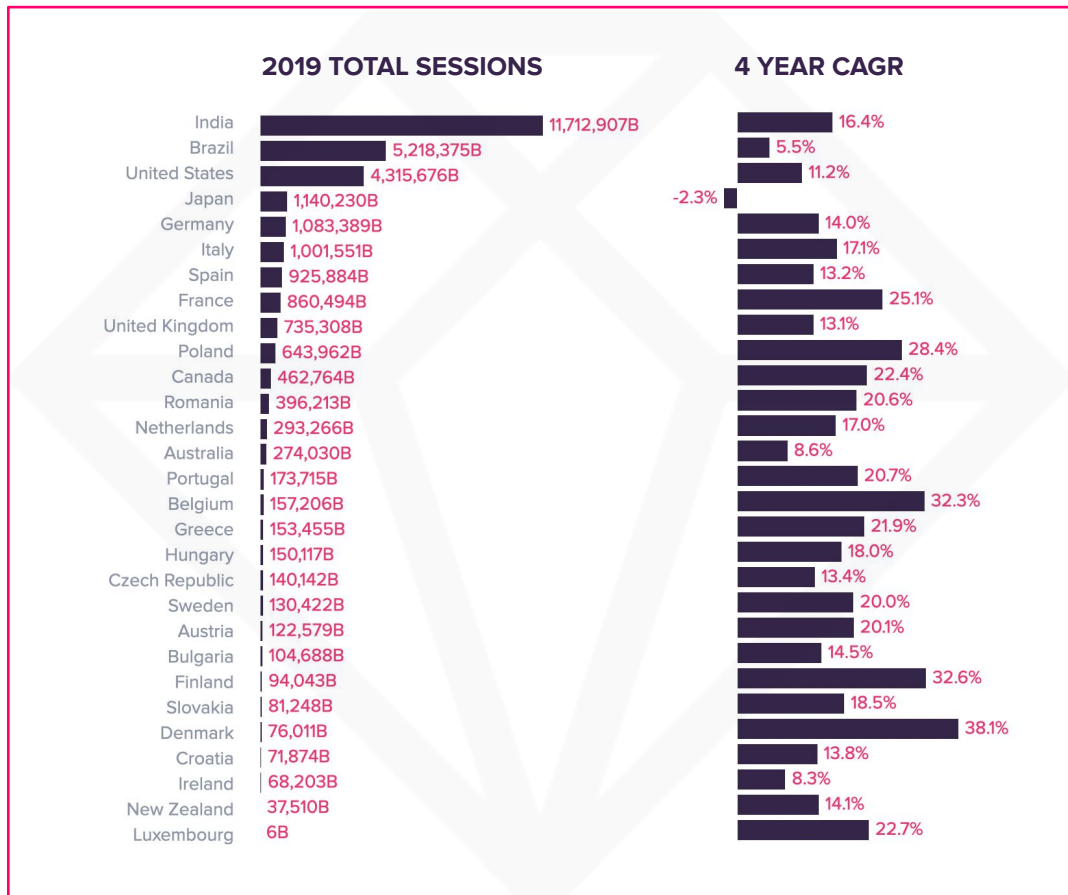


App usage frequency is increasing worldwide

Growth rate of worldwide total sessions (15% 4 Year CAGR) is higher than the growth rates of downloads (10%), [mobile connections \(2.5%\)](#), and [unique mobile users \(4.0%\)](#).

Mature digital economies tend to have higher engagement growth rates as they are further advanced along the app maturity cycle.

Emerging economies such as India and Brazil are still maturing along the app maturity cycle, and are at a stage where downloads growth is higher than sessions growth.

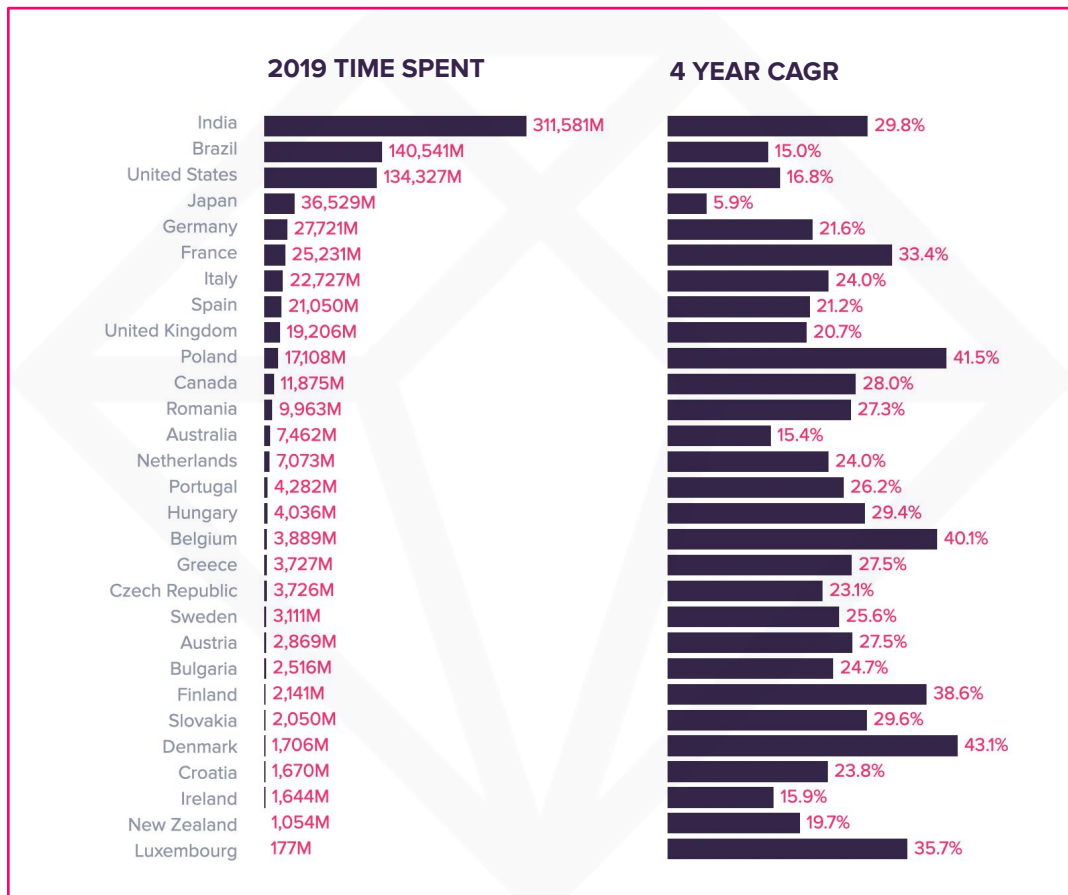




Around the world, time spent grew at a faster rate than downloads and sessions

Growth in time spent in apps outpaced that of sessions growth especially in mobile-first economies, such as India where growth in time spent outpaced sessions by almost 2x.

The world's population is spending more time in apps than ever before, with about a quarter of their time awake - **3.1 hours a day** - spent on apps.



Country Breakout: United States



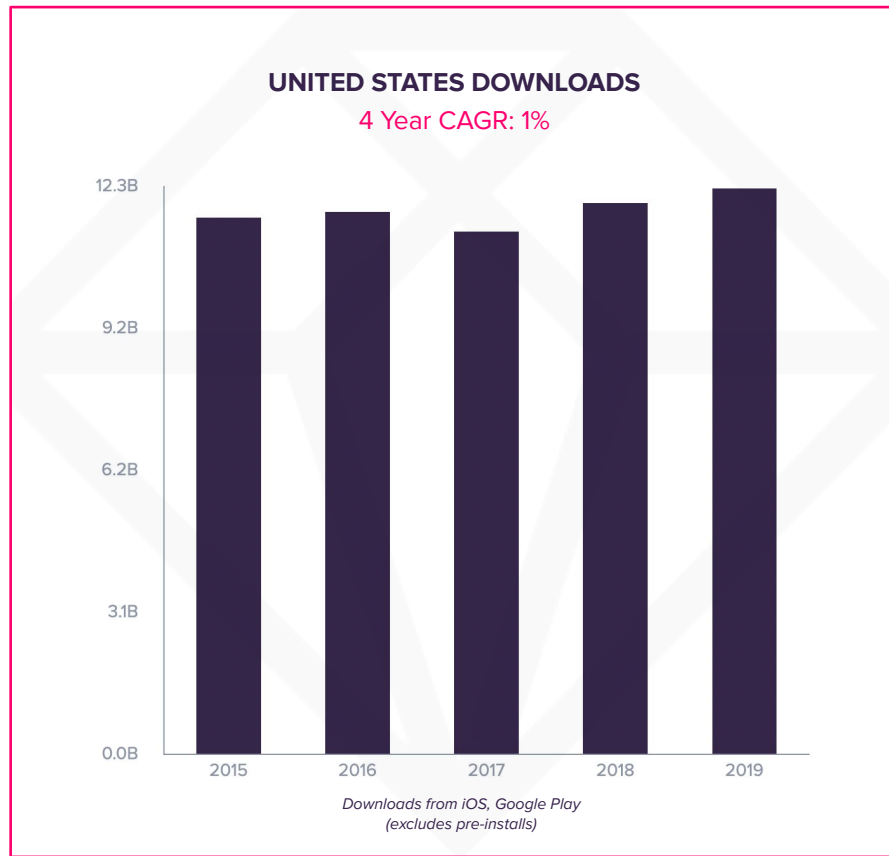
USA had large consistent downloads volume, even though growth has slowed

While downloads growth rate is lower than worldwide average, USA has a large downloads volume compared to other countries, ranking #3 after China and India.

This is similar to trends seen in other mature economies like the United Kingdom and Germany that continue to see consistent numbers of new downloads annually, but growth has slowed.

Top categories for downloads in USA include Games, Entertainment, Social, Photography, Video Players, and Shopping.

- Of these, Games is growing the fastest at 6% in 2019.



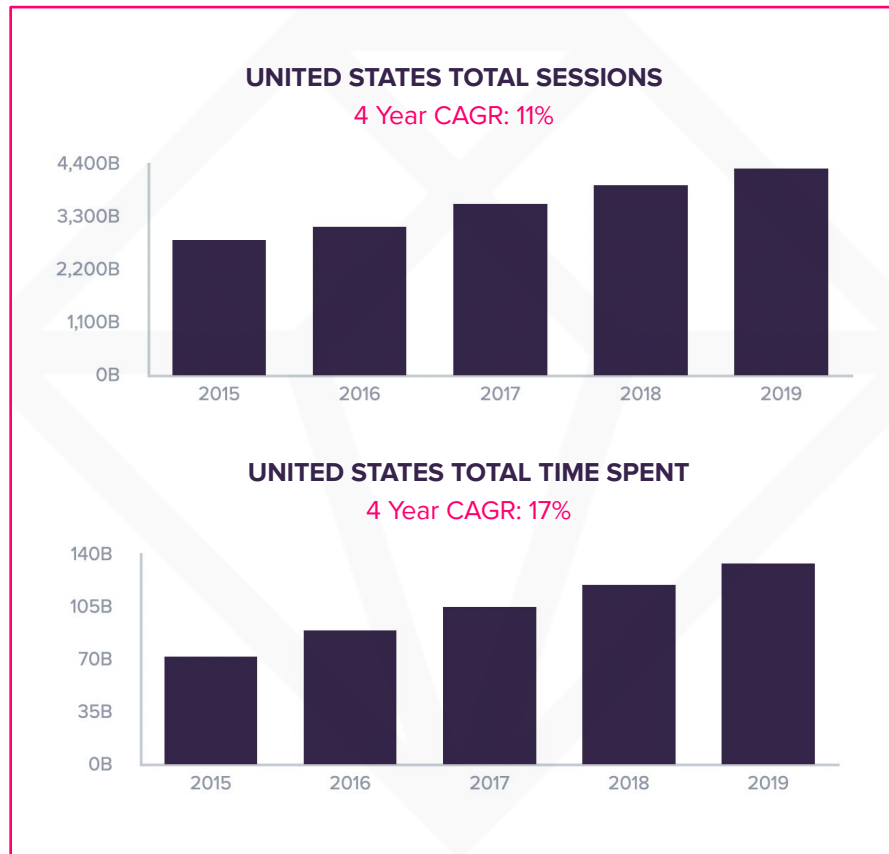


USA had robust engagement growth on a large base of total sessions and time spent

Similarly, while engagement growth rate is lower than worldwide average, USA has a large total time spent and total sessions base.

As a mature digital economy, the USA is further advanced along the [app maturity cycle](#). Many of their users are already comfortable and familiar with similar digital features through desktop and, therefore, have high app engagement.

Time spent in-app is driven by activities in multiple categories, ranging from users checking their emails to browsing news articles or checking their finances.

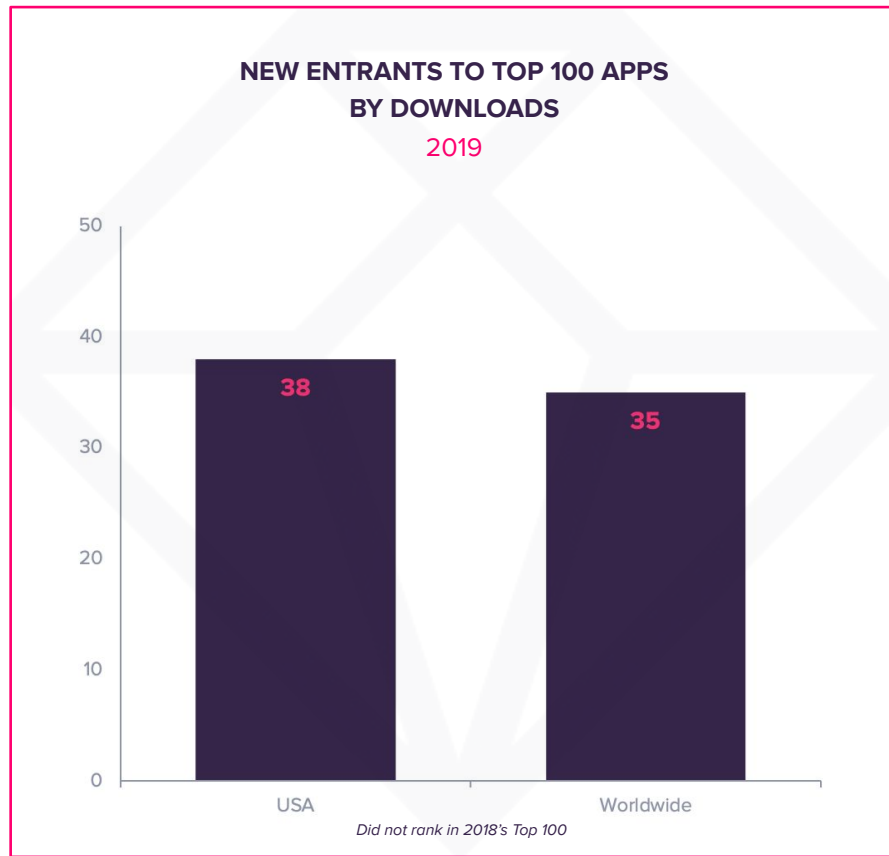




App ecosystem more diverse than other countries with 38% of Top 100 apps in 2019 being new entrants

USA (38) has more apps new to the Top 100 compared to the Worldwide average.

USA is the largest app economy among mature economies, and it is a key target app economy for many app publishers to launch new products, innovate, and invest.

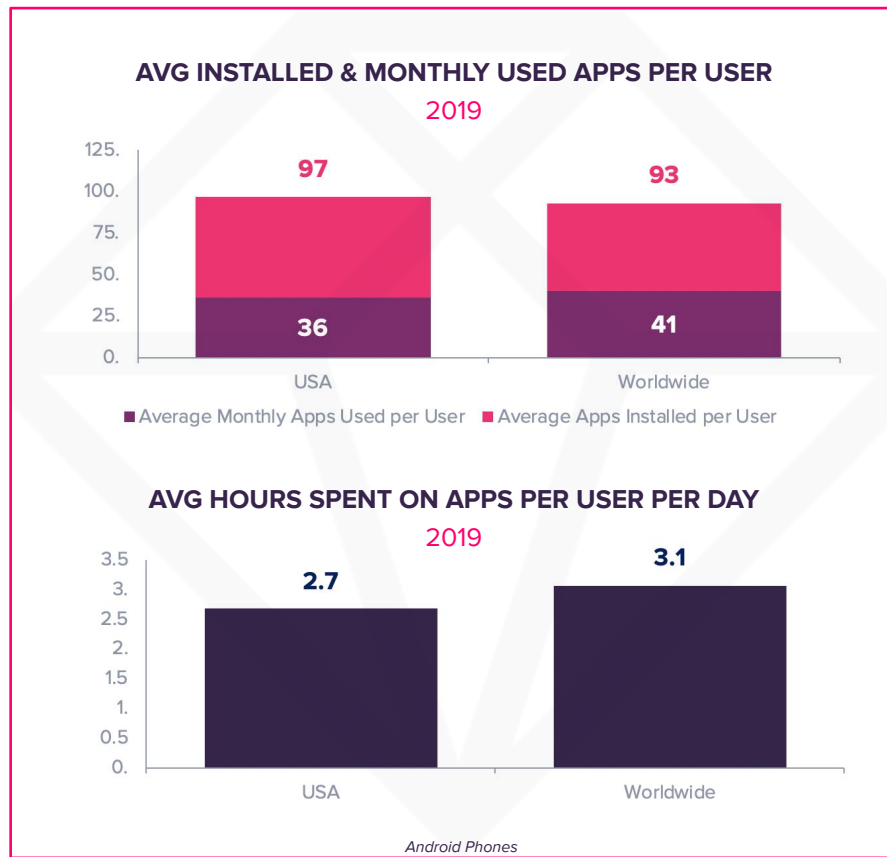




American users have more apps installed, but tend to use fewer apps compared to worldwide trends

American users have more apps installed on their smartphones than the Worldwide average. But of the countries analyzed, the number of apps used each month is one of the lowest - second only to UK.

American users spend more time on apps (2.7h a day) than most of the other mature economies analyzed, second only to Ireland (2.9h a day). Nevertheless, this is below worldwide average which is led by mobile-first emerging economies.





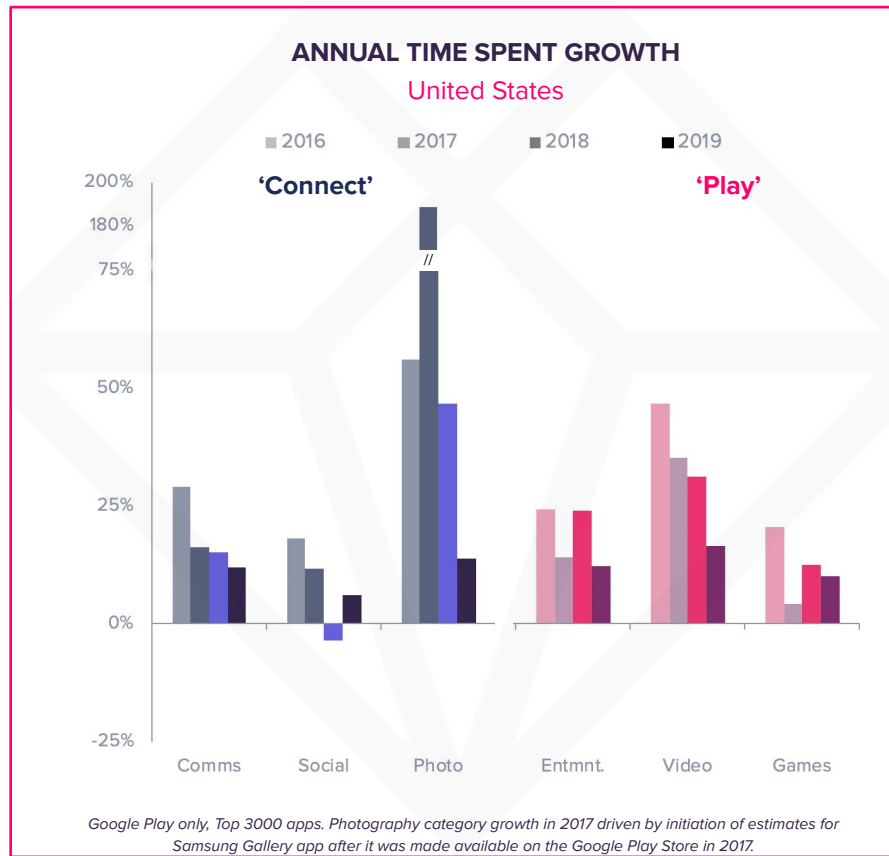
American users are spending significantly more time across multiple categories

American trends for time spent growth over time (across categories) are similar to Worldwide trends, suggesting users are continually seeking new apps for different use cases.

- Top categories of growth are similarly Photography and Video Players.

Key differences compared to Worldwide trends:

- Most categories analyzed are growing slower.



Western Europe: France & Germany



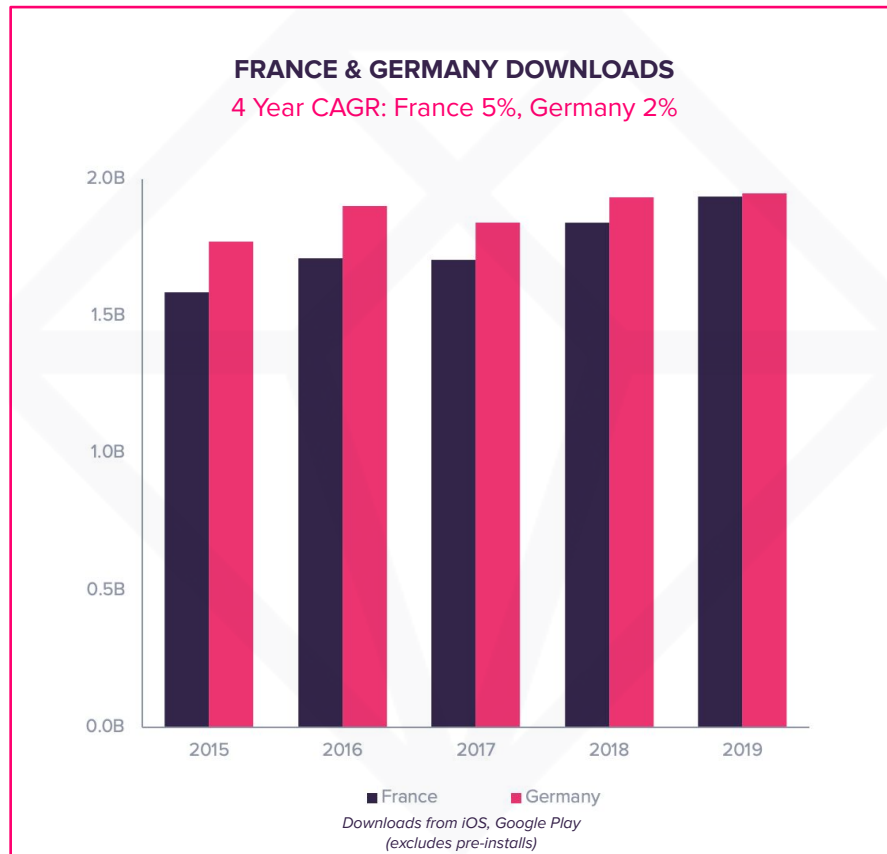
France and Germany have large consistent downloads volume, even though growth has slowed

While downloads growth rates are lower, France and Germany both have sizable downloads volume approaching almost 2B annual downloads in 2019. Ranking #14 worldwide (Germany) and #15 (France) by downloads respectively.

Trends in these 2 countries are similar to trends seen in other mature economies like the United States and United Kingdom which continue to see consistent numbers of new downloads annually, but growth has slowed.

Top categories for downloads in both France and Germany include Games, Entertainment, Social, Shopping, Photography, Video Players.

- Of these categories, Shopping grew the fastest in both countries in 2019 (France 10%, Germany 11%).





Engagement grew at above average rates in France, and Germany saw robust growth on large base

While engagement growth rate in Germany is lower than worldwide average, Germany has a large total time spent and total sessions base.

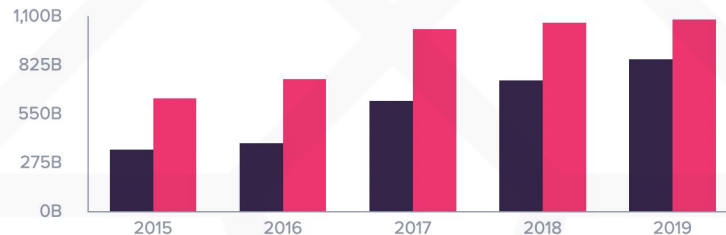
Even though it has a sizable total volume of sessions and time spent, France's engagement growth was higher than worldwide average.

- App engagement has deepened in France over the past years and it has closed the gap to Germany.

Time spent in-app is driven by activities in multiple categories, ranging from users checking their emails to browsing news articles or checking their finances.

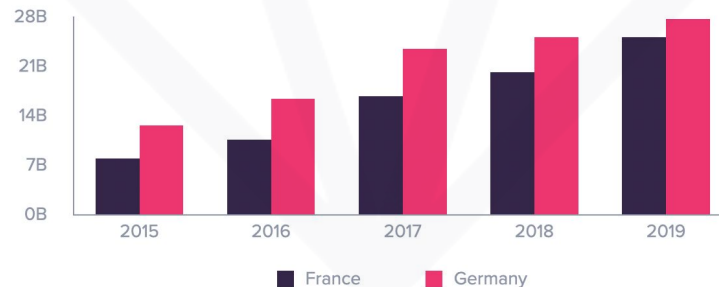
FRANCE & GERMANY TOTAL SESSIONS

4 Year CAGR: France 25%, Germany 14%



FRANCE & GERMANY TOTAL TIME SPENT

4 Year CAGR: France 33%, Germany 22%



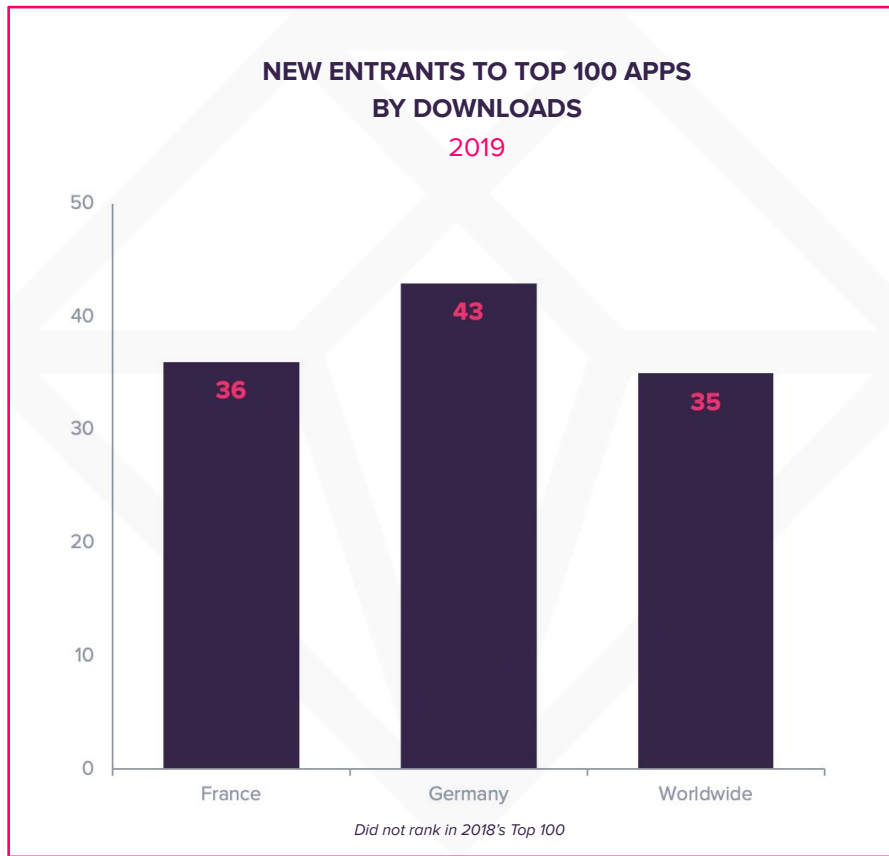


Both German and French app ecosystems more diverse than average with more new entrants into Top 100

German and French app ecosystems continue to evolve:

- Of the countries analyzed, Germany had the second highest number of apps (43) new to the Top 100, tied with Denmark.
- France (36) is higher than worldwide average (35), and were comparable to most European countries analyzed (ranges between 36-39).

As Germany is a leading economy in Western Europe, it is a key target app economy for many app publishers to launch new products, innovate and invest in.



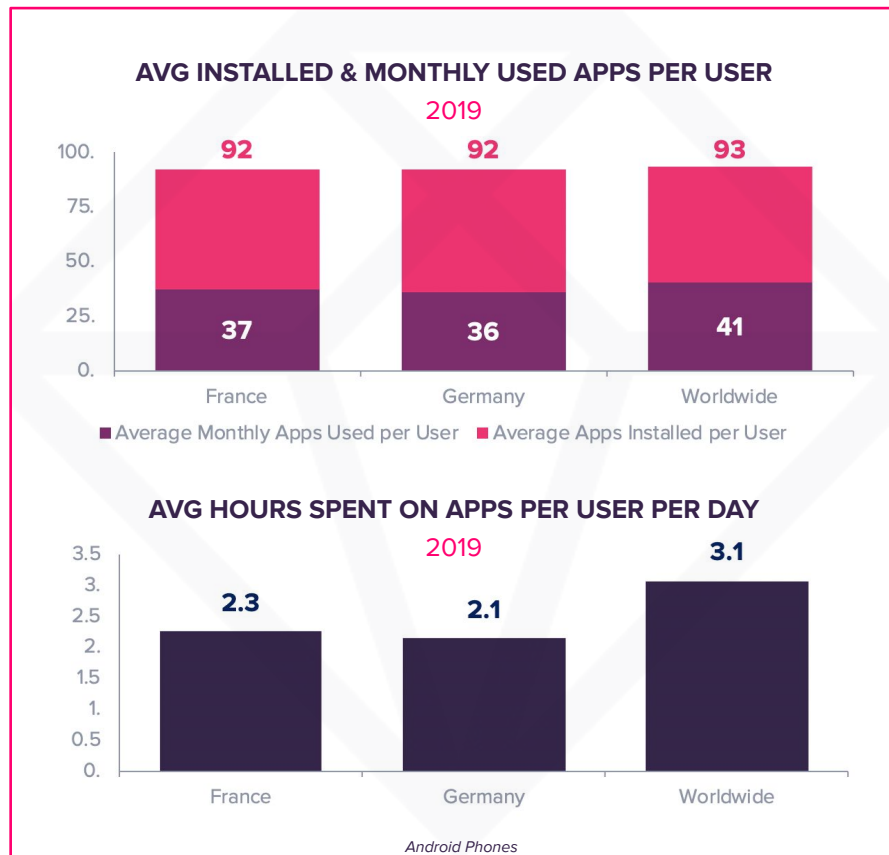


French and German users install and use fewer apps, and tend to spend less time in apps

French and German users tend to have fewer apps installed and used on their phones than Worldwide average.

Of the countries analyzed, French and German users spend the least amount of times in app each day. Germany is the lowest at 2.1h a day, while France is comparable to Denmark and United Kingdom (2.3h a day).

One potential reason is some users might still prefer to conduct certain online activities on desktops/laptops instead of mobile.





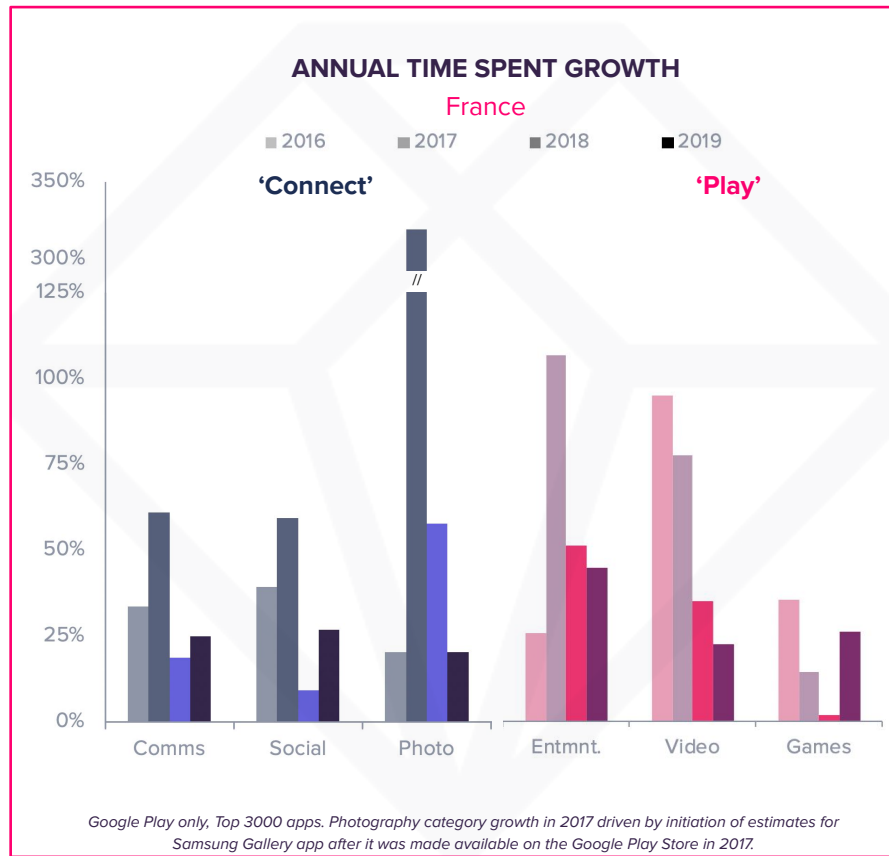
French users are spending more time across multiple categories, growing faster than worldwide average

French trends for time spent growth over time (across categories) are similar to Worldwide trends, suggesting users are continually seeking new apps for different use cases.

- Top categories of growth are similarly Photography and Entertainment / Video Players.

Key differences compared to Worldwide trends:

- Across these categories analyzed, all categories are growing faster.





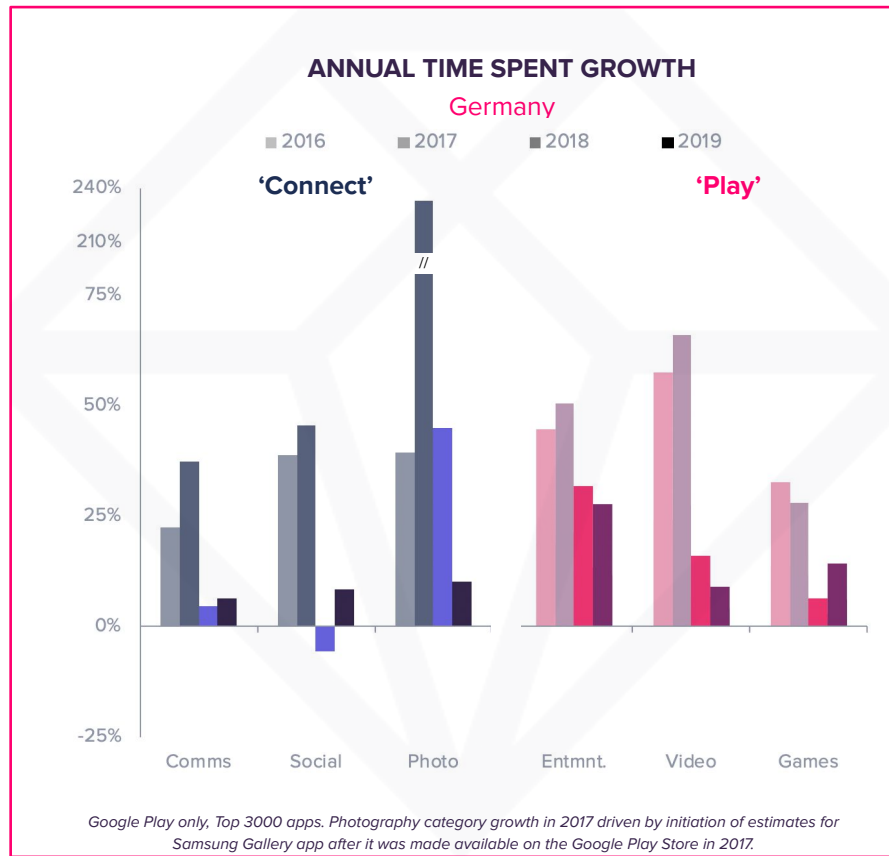
German users are spending significantly more time across multiple categories

German trends for time spent growth over time (across categories) are similar to Worldwide trends, suggesting users are continually seeking new apps for different use cases.

- Top categories of growth are similarly Photography and Entertainment / Video Players.

Key differences compared to Worldwide trends:

- Photography is growing faster
- Entertainment, Video Players and Social categories are growing slower.



Southern Europe: Italy & Spain



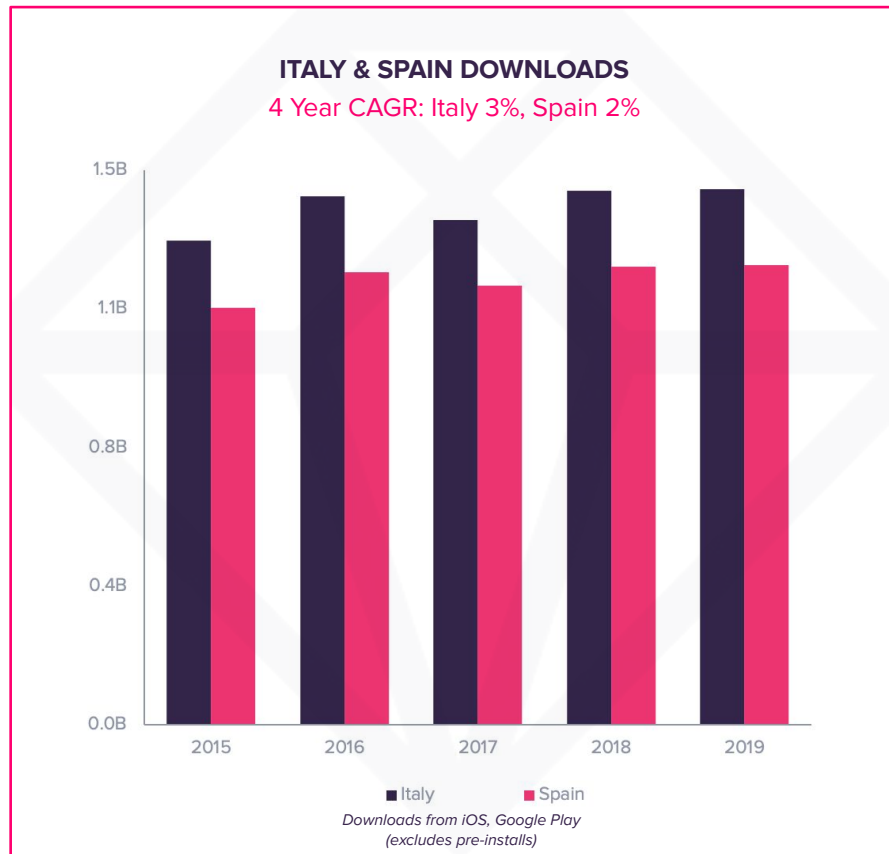
Italy and Spain have large consistent downloads volume, even though growth has slowed

While downloads growth rates are lower, Italy and Spain both have sizable downloads volume of >1B each year.

Trends in these 2 countries are similar to trends seen in other mature economies like the United States and United Kingdom that continue to see consistent numbers of new downloads annually, but growth has slowed.

Top categories for downloads in both Italy and Spain include Games, Photography, Video Players, Social, and Entertainment.

- Of these categories, Games grew the fastest in both countries in 2019 (Italy 4%, Spain 6%).





Italy and Spain had robust engagement growth on a large base of total sessions and time spent

Despite a relatively higher base, Italy's total sessions growth is 2 percentage points higher than the worldwide average, and time spent growth is only 1 percentage point lower.

- While Italy is a relatively mature digital economy, app engagement continues to deepen.

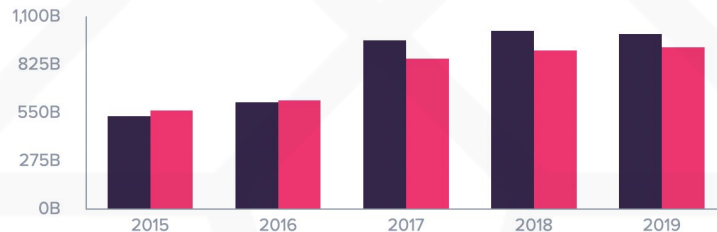
On the other hand, while engagement growth rate in Spain is lower than worldwide average, Spain has a large total time spent and total sessions base.

- This indicates that Spain is a relatively mature and stable digital economy.

Time spent in-app is driven by activities in multiple categories, ranging from users checking their emails to browsing news articles or checking their finances.

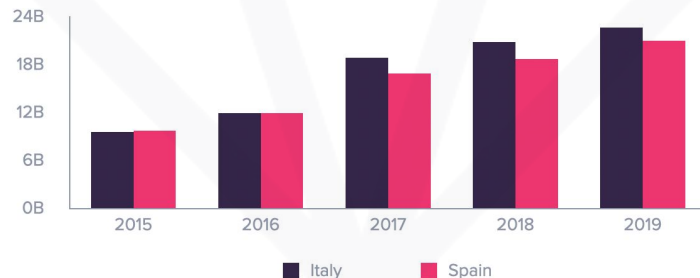
ITALY & SPAIN TOTAL SESSIONS

4 Year CAGR: Italy 17%, Spain 13%



ITALY & SPAIN TOTAL TIME SPENT

4 Year CAGR: Italy 24%, Spain 21%



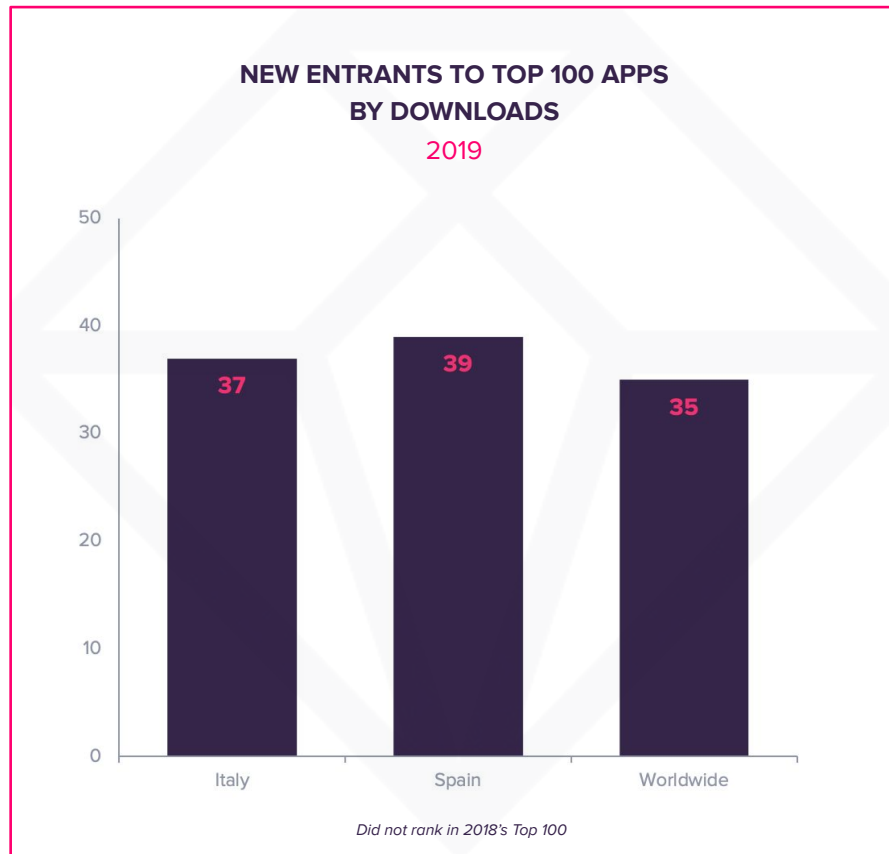


Both Italian and Spanish app ecosystems are more diverse than average with more new entrants into Top 100

Italian and Spanish app ecosystems continue to evolve:

- Number of apps new to the Top 100 in Italy (37) and Spain (39) were both higher than worldwide average, and were comparable to most European countries analyzed (ranges between 36-39).

This indicates that Italy and Spain, together with the larger Western Europe region, are key target app economies for app publishers.

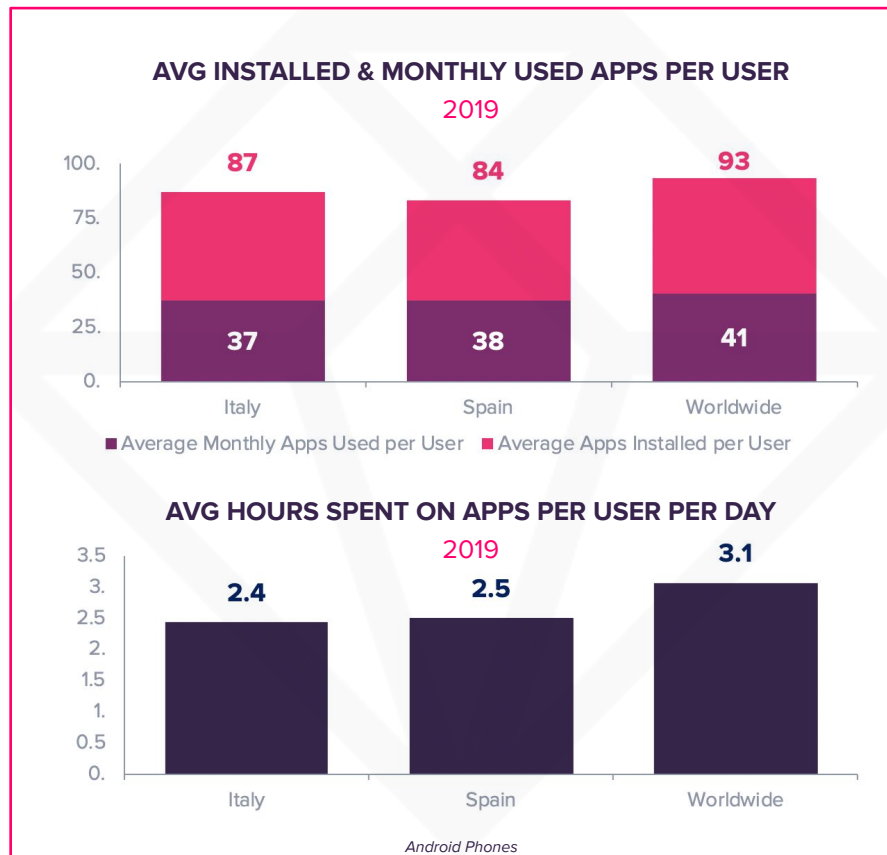




Italian and Spanish users have fewer apps installed on their smartphones, but they use many of these apps

Italian and Spanish users have relatively fewer apps installed on their phones. But they do use more apps than France, Germany, USA, and UK users.

Italian and Spanish users spend a comparable amount of time in apps each day with users in Finland, Sweden, and Portugal (2.4-2.5 hours a day).





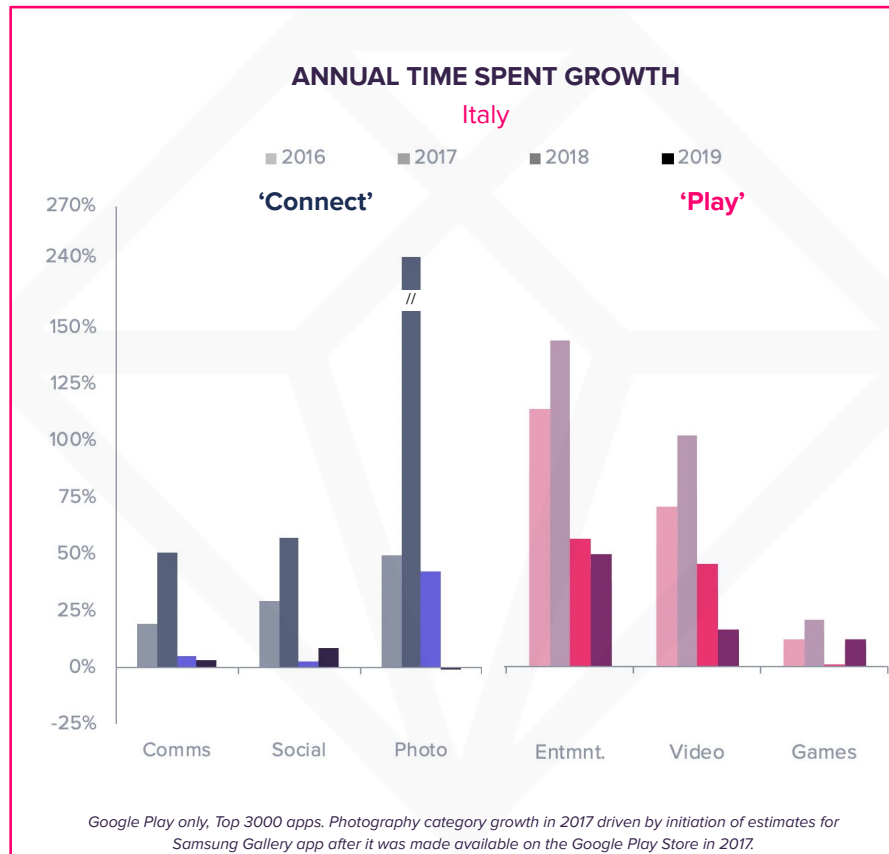
Italian users are spending significantly more time across multiple categories

Italian trends for time spent growth over time (across categories) are similar to Worldwide trends, suggesting users are continually seeking new apps for different use cases.

- The top growth category in Italy is Entertainment.

Key differences compared to Worldwide trends:

- Both Entertainment and Video Players categories growing faster.
- Photography is also growing faster, but had negative growth in 2019.
- Gaming category growing slower than average.





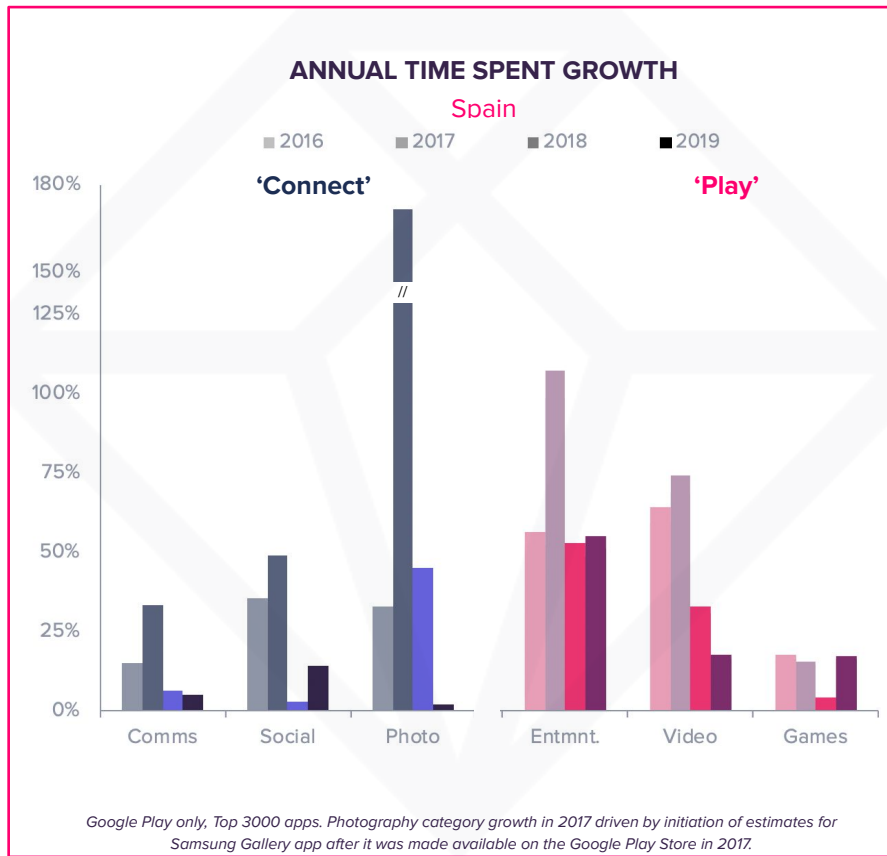
Spanish users are spending significantly more time across multiple categories

Spanish trends for time spent growth over time (across categories) are similar to Worldwide trends, suggesting users are continually seeking new apps for different use cases.

- The top growth category in Spain is Entertainment.

Key differences compared to Worldwide trends:

- Entertainment category growing faster.
- Gaming, Video Players, and Communications categories are growing slower.



Northern Europe: Ireland & United Kingdom



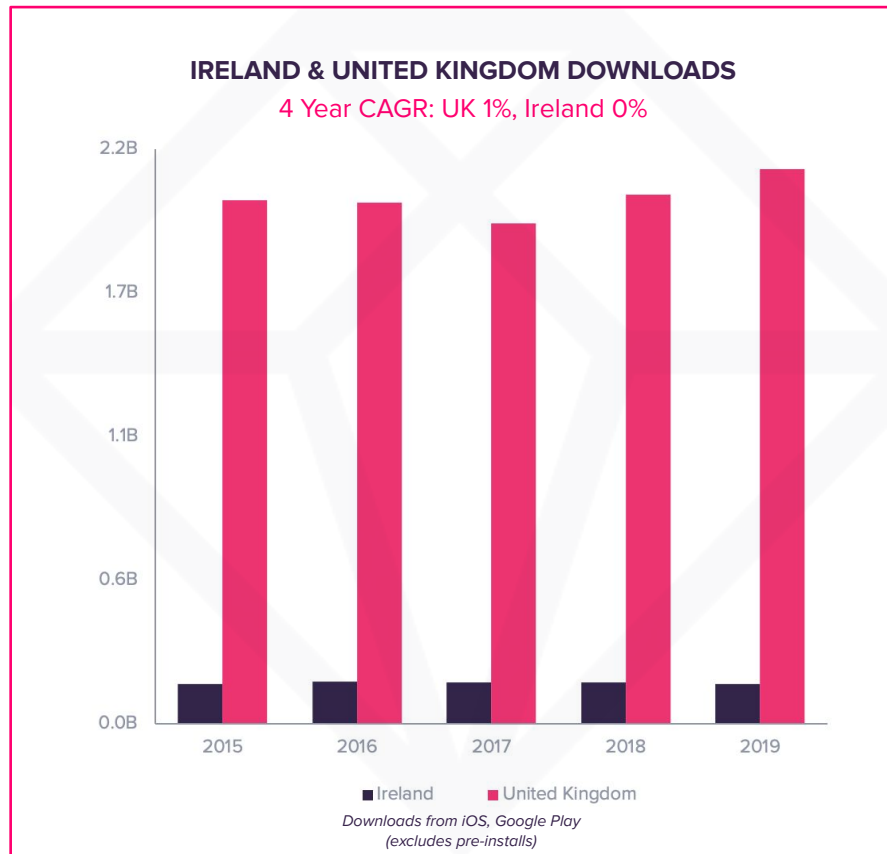
United Kingdom and Ireland together had a large number of downloads, even as growth slowed

While the United Kingdom ranks high in 2019 downloads (#11 worldwide) with >2B downloads, its 2019 growth rate was 1%.

In Ireland, downloads growth has remained flat, despite a slight increase between 2016-2018.

These are similar to trends seen in other mature economies like the United States and Germany that continue to see consistent numbers of new downloads annually, but growth has slowed.

Top categories for downloads in UK include Games, Entertainment, Photography, Video Players, Travel. Of these categories, Travel grew the fastest at 11% in 2019.





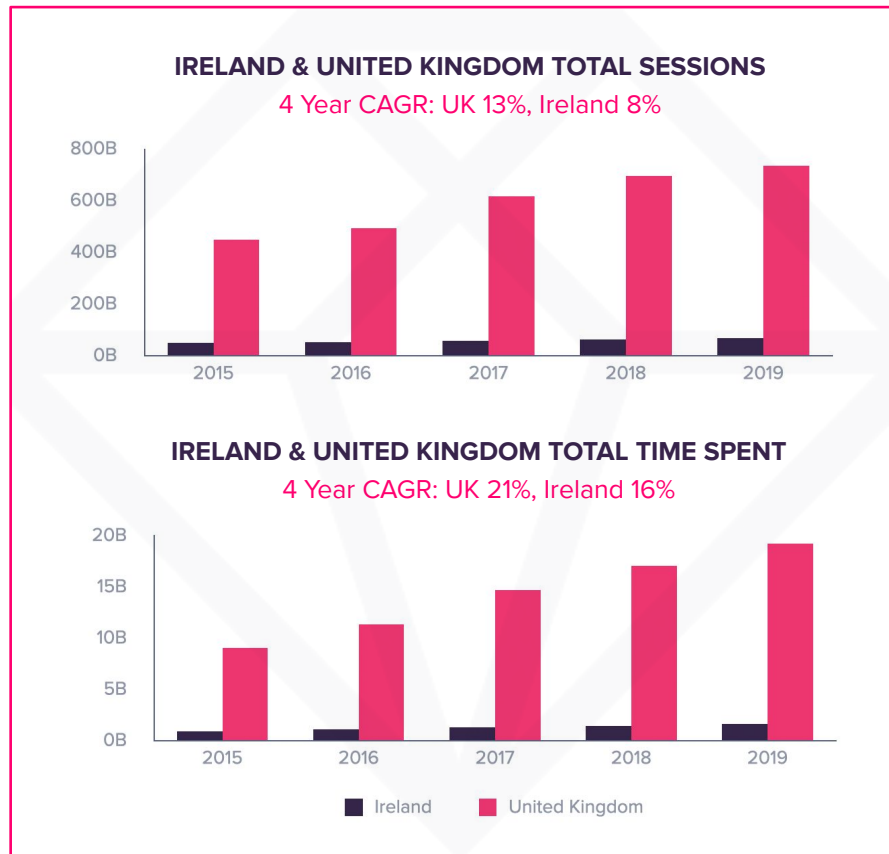
United Kingdom had robust engagement growth on a large base of total sessions and time spent

While engagement growth rate is lower than worldwide average, UK already has a large total time spent and total sessions base.

Irish users spend more time on apps each day than the other mature economies analyzed (2.9 hours vs. range between 2.1 - 2.7).

Mature digital economies such as UK and Ireland are further advanced along the [app maturity cycle](#). Many of their users are already comfortable and familiar with similar digital features through desktop and, therefore, have high app engagement.

Time spent in-app is driven by activities in multiple categories, ranging from users checking their emails to browsing news articles or checking their finances.



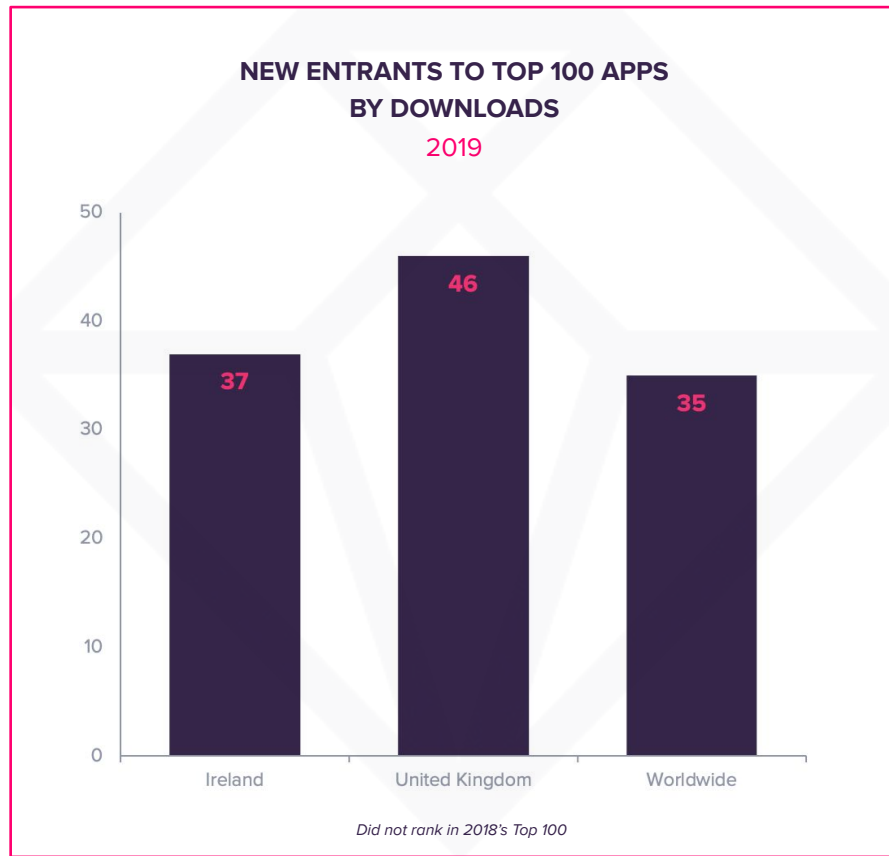


Both UK and Irish app ecosystems have above average number of new entrants into the Top 100

UK and Irish app ecosystems continue to evolve:

- Of the countries analyzed, UK had the highest number of apps (46) new to the Top 100.
- Ireland (37) is higher than worldwide average (35), and is comparable to most European countries analyzed (ranges between 36-39).

Many app publishers tend to target the UK when innovating and launching new products since it is the largest app economy in Western Europe.





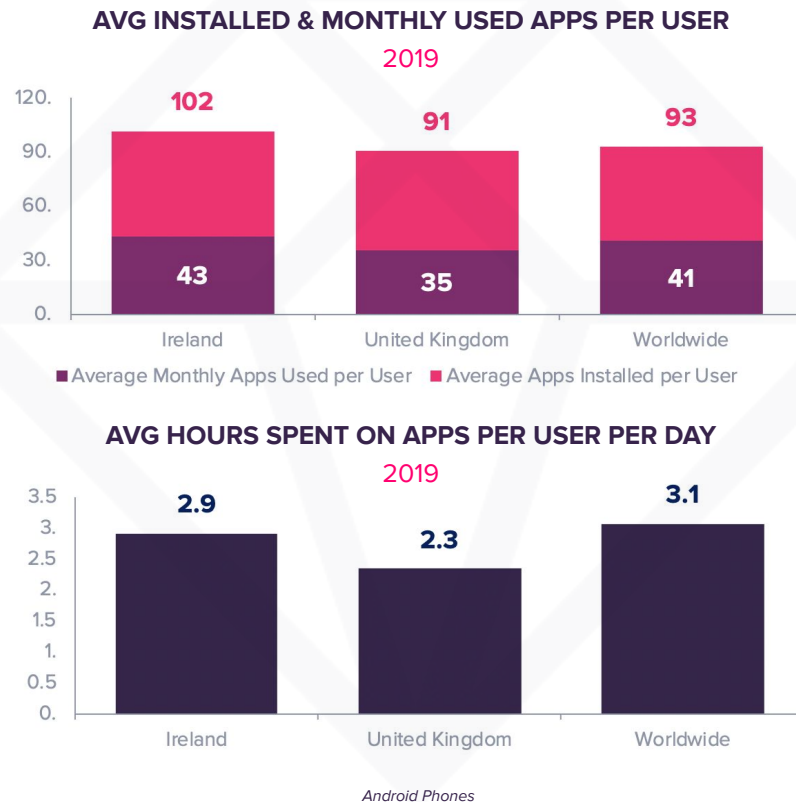
Irish users install and use more apps on average, while UK users tend to have fewer

Irish users have one of the highest number of apps installed and used on their phones, behind the Nordic countries.

Irish users also spend more time on apps than the other mature economies analyzed.

UK users have relatively fewer apps installed and used, and are also among those who spend the shortest time in apps.

One potential reason is some UK users may still prefer to conduct certain online activities on desktops/laptops instead of mobile.





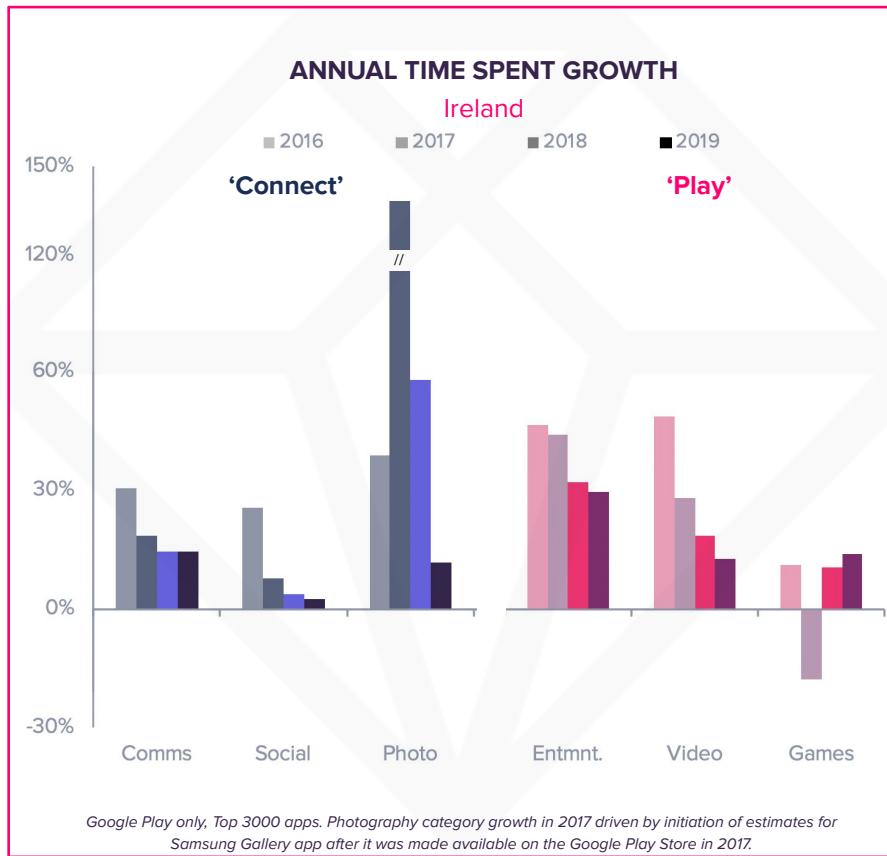
Irish users are spending more time across multiple categories

Irish trends for time spent growth over time (across categories) are similar to Worldwide trends, suggesting users are continually seeking new apps for different use cases.

- Top categories of growth are similarly Photography, Entertainment, and Video Players.

Key differences compared to Worldwide trends:

- Most categories analyzed are growing slower, including Games, Social, Entertainment and Video Players.





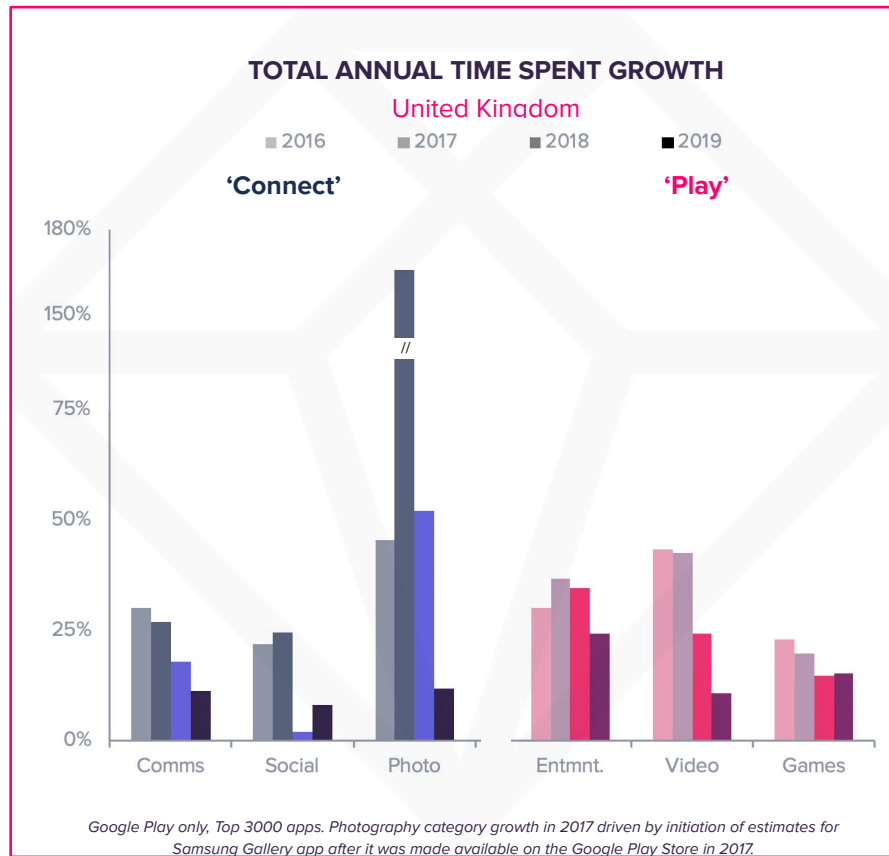
UK users are spending significantly more time across multiple categories

British trends for time spent growth over time (across categories) are similar to Worldwide trends, suggesting users are continually seeking new apps for different use cases.

- Top categories of growth are similarly Photography, Entertainment, and Video Players.

Key differences compared to Worldwide trends:

- Photography and Communications growing faster.
- Entertainment, Video Players and Social categories growing slower.



Northern Europe: Denmark, Finland, Sweden

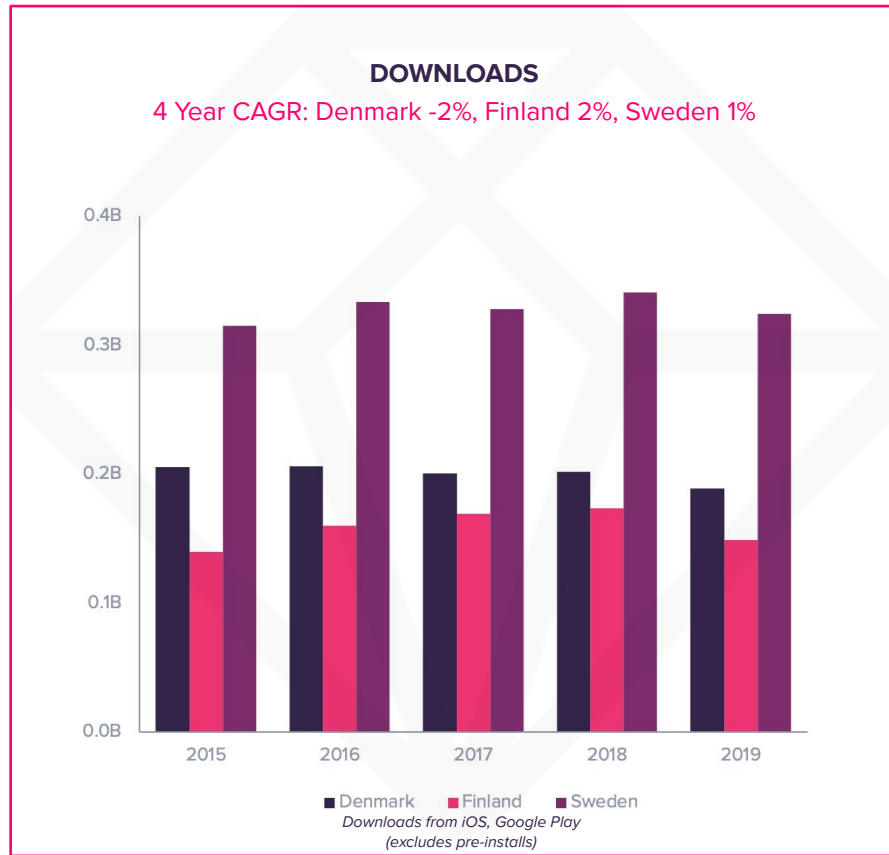


While downloads growth is slowing in Denmark, Finland & Sweden, they have the highest number of apps installed

Even though downloads growth is slowing, Denmark, Finland, and Sweden have the highest number of apps installed per phone and are among the highest for average monthly apps used.

Top categories for downloads in Denmark, Finland, and Sweden are similar, and include Games, Travel, and Entertainment

- Of these categories, Travel grew the fastest in 2019 (Denmark 6%, Sweden 4%)
- In Finland, Travel shrank 6% but Games and Entertainment shrank at a greater rate.





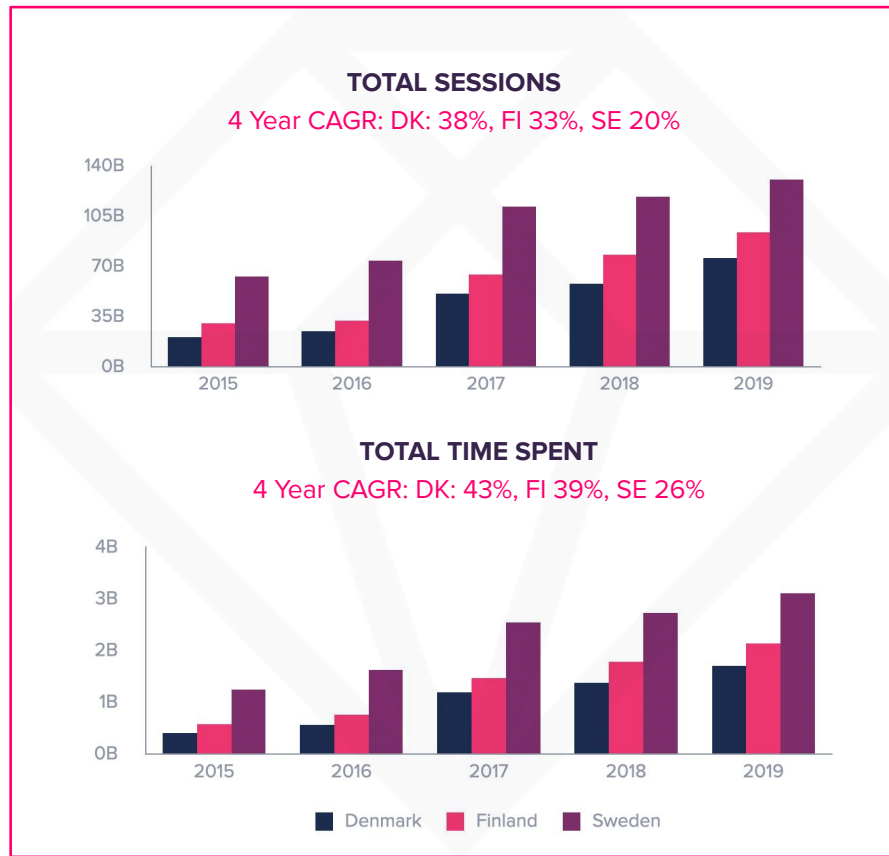
Strong engagement growth rate in Denmark, Finland, and Sweden higher than worldwide average

Engagement growth rates in these countries are higher in part because they have relatively smaller volume of total sessions and total time spent.

- As downloads growth slows down, app engagement is deepening in these countries as the country progresses further along the [app maturity cycle](#).

These are mature app economies, where many users are already comfortable and familiar with similar digital features through desktop and, therefore, have high app engagement.

Time spent in-app is driven by activities in multiple categories, ranging from users checking their emails to browsing news articles or checking their finances.

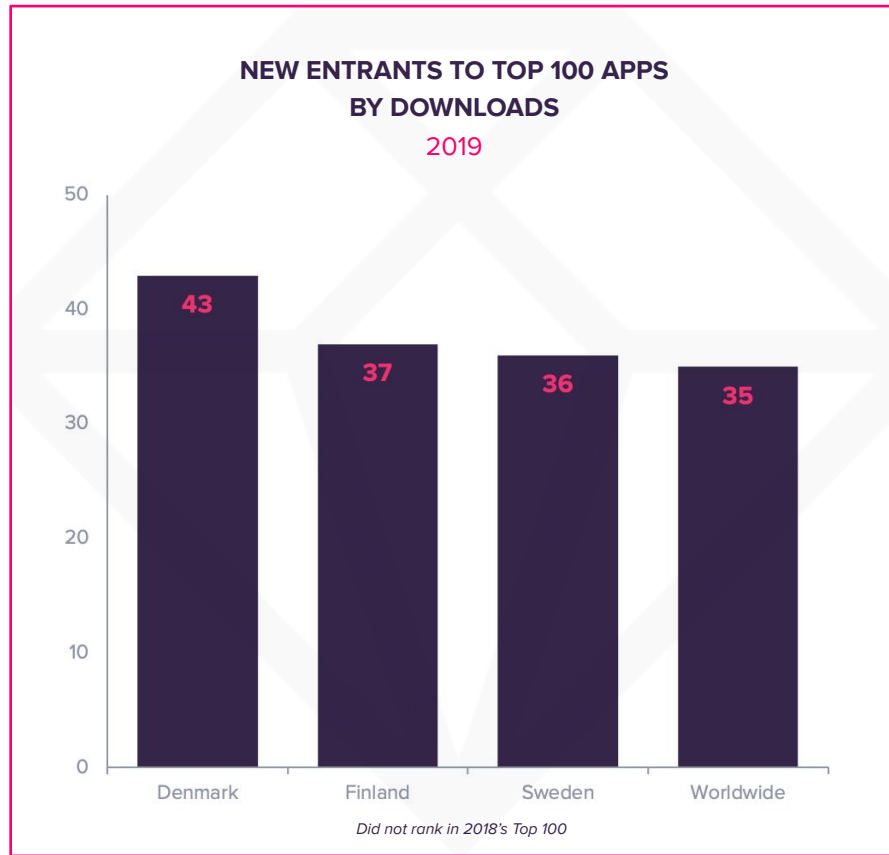




Danish, Finnish, and Swedish app ecosystems more diverse than average with more new entrants into Top 100

Danish, Finnish, and Swedish app ecosystems continue to evolve:

- Of the countries analyzed, Denmark had the second highest number of apps (43) new to the Top 100, tied with Germany.
- Finland (37) and Sweden (36) are higher than worldwide average (35), and were comparable to most European countries analyzed (ranges between 36-39).





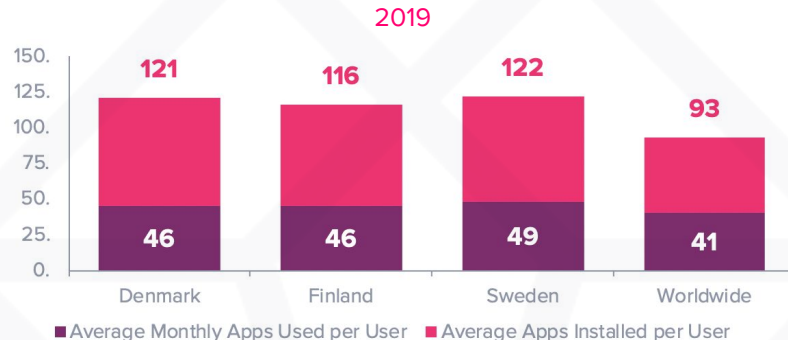
Danish, Finnish & Swedish users have more apps installed and use more apps vs. worldwide trends

Of the countries analyzed, Danish, Finnish, and Swedish users have the most number of apps installed and used on their smartphones. It suggests that users in these Nordic countries are more willing to use different apps for various services & needs and to try out new apps.

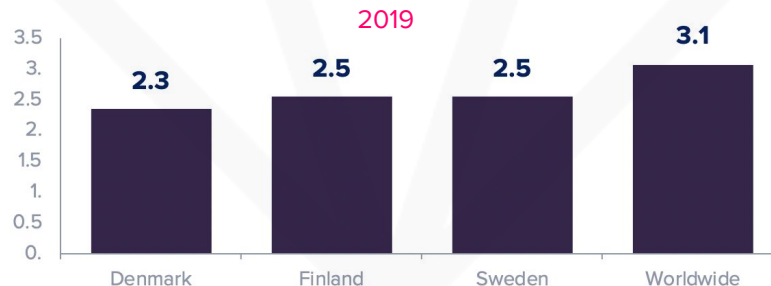
Finnish and Swedish users spend a comparable amount of time in apps each day to users in Spain and Portugal (2.5h a day).

While Danish users spend less time (2.3h a day), which is comparable to UK and France.

AVG INSTALLED & MONTHLY USED APPS PER USER



AVG HOURS SPENT ON APPS PER USER PER DAY



Android Phones



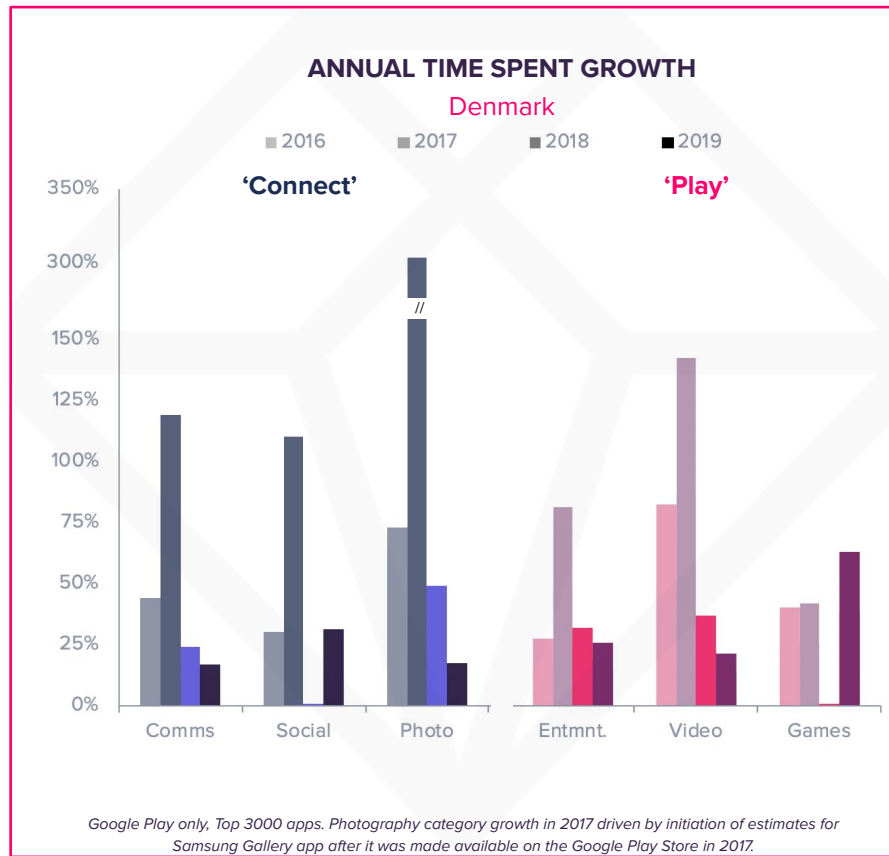
Danish users are spending significantly more time across multiple categories

Danish trends for time spent growth over time (across categories) are similar to Worldwide trends, suggesting users are continually seeking new apps for different use cases.

- Top categories of growth are similarly Photography and Video Players.

Key differences compared to Worldwide trends:

- Across the categories analyzed, all categories are growing faster except for Entertainment, which is growing slower.





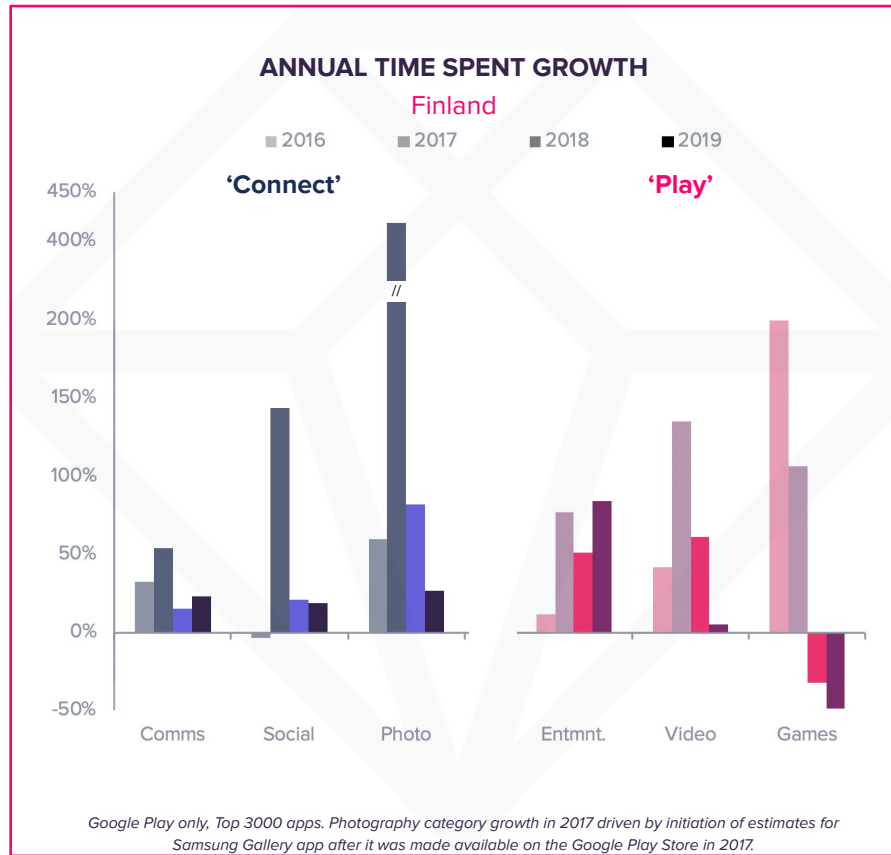
Finnish users are spending significantly more time across multiple categories

Finnish trends for time spent growth over time (across categories) are similar to Worldwide trends, suggesting users are continually seeking new apps for different use cases.

- Top categories of growth are similarly Photography and Entertainment / Video Players.

Key differences compared to Worldwide trends:

- Across these categories analyzed, all categories are growing faster.
- Gaming growth was negative in 2018-2019, after a very strong period of growth in 2016-2017.





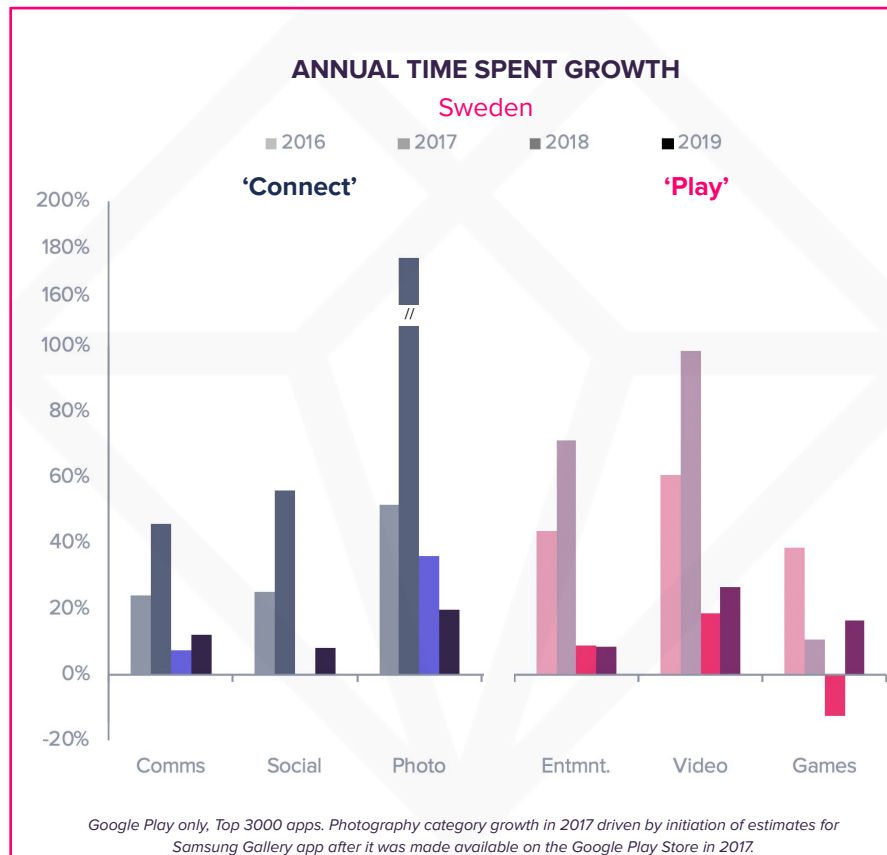
Swedish users are spending significantly more time across multiple categories

Swedish trends for time spent growth over time (across categories) are similar to Worldwide trends, suggesting users are continually seeking new apps for different use cases.

- Top categories of growth are similarly Photography, Entertainment, and Video Players.

Key differences compared to Worldwide trends:

- Photography, Social, and Communications grew faster.
- Entertainment, Video Players, and Gaming categories grew slower.



Country Breakout: India



India's downloads growth rate is higher than worldwide avg.

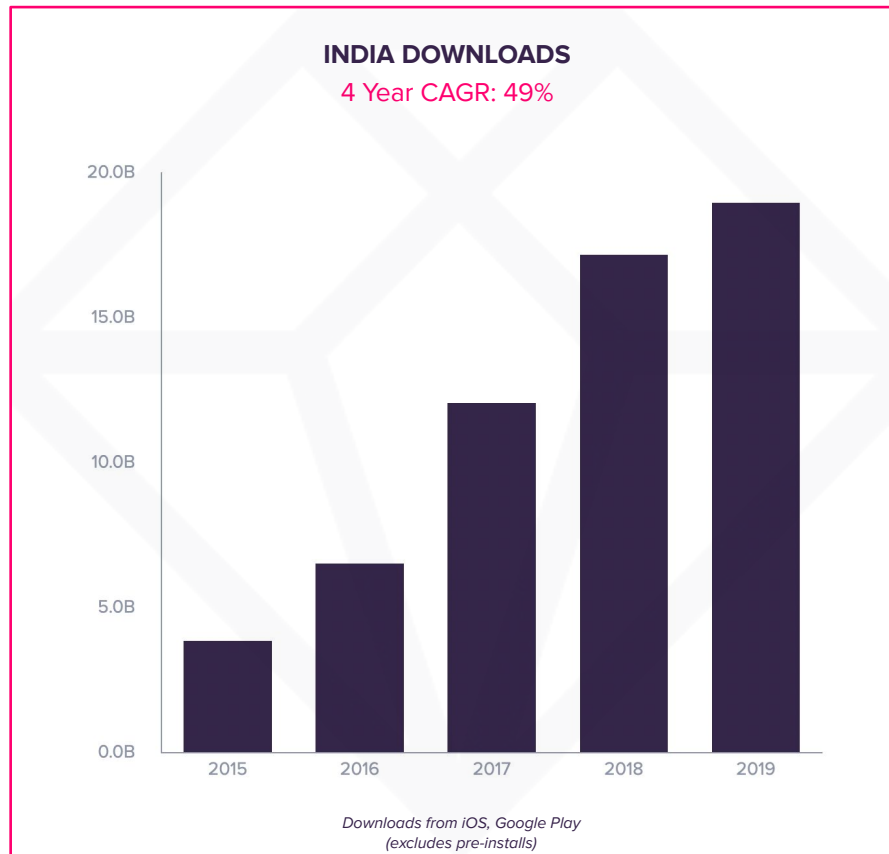
India's rapid growth has catapulted it into 2nd place in terms of downloads since 2017 (after China). Excluding 3rd party Android stores, India is the top country fuelling downloads in the app economy.

Top categories for downloads in India include Games, Social, Photography, Video Players, Entertainment, and Shopping.

- Of these categories, Shopping is growing the fastest at 34% in 2019.

India is a key mobile-first emerging economy. In addition to having the world's second largest population, scale and growth in India's app downloads have also been driven by:

- Mobile adoption, which has also been accelerated by the subsidization of 4G data
- A wave of affordable smartphones in recent years.



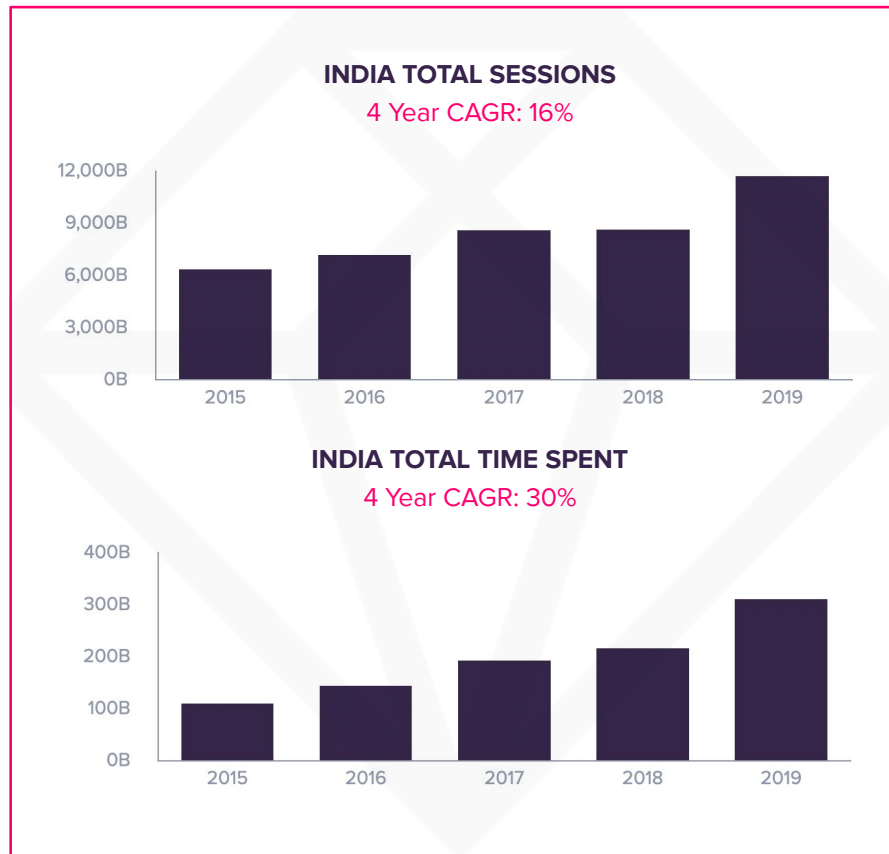


Engagement growth rate in India higher than worldwide average

As a mobile-first emerging economy, users in India spend the most time in mobile each day as it is their primary screen.

- Users are more likely to make digital interactions over mobile for their various needs such as for Finance, Shopping, and Entertainment.

India's downloads growth is much higher than engagement growth, indicating that there is still plenty of room for India's app economy to grow and mature.

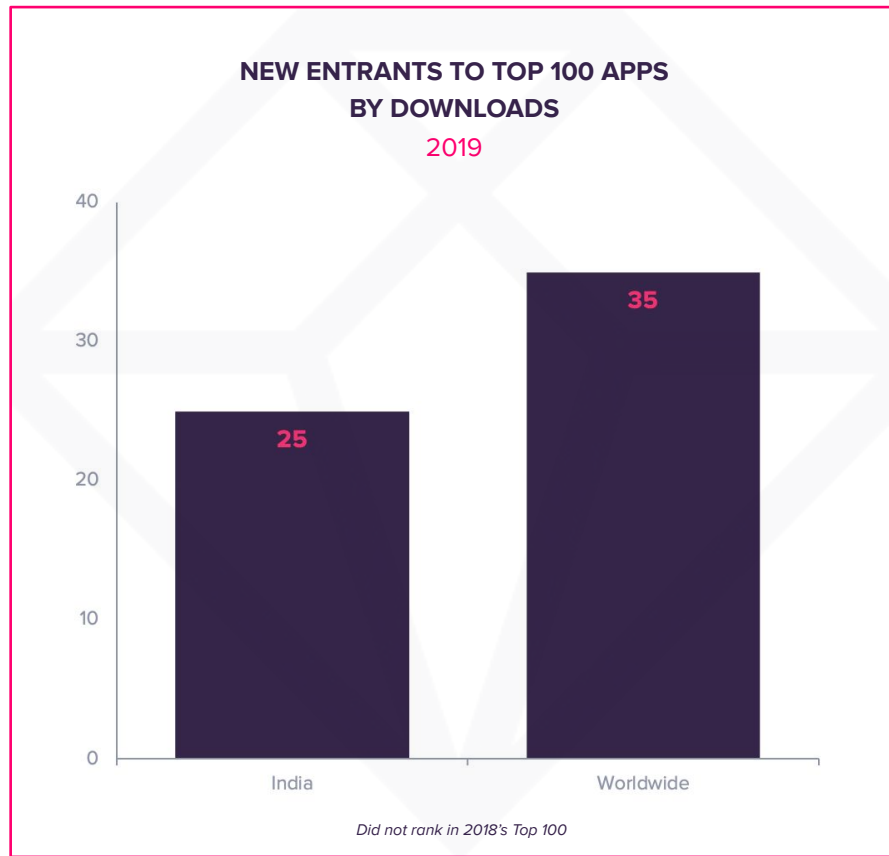




There were fewer new entrants into the Top 100 in India in 2019 compared to worldwide trends

India has a lower number of apps new to the Top 100 with just 25, compared to the Worldwide average of 35.

As more people get mobile access, the number of new entrants going forward will likely increase with more app publishers starting to look at India as an important app economy.



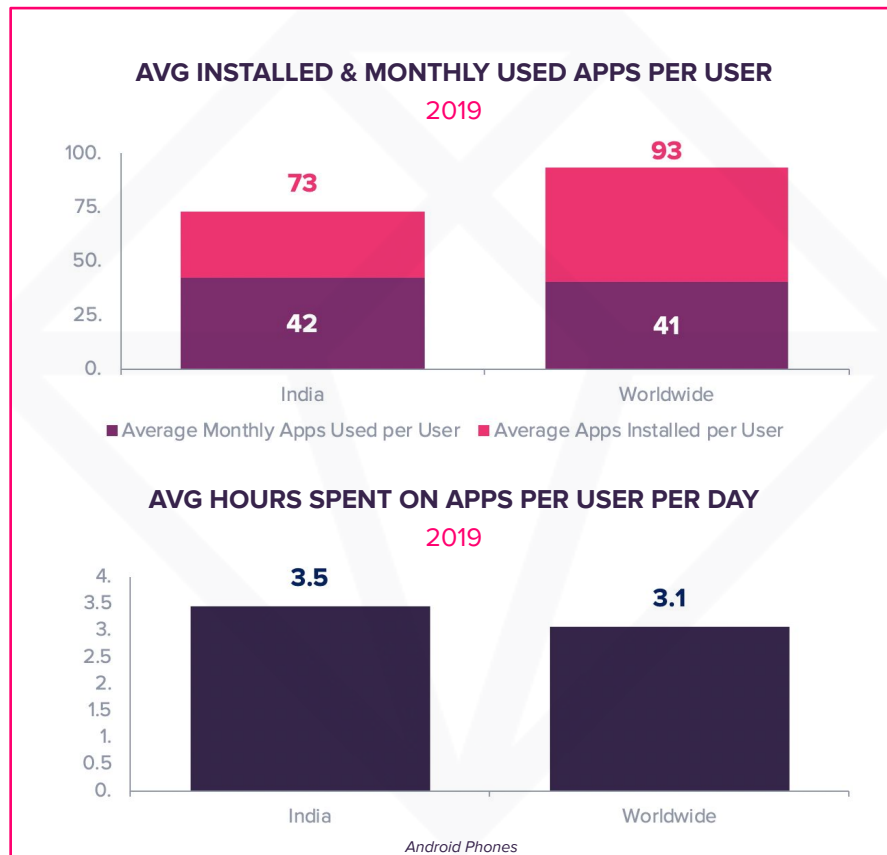


Indian users have fewer number of apps installed on their smartphones, but they use many of these apps

Many smartphones in India are priced affordably, offering slower processing speeds and less storage space.

- As a result, the average Indian user has fewer apps installed on their phones.

Indian users tend to rely on mobile as their primary screen for transactions; they spent the most time in apps each day compared to other countries.





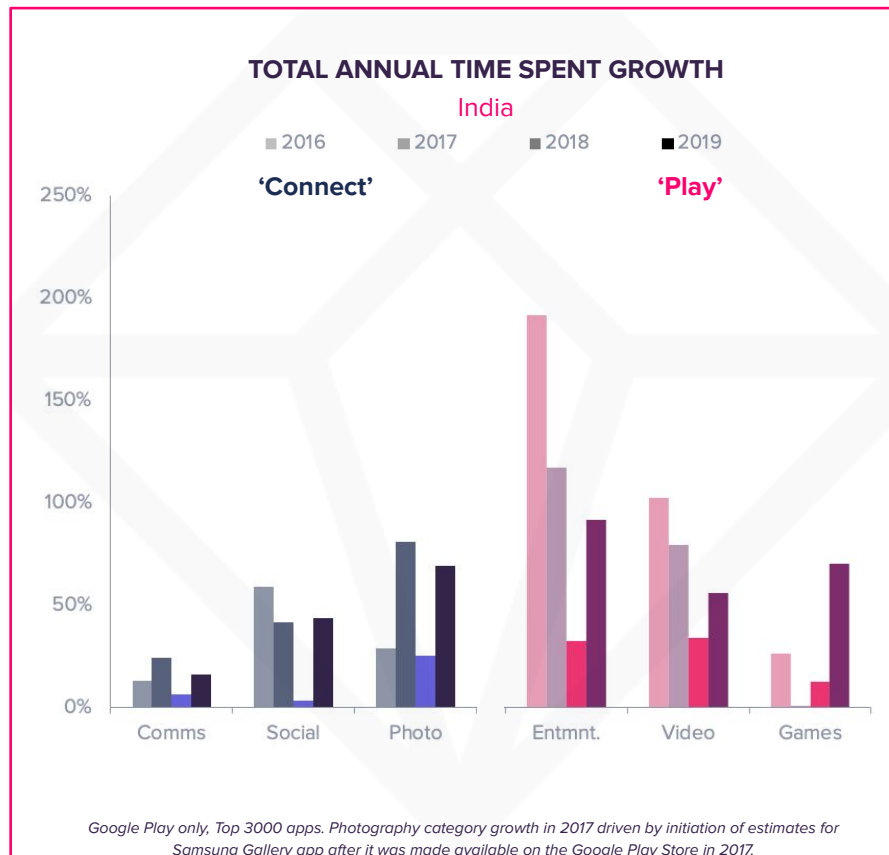
Indian users are spending significantly more time across multiple categories

Indian trends for time spent growth over time (across categories) are similar to Worldwide trends, suggesting users are continually seeking new apps for different use cases.

- Top categories of growth are Entertainment and Video Players.

Key differences compared to Worldwide trends:

- Entertainment, Video Players, Social, and Gaming categories are growing faster.
- Photography and Communications are growing slower.



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Cloud Solution With Global Reach

We have teams in 12 offices to deliver the global service and support customers need.



Thank You































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Appendix.



Top apps by downloads | Entertainment

USA 2019































 Akinator the Genie	 CW Network	 FOX NOW	 NBC	 STARZ	 Xbox
 Amazon Prime Video	 DIRECTV	 Google Play Games	 Netflix	 Tubi TV	 XFINITY TV
 Bitmoji	 Disney Channel	 HBO NOW	 PlayStation App	 TWC TV	 Yarn
 CBS	 Disney+	 Hulu	 Pluto.tv	 Twitch	 YouTube Kids
 Celebrity Voice Changer	 Eventbrite	 Mixer – Interactive Live Streaming	 Roku	 Vudu	 YouTube TV

Based on apps available for download on Apple App Store and/or Google Play Store, sorted alphabetically.
Downloads do not include pre-installs, app updates, or when the same account re-downloads an app (for example on another device).



Top apps by downloads | Video Players & Editors

USA 2019































 1 Second Everyday	 Funimate	 Imgur: Awesome Images & GIFs	 Lomotif	 Screen Recorder & Video Recorder	 VivaVideo
 Arlo Legacy	 GIF Keyboard by Tenor	 Intro Maker	 Magisto	 Triller	 VLC Media Player
 Cartoon Network	 GIPHY for Messenger	 KineMaster	 PowerDirector	 Video Downloader by InShot Inc	 YouCut
 Cast to TV - Chromecast, Roku, stream phone to TV	 Go Pro	 Likee	 Quik	 Video EditorCrop VideoEdit VideosMusic Effects	 YouTube
 Dubsmash	 Google Play Movies and TV	 Lime Player	 Roku Remote Control: RoByte	 Videoshop	 YouTube Creator Studio

Based on apps available for download on Apple App Store and/or Google Play Store, sorted alphabetically.
Downloads do not include pre-installs, app updates, or when the same account re-downloads an app (for example on another device).



Top apps by downloads | Social

USA 2019

 Airtime	 Facebook	 Lipsi	 Messenger for Social App	 Snapchat	 TikTok
 Amino: Communities and Chats	 Grindr	 Live.me	 Monkey — make new friends	 Tagged	 Tumblr
 Badoo	 Houseparty	 MeetMe	 POF Online Dating	 Text Me	 Wishbone
 BAND	 IMVU Mobile	 Meetup	 Profoundly: Anonymous Chats	 Textfree	 YOLO: Q&A
 BIGO LIVE	 Instagram	 Messages Text and Video Chat	 Skout	 textPlus	 Yubo

Based on apps available for download on Apple App Store and/or Google Play Store, sorted alphabetically.
Downloads do not include pre-installs, app updates, or when the same account re-downloads an app (for example on another device).



Top apps by downloads | Communications

USA 2019































 Chrome Browser	 Gmail	 Hangouts	 Messenger Kids	 Skype	 Verizon Messages
 Contacts by Google	 Google Duo	 imo	 Microsoft Edge	 Straight Talk My Account	 Viber
 Discord - Chat for Gamers	 Google Messenger	 Kik Messenger	 PlayStation-Messages	 Talkatone	 WeChat
 Facebook Messenger	 Google Voice	 Marco Polo Video Walkie Talkie	 Ring - Always Home	 Telegram	 WhatsApp Messenger
 Firefox Browser	 GroupMe	 Messenger for SMS & Call	 RoboKiller	 TextNow	 Yahoo Mail

Based on apps available for download on Apple App Store and/or Google Play Store, sorted alphabetically.
Downloads do not include pre-installs, app updates, or when the same account re-downloads an app (for example on another device).



Top apps by downloads | News

USA 2019































 ABC News	 Citizen: Safety & Awareness	 JailBase	 Newsroom	 Quora	 The Washington Post
 AOL - News, Mail & Video	 CNN News	 Medium	 Nextdoor	 Reddit	 TopBuzz
 BuzzFeed	 Fox News	 NBC News	 NYTimes	 SmartNews	 Twitter
 CastBox	 Free TV Shows App	 Neighbors by Ring	 Podbean	 The Podcast App	 US Breaking News
 CBS News	 Google News	 News Break	 Podcast Player	 The Wall Street Journal	 Yahoo

Based on apps available for download on Apple App Store and/or Google Play Store, sorted alphabetically.
Downloads do not include pre-installs, app updates, or when the same account re-downloads an app (for example on another device).



Top apps by downloads | Photography

USA 2019







 Adobe Illustrator Draw	 Boomerang from Instagram	 Google Photos	 Layout from Instagram	 Photo Grid - Collage Maker	 Snapseed
 Adobe Lightroom	 Enlight Pixaloop	 Gradient Photo Editor	 Pho.to Lab	 Pic Collage	 Video Editor Music, No Crop, Cut
 Adobe Photoshop Express	 FaceApp	 Huji Cam	 Phonto	 PicsArt Photo Studio	 VSCO
 Adobe Photoshop Mix	 Facetune 2	 InstaSize	 Photo Editor - Fotolr	 Prime Photos from Amazon	 YouCam Makeup
 AirBrush	 Free Prints	 Kiosk Photo Transfer	 Photo Editor+	 Shutterfly mobile	 Z Camera

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Top apps by downloads | Games

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 AMAZE!!!	 Color Bump 3D	 Hole.io	 Matchington Mansion	 ROBLOX	 Tiles Hop: EDM Rush
 aquapark.io	 Crowd City	 Homescapes	 Mr Bullet	 Roller Splat	 Tomb of the Mask
 BitLife	 Draw it	 Jelly Shift	 Paper.io 2	 Run Race 3D	 Traffic Run
 Call of Duty: Mobile	 Fun Race 3D	 Magic Tiles 3	 Polysphere	 Stack Ball	 Words Story
 Clean Road	 Helix Jump	 Mario Kart Tour	 PUBG MOBILE	 Subway Surfers	 Wordscapes

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