

State of Mobile 2022





EXECUTIVE SUMMARY: BRAZIL

2021 Mobile Landscape at a Glance

New App Downloads

10.3B

+30%

2Y Growth

iOS, Google Play

> 19,600 apps downloaded per minute in 2021 App Store Spend

\$1.1B

+63%

2Y Growth

iOS, Google Play

> \$2,100 spent per minute in 2021 Daily Time Spent Per User

5.4 Hrs

+32%

2Y Growth

Android Phones; Weighted Average Among Top 10 Mobile-First Markets

> 1/3 of daily waking hours

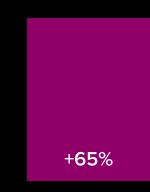
Gaming App Downloads

4.5B

+30%2Y Growth

> 43% of all apps downloaded in 2021 Gaming App Spend

\$571M



2Y Growth

iOS, Google Play, Apps and Games

> 50% of total spend in Brazil in 2021

Contents

- Macro Mobile Trends
- Gaming
- <u>Finance</u>
- Retail
- Video Streaming
- Food & Drink
- Health & Fitness
- <u>Social</u>
- Travel
- Dating
- Other Industries Embracing Mobile
- Top App & Games of 2021

Dive deeper into the insights contained in this report by exploring directly in data.ai Intelligence. Each slide contains links to view the data in expanded markets and trended over time. For Access to data.ai Intelligence, reach out today. This report is interactive. For the best user experience, please view in your web browser.

DATA.AI

A Few of Our Amazing Customers

































































Macro Mobile Trends

Our partnership with data.ai has helped us better navigate the gaming market, providing us insight and assistance in the decision-making process. Our favorite has to be Game IQ's pioneering capability to present a clearer picture of our clientele and allow us to create a tailor-made experience.

Matt Liu
Global Publishing & Marketing Vice General Manager
NetEase Games



Users in Brazil Spend 1/3 of Waking Hours on Mobile

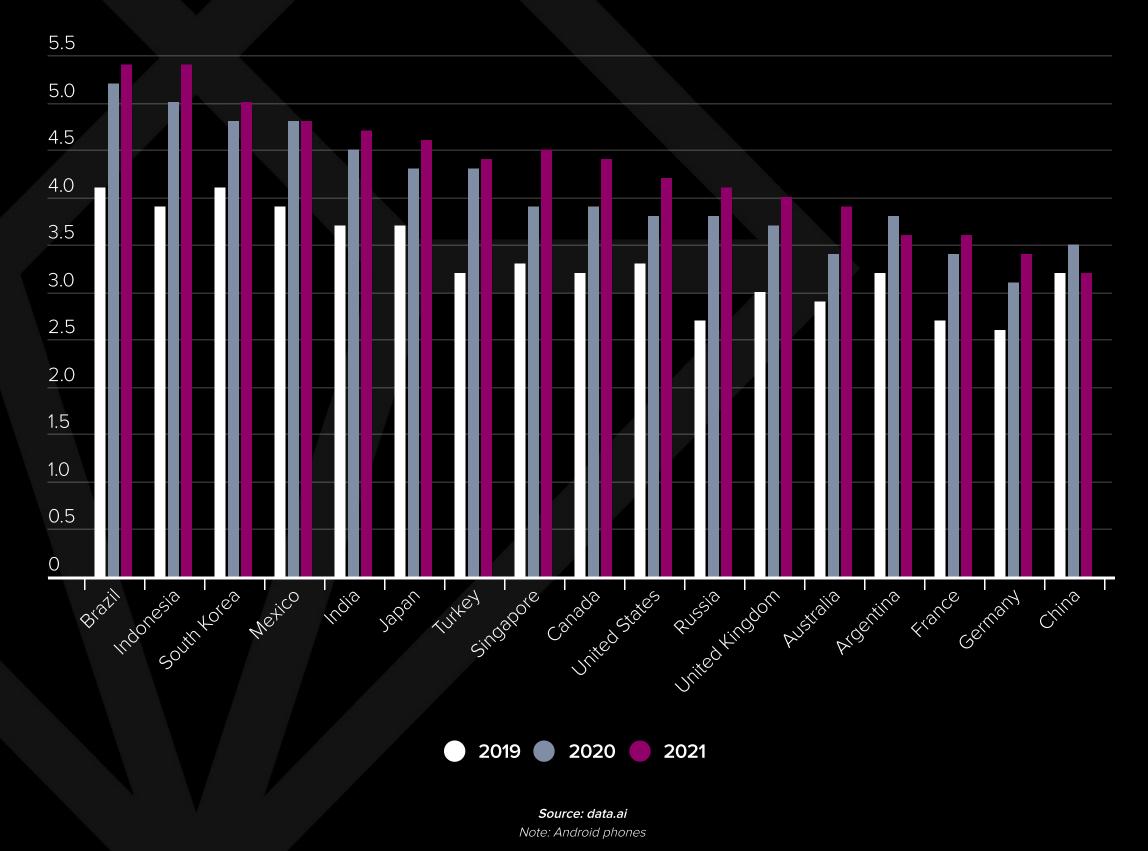
Users in Brazil, Indonesia and South Korea surpassed 5 hours per day in mobile apps in 2021.

In 2021, users spent more time on mobile in Brazil than in all other countries, ranking as the #1 region. Average time spent surpassed 5.4 hours per day — up 32% from 2019.

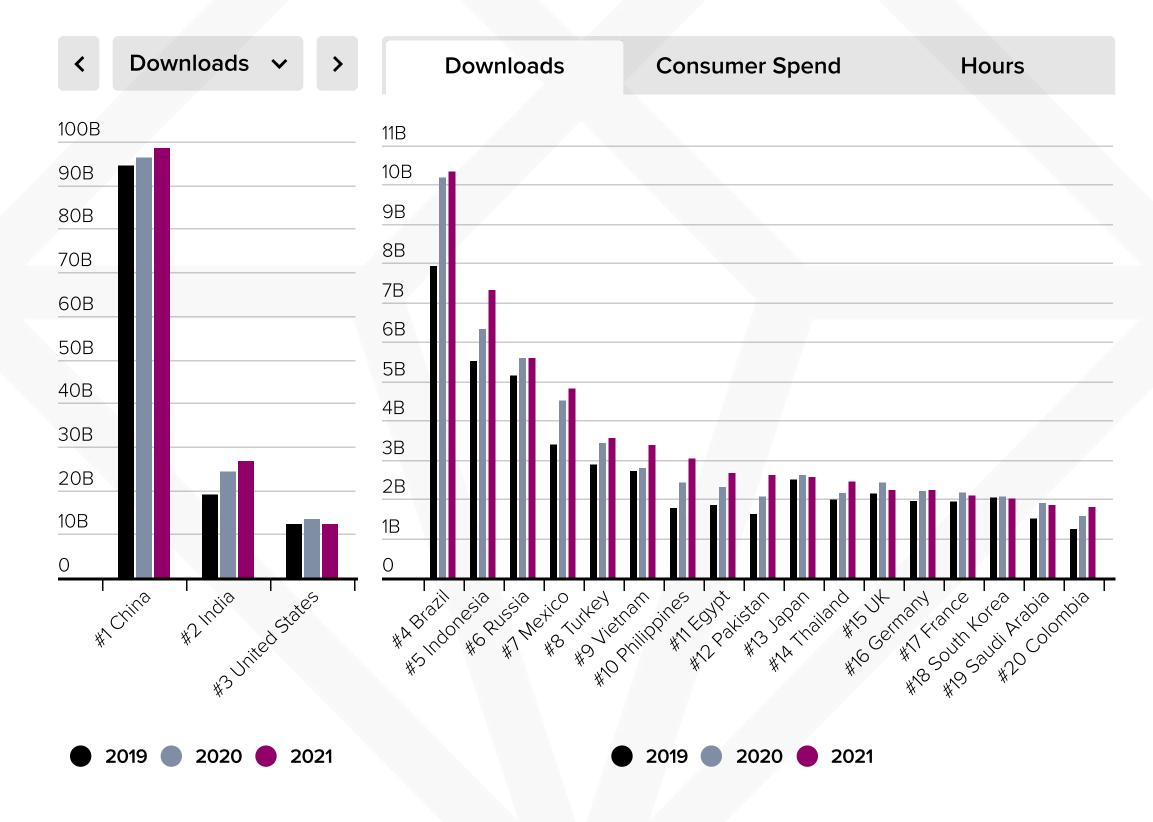
The average American watched 3.1 hours of TV a day, whereas they spent 4.1 hours on their mobile device in 2021.

Mobile usage estimates highlight growth sectors to inform strategic roadmap and investment priorities. Know where to make strategic decisions: advertising spend, corporate prioritization and resource allocation follow the eyeballs — and they are on mobile.

Average Hours Spent on Mobile Per Day Per User



Top 20 Mobile Markets in 2021



Source: data.ai

Note: Downloads across iOS, Google Play and third-party Android in China combined; Time spent is Android phones only; Spend is gross — inclusive of any percent taken by the app stores

MACRO MOBILE TRENDS

10.3 Billion Downloads in Brazil, \$1.13 Billion in Consumer Spend, 193 Million Hours

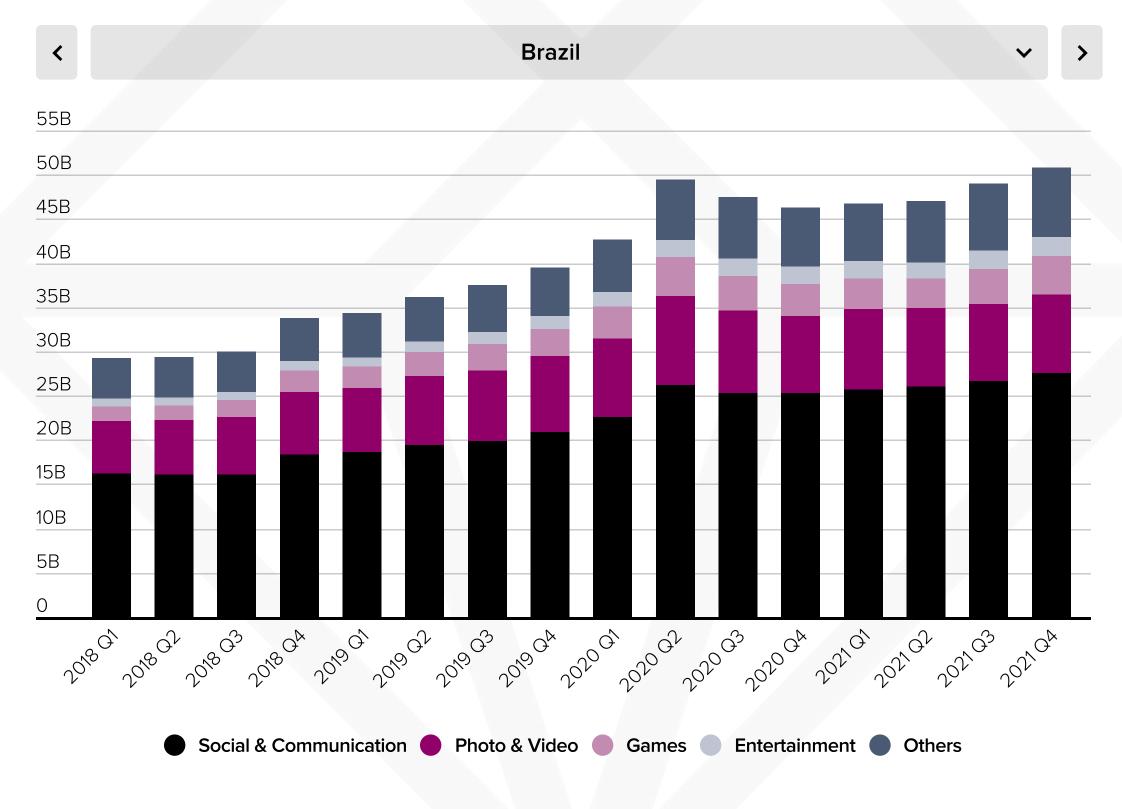
Brazil has seen phenomenal growth in consumer spend, adding an additional \$1.13 billion in 2021, \$200 million more than 2020, equating to 22% growth YoY as mobile gaming and in-app subscriptions go mainstream.

Notable categories driving growth across both downloads and consumer spend in 2021 include Entertainment (+7% YoY growth in downloads; +69% YoY increase in spend), Productivity (+8% downloads; +32% spend) and Education (+8% downloads; +8% spend).

Mobile adoption boomed in 2021, with growth across downloads, usage and app store consumer spend.

Size the market and keep tabs on fast-growing areas of opportunity in data.ai.

Hours Spent in Apps by Category



Source: data.ai
Note: Android phones

MACRO MOBILE TRENDS

7 of Every 10 Minutes on Mobile Was Spent in Social and Photo & Video Apps in 2021

As time increases on mobile in emerging categories, consumers are also engaging deeper in early-mover categories like Social, Communication and Photo & Video apps.

While Photo & Video apps (e.g. <u>YouTube</u> and <u>TikTok</u>) have seen an increase in market share of time spent, this has largely not been at the expense of current habits. Rather, consumers have turned historically 'non-mobile' time into time spent in apps and games.

The pandemic accelerated existing mobile habits, which have solidified in 2021. While social dominates for time spent globally, regional differences in app preferences highlight unique market differences. <u>Discover local trends in data.ai.</u>

MACRO MOBILE TRENDS

Mobile Ecosystem Healthier Than Ever: Publishers Released 2 Million New Apps & Games in 2021

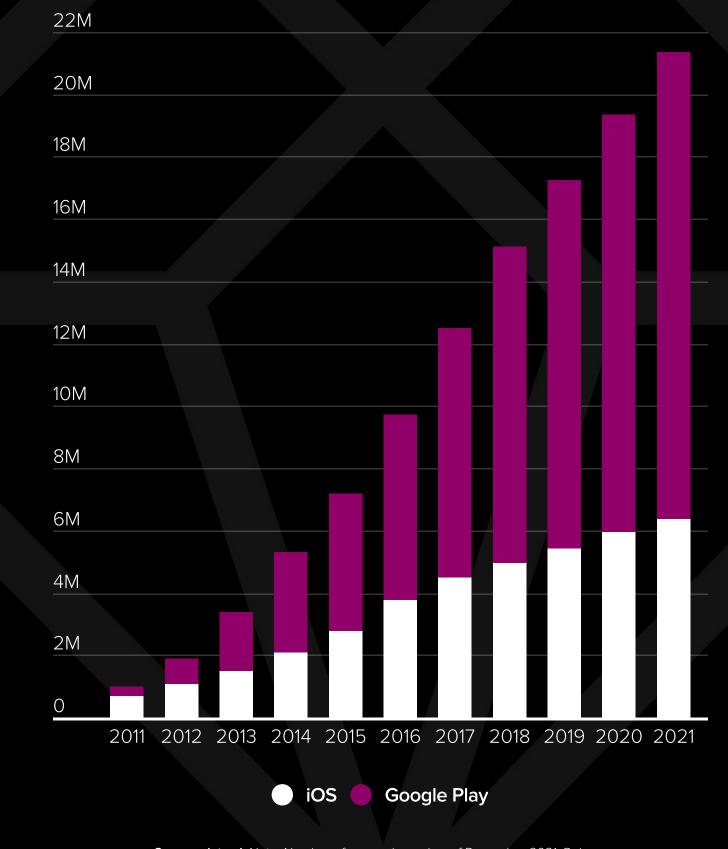
This brings the total of apps and games ever released on iOS and Google Play to over 21 million.

Google Play accounted for 77% of all apps and games releases in 2021. Across both iOS and Google Play, Games represented 15% of all new releases in 2021. The remaining 85% of new apps span all categories of the app stores, from mobile-first movers like social to mobile-forced industries like insurance and healthcare.

Apps are also removed and phased out overtime to leave the current live apps and games available to download on the app stores at 5.4 million (1.8 million on iOS and 3.6 million on Google Play).

With smartphones providing unparalleled reach and access to billions of consumers worldwide, every industry is a mobile-focused industry — New app releases illustrates the demand for engaging customers on mobile. Keep tabs on the rapidly-changing competitive landscape with data.ai.

Cumulative Number of Apps Released by Store



Source: data.ai. Note: Number of apps released as of December 2021. Release date is based on app metadata on iOS App Store or Google Play in any country

MACRO MOBILE TRENDS

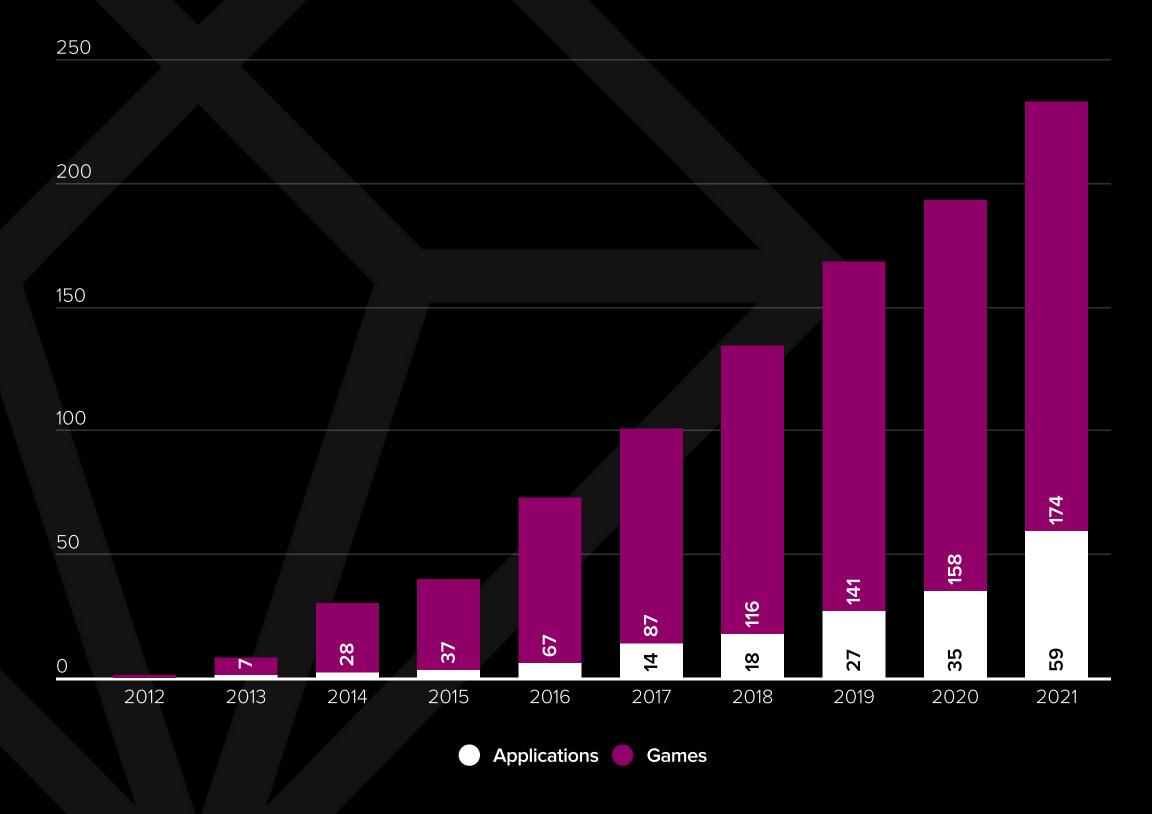
233 Apps & Games Generated Over \$100 Million Dollars Annually in 2021

Consumers migrated more of their entertainment and games consumption onto mobile. In 2021, there were over 230 apps and games surpassing \$100M in annual consumer spend, with 13 of them surpassing \$1 Billion.

This was up 20% from 2020 at 193 apps and games over \$100M in annual spend, and only 8 over \$1 Billion.

Improved connectivity, screen size and hardware have made it easier than ever before to enjoy premium applications & gaming experiences on-the-go. Consumers, consequently, migrated share of wallet to mobile as the de facto gaming console and tool for managing our lives. <u>View top grossing apps in data.ai.</u>

Number of Apps Surpassing \$100 Million in Annual Global Consumer Spend



Source: data.ai

Note: Consumer Spend across iOS, Google Play, iOS only for China; Spend is gross — inclusive of any percent taken by the app stores

Global Mobile Ad Spend



Source: data.ai

MACRO MOBILE TRENDS: ADVERTISING

Despite IDFA Fears, Dollars Flocked to Mobile Ads—Topping \$295B in 2021, up 23% YoY and Poised to Hit \$350B in 2022

Mobile is driving digital ad spend globally. Amidst an economic rebound with GDP up 5.9% in 2021, cyclical events like the Tokyo Olympics and UEFA Euro Tournament, and engrained mobile habits, ad dollars flowed to mobile as the primary and captive channel for engaging consumers — representing 70% of digital spend.

With the Beijing Olympics in 2022 and US mid-term elections, digital ad spend is set to be robust with the majority driven by mobile. Brand marketing vs performance marketing is set to pick up as businesses and brands capitalize on mobile's broad and captive audience amidst the backdrop of IDFA deprecation.

Monitor the changing best practices in mobile advertising, pinpoint ad creatives are performing best and decode the growth strategies of the leaders in the mobile user acquisition. <u>Uncover advertising insights in data.ai.</u>

The Most Searched iOS App Store Keywords in 2021

∀ Business

| Rank | Australia | Brazil | Canada | China | France | Germany | India | Indonesia | Japan | Mexico | Russia | South Korea | Turkey | United Kingdom | United States |
|------|--------------------|---------------------|--------------------|------------|----------------------|----------------------------|-------------------------------|----------------|----------------|--------------------|----------------------|----------------|---------------|---------------------|----------------------------|
| 1 | australia | google meet | job | boss 直聘 | scanner | teams | whatsapp+ | zoom | zoom | zoom | zoom | zoom | edevlet | scanner app | zoom |
| 2 | seek | zoom | zoom | 企查 查 | zoom | zoom | zoom | google meet | yahoo | meetings | почта россии | 줌 | türkiye | zoom | microsoft teams |
| 3 | australia post | meet | linkedin | 天眼 查 | teams | scanner app | google meet | meet | teams | meet | hh.ru | 알바몬 | zoom | teams | indeed |
| 4 | job | claro | indeed | 腾讯 会议 | linkedin | pdf scanner | whatsapp business | meetings | やぶー | google meet | зум | 알바천 국 | linkedin | scanner | teams |
| 5 | zoom | linkedin | teams | 阿里 云 | pôle emploi | scanner app kostenlos | call recorder for iphone free | pdf | やぶー | teams | сканер | 한글 | i şkur | microsoft teams | microsoft authenticator |
| 6 | linkedin | meetings | canada post | wps | camscanner | autoscout24 | scanner | linkedin | やぶー | microsoft teams | леруа мерлен | 알바 | stream | scanner app free | duo mobile |
| 7 | jobs | teams | microsoft teams | 企业 微信 | indeed | microsoft teams | teams | pln | まいなぽいん とアプリ | pdf | мой налог | 사람인 | meetings | linkedin | linkedin |
| 8 | microsoft teams | vagas de emprego | chat | 顺丰 | whatsapp business | microsoft authenticator | linkedin | jobstreet | ずーむ | linkedin | лукойл | 블라인 드 | meet | indeed | google meet |
| 9 | xero | minha claro | google meet | 今日 头条 | pdf | linkedin | zoom meeting | scanner | zoom アプリ 無料 | stream | teams | pdf | teams | cam scanner | the zoom app for iphone |
| 10 | teams | cpf | services | 钉钉 | ornikar | pdf | scanner for iphone | jne | zoom アプリ 無料 | chat | сканер документов | 스캔 | pdf | uber driver | scanner app |

<u>Uncover trends in App Store Optimization (ASO)</u> in and competitive insights on app store search traffic, keyword rankings and paid app store search ads in data.ai.

Gaming

Jam City's business has experienced terrific growth over the years and we head into 2022 with billions in aggregate lifetime revenue and tens of millions of players around the world. data.ai has remained a valued partner whose market intelligence platform provides industry benchmarking and competitive insights across the mobile ecosystem which our team uses daily to help drive our continued success at scale.

Josh Yguado President and COO Jam City



Additional \$75 Million in Gaming Consumer Spend was Added in 2021 in Brazil, Bringing Total to \$571 Million

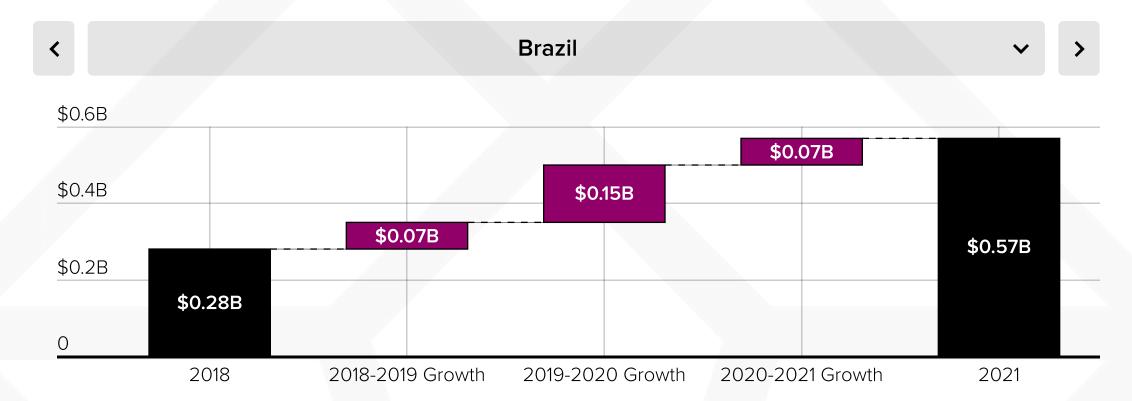
In 2021, hit games such as *Roblox* and *Genshin Impact* saw further growth in consumer spend as mobile games are now capable of offering console-like graphics and gameplay experiences.

Hypercasual games like <u>Bridge Race</u> and <u>Hair Challenge</u> were key drivers of downloads, but 2021 saw some well known IPs such as <u>Pokémon UNITE</u>, and <u>PUBG: NEW STATE</u> making major gains in downloads and usage.

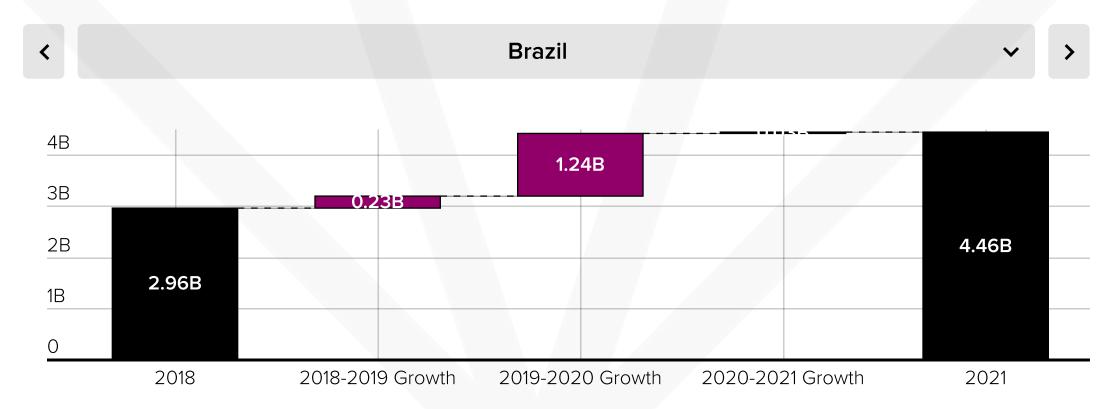
The fastest growing app store-defined gaming category was Arcade & Action games, increasing by an additional \$20 million YoY in Brazil to a total of more than \$189.4 million in gaming spend (+11% YoY).

Mobile game sustained strong momentum from pandemic surge — 2021 in gaming was as dynamic as any previous year. The time to act is now.

Mobile Game Consumer Spend Growth

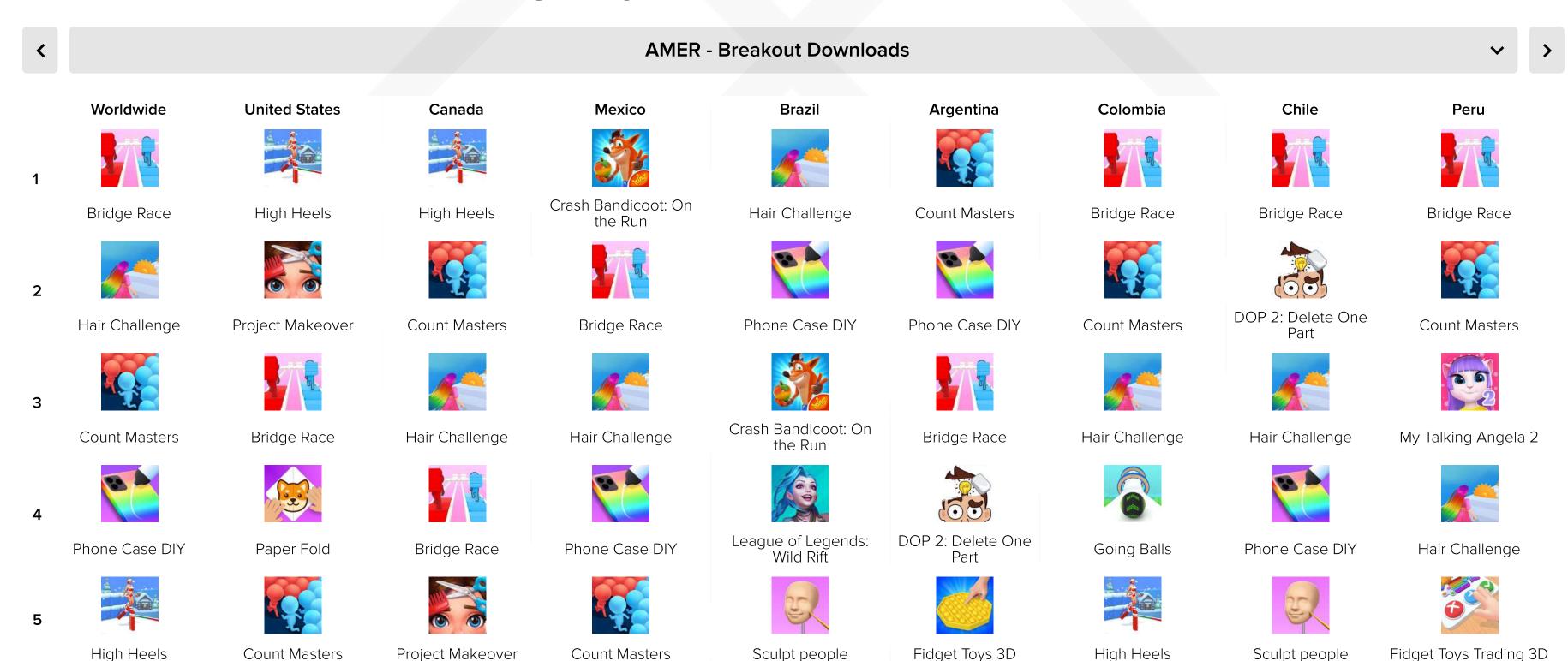


Mobile Game Downloads Growth



Source: data.ai Note: Downloads across iOS, Google Play and third-party Android in China combined; Time spent is Android phones only; Spend is gross — inclusive of any percent taken by the app stores

2021 Breakout Rankings by Market | Games



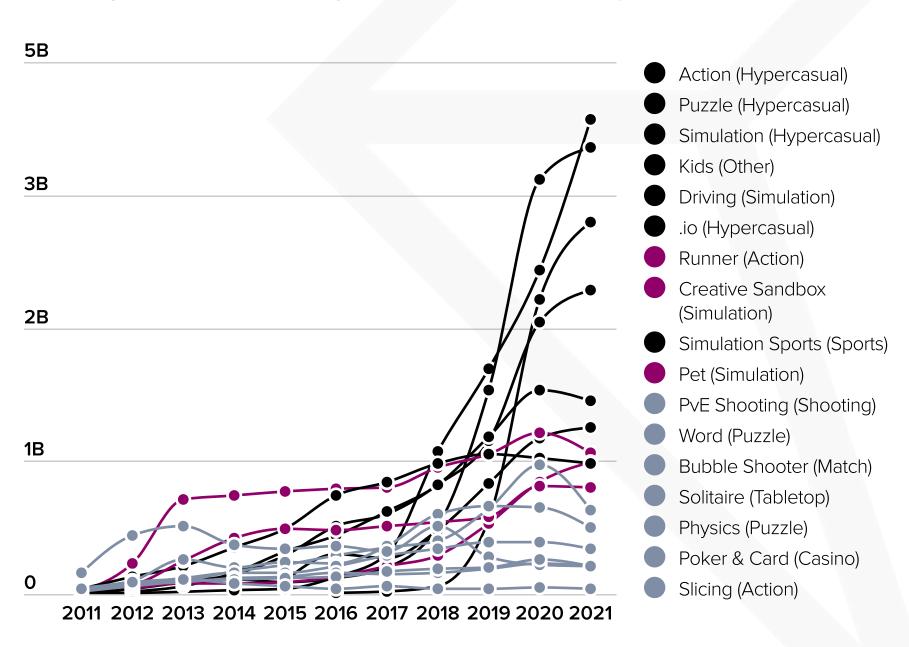
Learn More: Uncover the <u>Top Games by Change in Yearly Downloads</u>

Source: data.ai Note: Top Apps by year-over-year Downloads, Consumer Spend and Average Active User Growth across iOS, Google Play. MAU Growth on iPhones and Android Phones

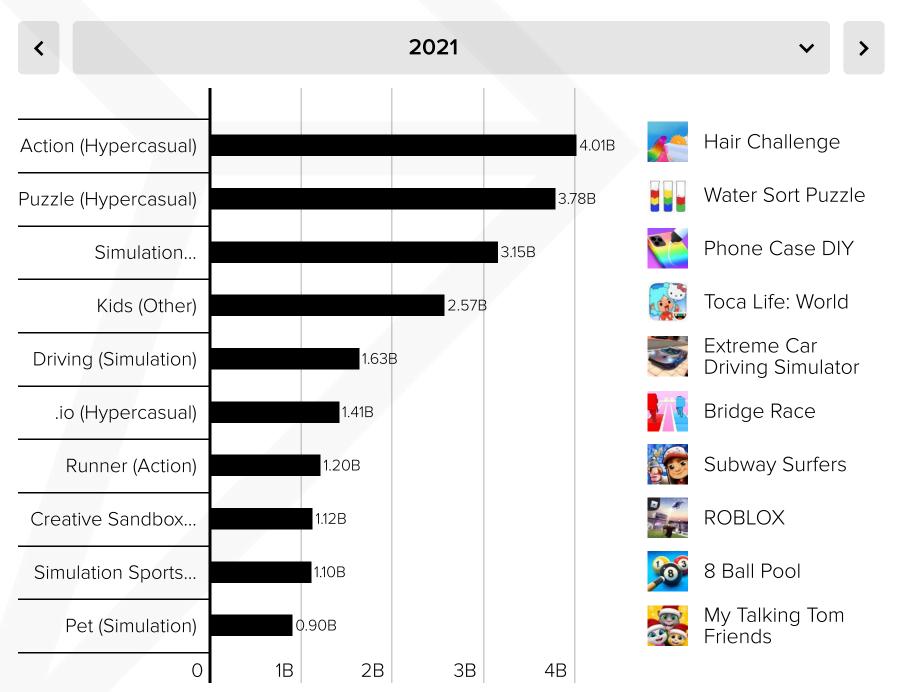
Astronomical Rise of Hypercasual: Innovation & Shifting Player Preferences Gave Way to Emerging Game Genres

Yearly Evolution of Top Genres by Downloads 2021 Top Genres 2021's Top Genres in 2011

2011 Top Genres



Worldwide | Top Gaming Subgenres & Top Games by Downloads

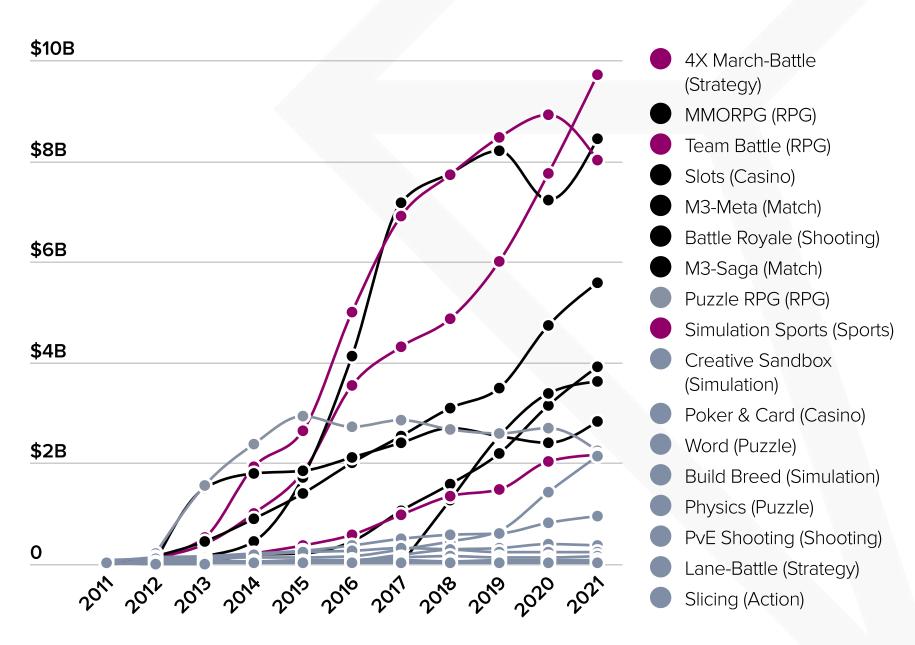


<u>Analyze More Genres in data.ai's Game IQ Market Sizing Report</u>

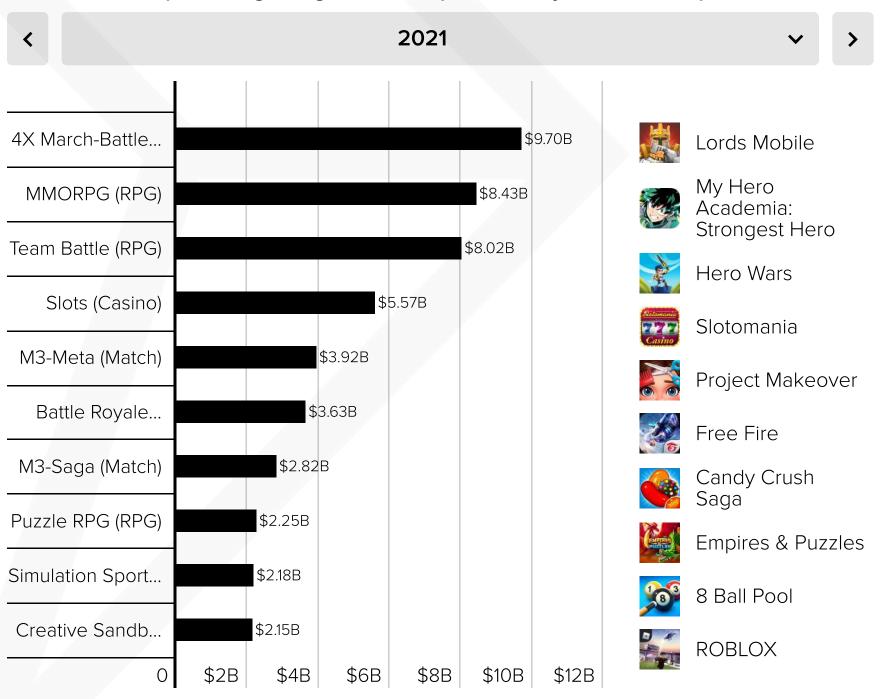
4x March-Battle Strategy Games Emerged as the Most Monetizable Genre for Mobile Games

Yearly Evolution of Top Genres by Consumer Spend

2021 Top Genres 2021's Top Genres in 2011 2011 Top Genres



Worldwide | Top Gaming Subgenres & Top Games by Consumer Spend



Analyze More Genres in data.ai's Game IQ Market Sizing Report

Source: data.ai Note: Downloads across iOS, Google Play. China is iOS only. Genre breakdown based on App Annie Game IQ Taxonomy as of January 7th, 2022

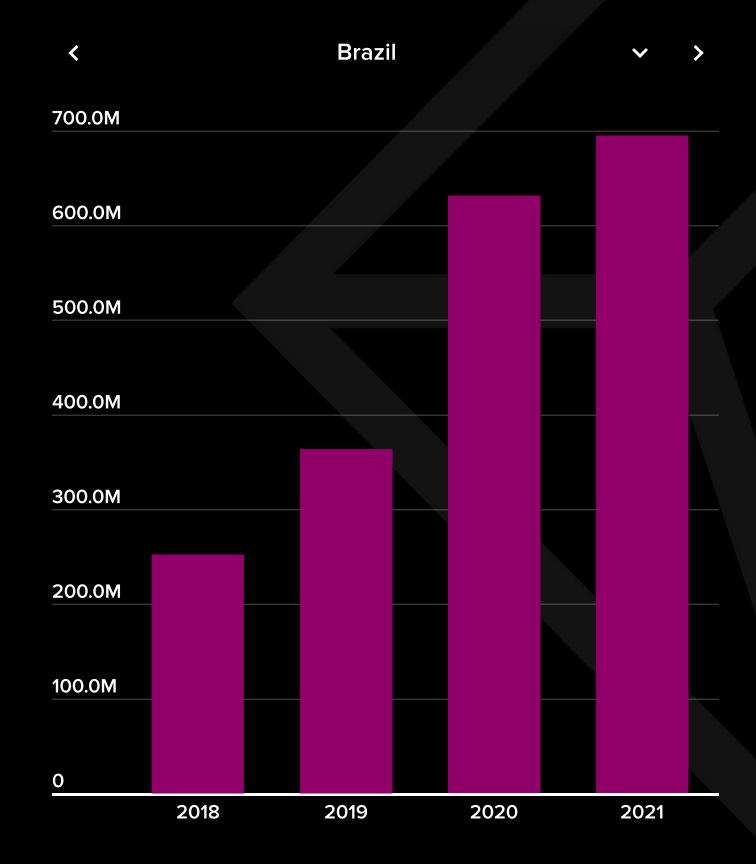
Finance

Consumers have shown how much they love the convenience and control of our all-in-one shopping app. From shopping inspiration and payment methods to transparent banking, budgeting features and post-purchase services, the Klarna app helps consumers to save time and money at every step of the shopping journey. With 70% of mobile shoppers looking for a single app that better unites services and features instead of switching between apps, Klarna is optimally positioned to become the world's favorite way to shop, pay and bank.

David Sandström
Chief Marketing Officer
Klarna



Finance App Downloads by Country



Source: data.ai Note: Downloads across iOS, Google Play; China is iOS only

FINANCE

Finance App Downloads in Brazil Surpassed 693M in 2021, With 2Y Downloads Growth Up 91% and YoY Up More Than 10%

Although not the largest markets globally, Mexico, Indonesia, Argentina, and Brazil saw the largest growth over the past 4 years, up 250%, 185%, 180% and 175%, respectively. Globally, Finance app downloads jumped 28% YoY to 5.9 Billion.

In Latin America, there is a substantial underbanked community as 70% of their population does not have a bank account and nearly 80% does not have a credit card. Consumers are more willing to try alternatives to retail banks, such as neobanks, which tend to be more accessible to those without excellent credit and offer custom features better suited for specific needs.

Knowing high-growth areas is key for app publishers when determining their expansion strategies. <u>Compare Finance app downloads over the years and track their market growth.</u>

FINANCE

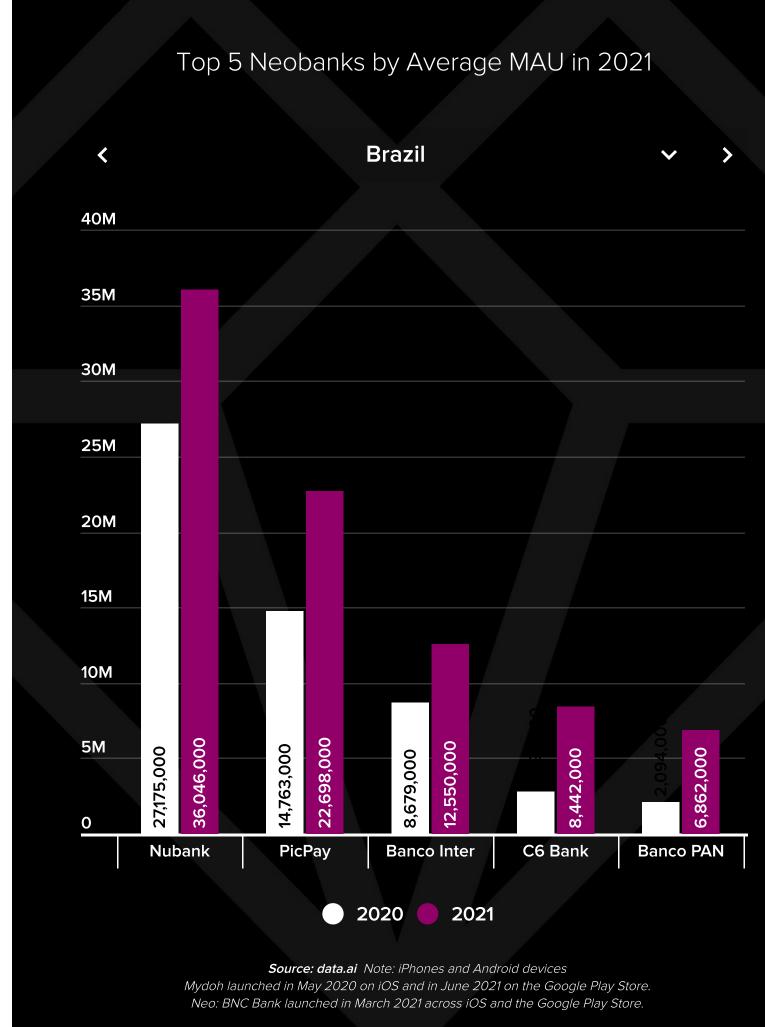
Neobanks Gain in Popularity as YONO SBI, Nubank, and PicPay Each Saw >30% YoY Increase in Average MAU Worldwide

Most countries tend to use homegrown neobanks; Mexico is an exception, where <u>Brazil's Nubank</u> topped the charts across both countries.

In fact, Brazil is a hotspot for neobank adoption as it has a large population that currently does not have relationships with retail banks; *Nubank* and *PicPay* had the second and 3rd highest average MAU worldwide in 2021, while its *C6 Bank* and *Banco PAN* saw >200% growth in MAU YoY.

In contrast, Australia's user base, for example, rely less on neobanks due to the popularity of the advanced money movement capabilities within the region's existing retail banks.

Knowing the current offerings of existing finance apps and whether they serve the needs of the region's users is crucial for any finance app publisher. <u>Explore Brazil's Top Finance apps of 2021</u>.



FINANCE

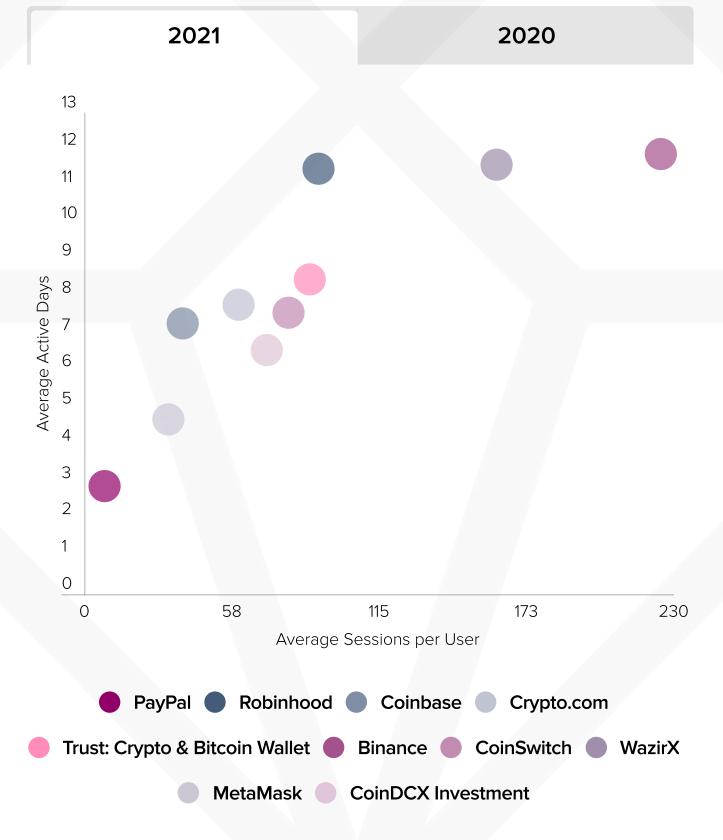
PayPal Entered the Cryptocurrency Market in 2021; Binance & WazirX Saw the Highest YoY Increase in Sessions Per User Worldwide

Although US-HQ'd publishers dominates the cryptocurrency space, taking up half of the top 10 most downloaded cryptocurrency apps worldwide, India was a rising contender in 2021.

<u>CoinDCX Investment</u> made a splash despite only launching in Q4 2020 across iOS and Google Play stores. Within one year, it has reached #9 worldwide in terms of the most downloaded cryptocurrency apps.

Although <u>PayPal</u> had the highest average MAU worldwide, <u>Trust:</u> <u>Crypto & Bitcoin Wallet</u>, <u>Binance</u>, and <u>WazirX</u> saw the highest increase in usage YoY; understanding the flexibility of their offerings that go beyond trading cryptocurrency assets is crucial for any app publisher that tries to emulate their successful adoption worldwide. <u>Compare the top breakout cryptocurrency apps of 2021.</u>

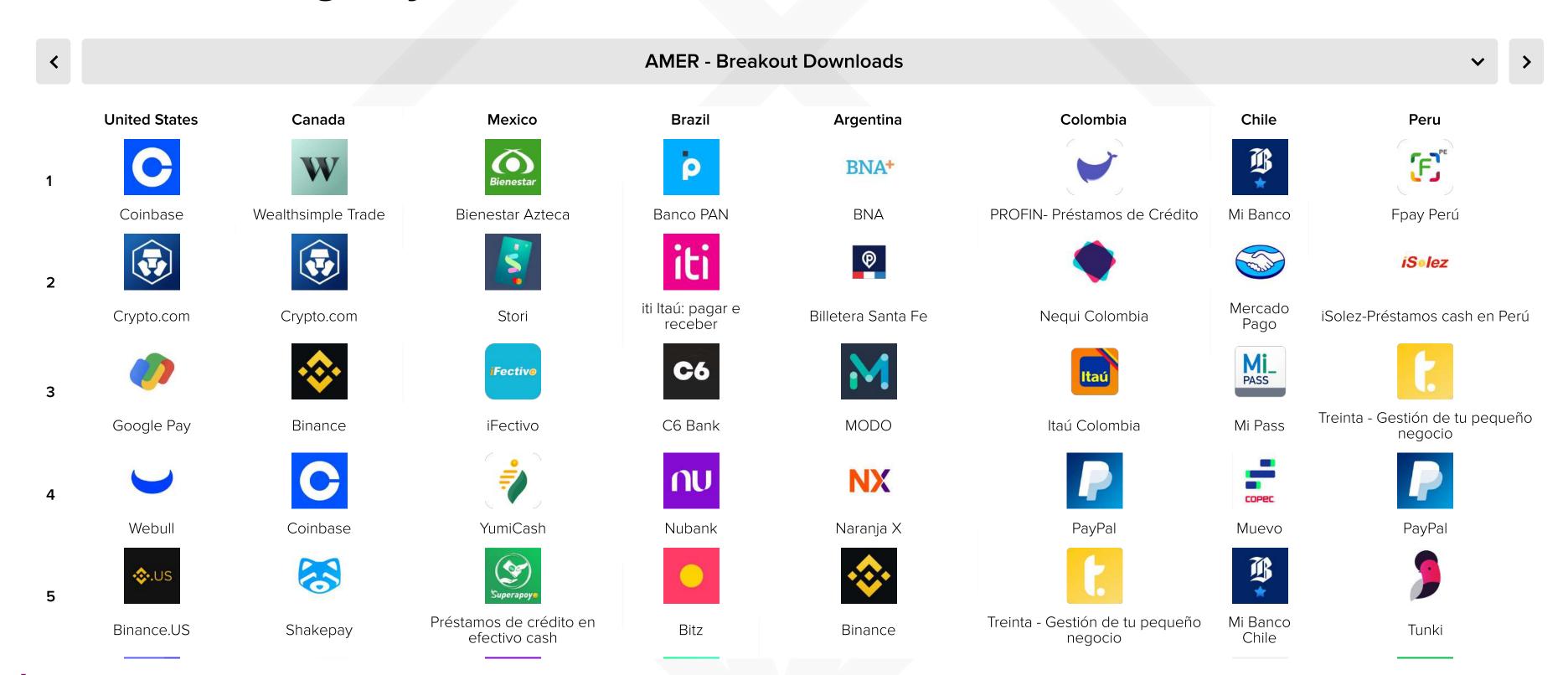
Monthly Engagement Among the Top 10 Cryptocurrency Apps by Worldwide Downloads in 2021



Source: data.ai Note: Downloads across iOS, Google Play; usage data on Android only. Average Sessions per User represents the average number of sessions per active user in a given month throughout 2021. Average Active Days represents the average days of use across all active users in a given month throughout 2021.

CoinDCX Investment was launched in Q4 2020 across iOS and Google Play Stores.

2021 Rankings by Market | Finance



Learn More: Uncover the <u>Top Finance Apps by Change in Yearly Downloads</u>

Source: data.ai Note: Combined iOS and Google Play; China is iOS only; MAU is across iPhones and Android phones; Market-level rankings; Breakout defined as Year-over-Year growth in Downloads or average MAU

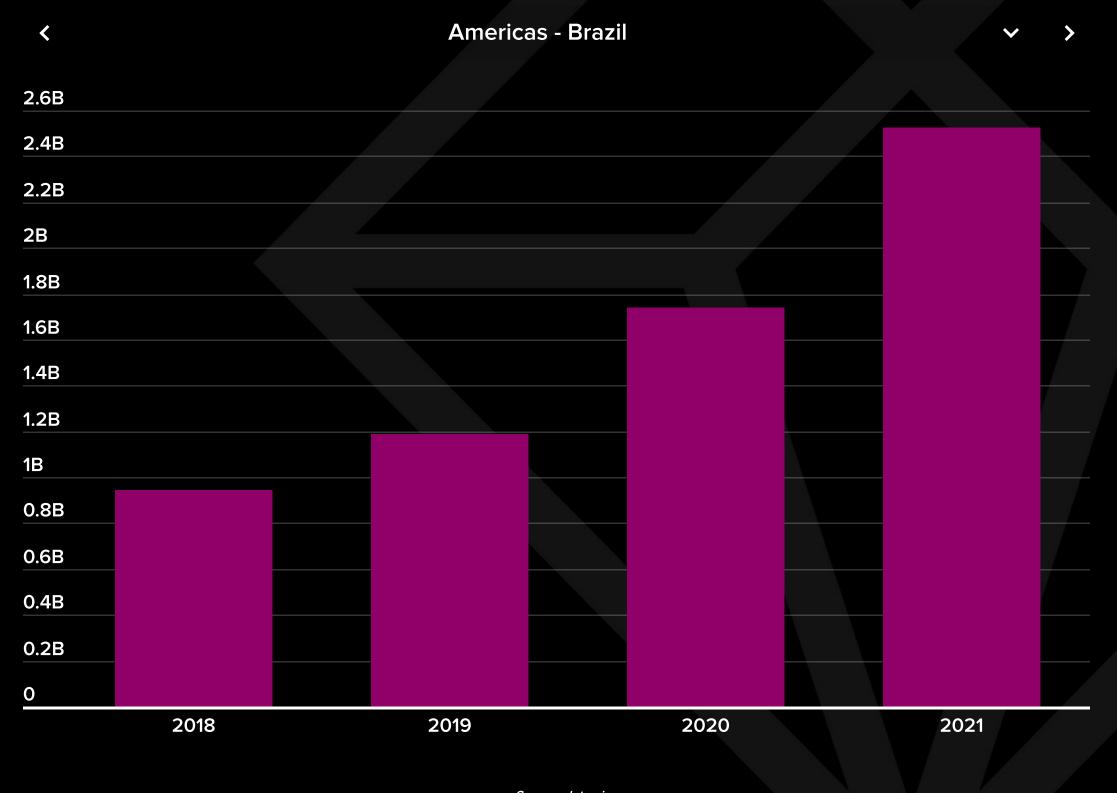
Retail

At ASOS, our vision is to be the go-to global destination for fashion loving 20-somethings - the place that our target consumers turn to for fashion. Our apps are critical in helping us realise that vision - enabling us to create a place that's inspiring, engaging and entertaining - with the technical agility, global scale, and resilience to continuously innovate and personalise our offering to become the fashion best friend of each of our customers.

Vijay Ram Head of Technology - Mobile Apps ASOS

asos

Annual Hours Spent in Shopping Apps



RETAIL

Time in Shopping Apps Reached Over 2.5 Billion Hours Spent in Brazil

Global time spent in Shopping apps rose 18% year-overyear, with strong movement in fast fashion, social shopping, and mobile-savvy big-box players.

Among the countries with the fastest growth were Indonesia, Singapore and Brazil at 52%, 46% and 45% growth YoY, respectively.

Mobile shopping habits catalyzed during COVID-19 have solidified. Monitor peak shopping periods in data.ai.

Overseas Brands Grow International Footprint, Growing Market Share by 11% in Brazil

APAC-HQ'd shopping apps have grown international downloads, shifting market share to non-native-based brands in many regions. Across AMER, overseas publishers grew in share of downloads. In the US, however, the mobile shopping market continued to be dominated by US-based brands (66% share), with only 34% from non-domestic brands.

Still, US-based apps lost 5% share of downloads to overseas publishers, driven by China, Canada, Australia, and Japan. In Brazil, Overseas-HQ'd apps dominated 52% of all shopping app downloads in 2021, an increase in share of 11% YoY.

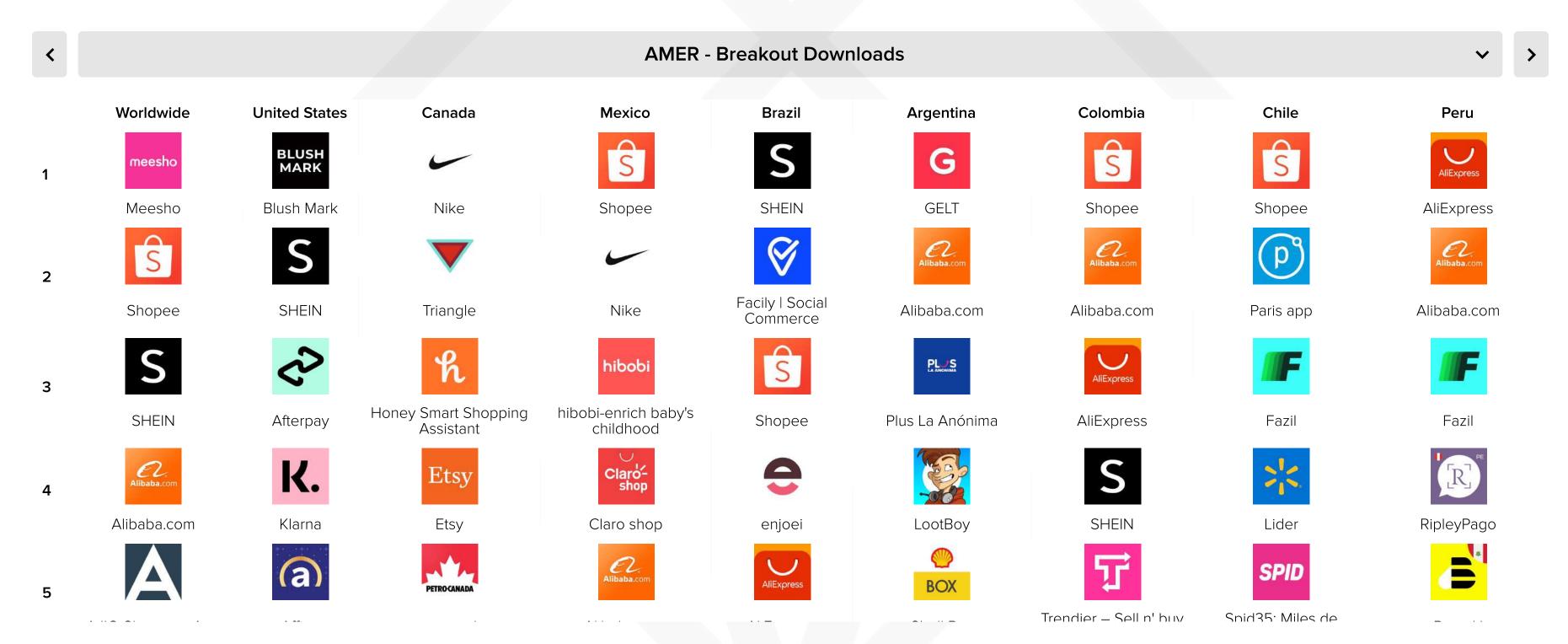
Retail brands are losing share to non-local companies, most notably in regions across AMER as shoppers turn to overseas-HQ'd Shopping apps. Evaluate which of the top companies are driving shifts in market share.

Going Global: Share of Shopping Downloads by Overseas-HQ'd Publishers



Note: Downloads across iOS and Google Play; China is iOS only

2021 Rankings by Market | Shopping

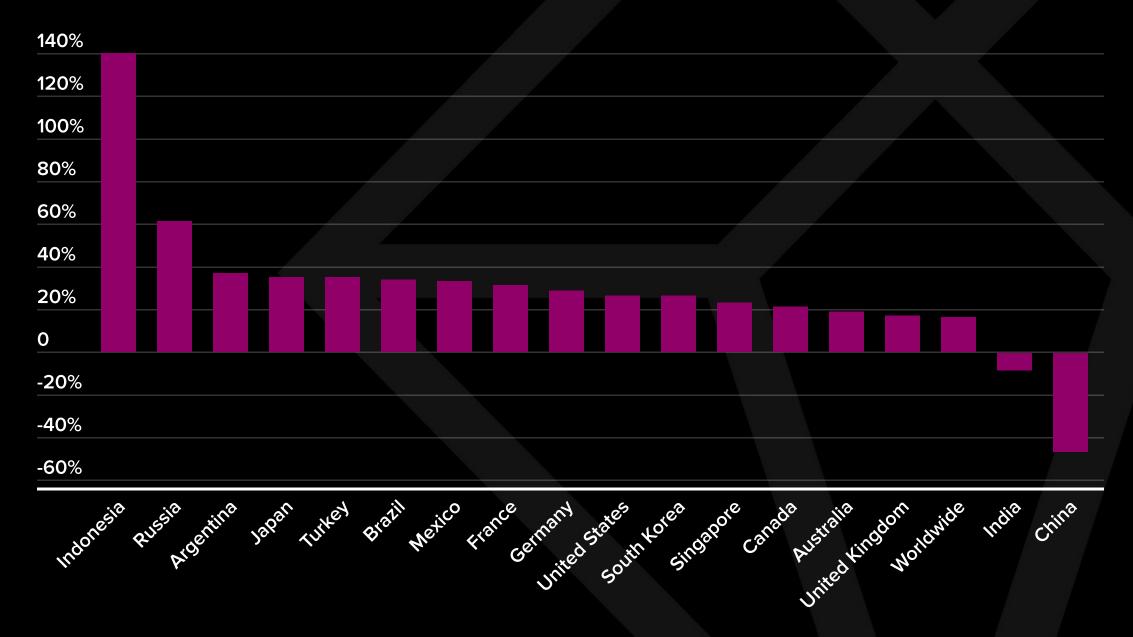


Learn More: Uncover the <u>Top Shopping Apps by Change in Yearly Downloads</u>

Source: data.ai Note: Combined iOS and Google Play; China is iOS only; MAU is across iPhones and Android phones; Market-level rankings; Breakout defined as Year-over-Year growth in Downloads or average MAU.

Video Streaming

Growth in Total Hours Spent Streaming 2021 vs 2019



Growth in Total Hours Spent on Short-Form Streaming
Apps in China, 2021 vs 2019





Kwai: +225%

TikTok: +205%

Source: data.ai

Note: Time spent on Android phones among top 20 video streaming apps by time spent; worldwide excludes China

VIDEO STREAMING

Total Hours Spent Watching Video Streaming Apps Grew 34% in Brazil Since Pre-Pandemic Levels

Globally, time spent in video streaming apps grew 16% since 2019. Most countries in Asia saw growth in time spent among the top 20 video streaming apps, continuing the momentum first seen during the initial stage of the global pandemic.

Brazil saw a 34% 2-year-increase in time spent in video streaming apps. Notable apps driving growth in 2021 include <u>Globo Play</u>, <u>Twitch</u>, <u>Disney+</u>, <u>Pluto.tv</u> and <u>HBO Max</u>.

Despite access to bigger screens, consumers are still watching content on mobile. Competition is heating up in the space and exclusive content is a way of drawing in new viewers. Keep track of the rapidly changing industry in data.ai.

VIDEO STREAMING

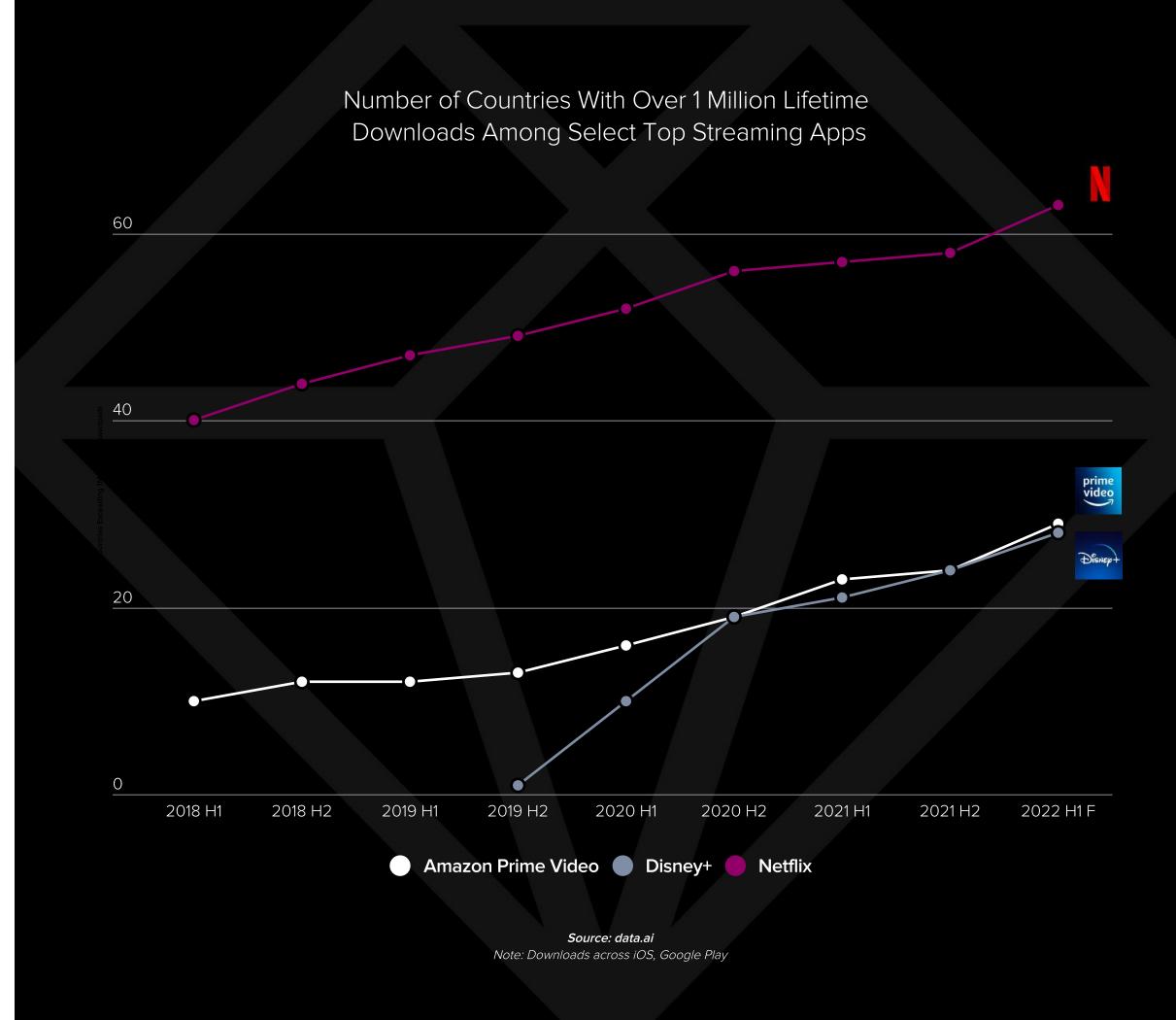
Global Expansion Heats Up: Netflix Set to Surpass 1 Million Downloads in Over 60 Countries in 2022

<u>Netflix</u> has the largest global footprint among video streaming platforms and a robust audience in each: with over 1 million local downloads in 60+ countries.

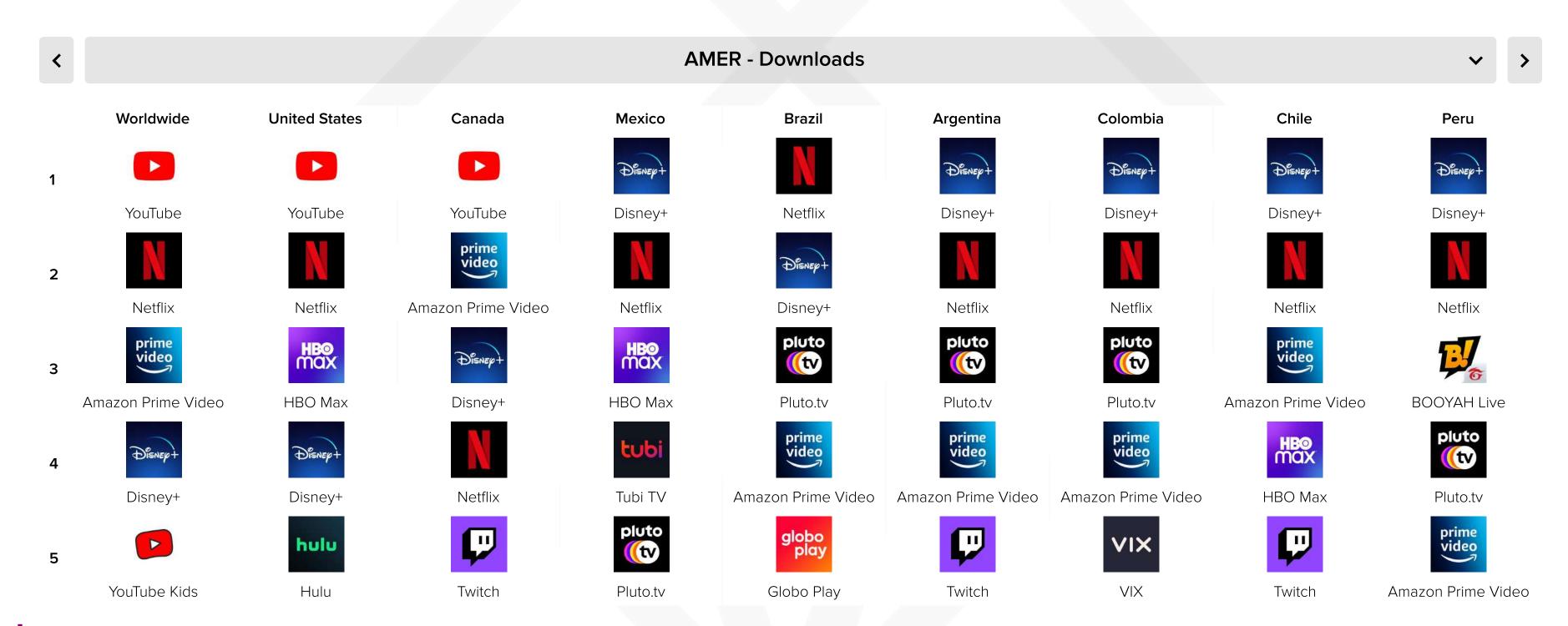
<u>Disney+</u> rivals <u>Amazon Prime Video's</u> global footprint, despite launching 7 years later on mobile.

Exclusive content, strategically timed releases, and overseas expansion are fuelling growth in the video streaming sector — a mobile-first strategy is needed to succeed.

<u>Track lifetime downloads and monitor the global</u> <u>strategies</u> among top players in your competitive set.



2021 Rankings by Market | Video Streaming



Learn More: Uncover the <u>Top Video Streaming Apps by Downloads</u>

Source: data.ai Note: Combined iOS and Google Play; China is iOS only; Market-level rankings.

Video Streaming Apps custom categorized from the Entertainment, Photo & Video, News, Sports, News & Magazines and Video Editors & Players categories across iOS and Google Play

Food & Drink

From grocery, alcohol, and convenience to morning coffee runs, we're focused on making Uber Eats reliable, flexible and easy to use.

Trusted data points from sources like data.aihelp us to measure that success and refine our mobile strategy over time.

Pierre Dimitri Gore-Coty SVP of Delivery Uber



FOOD & DRINK

New Record: Sessions in Food & Drink Apps Reached Over 4.5B in Brazil in Q4

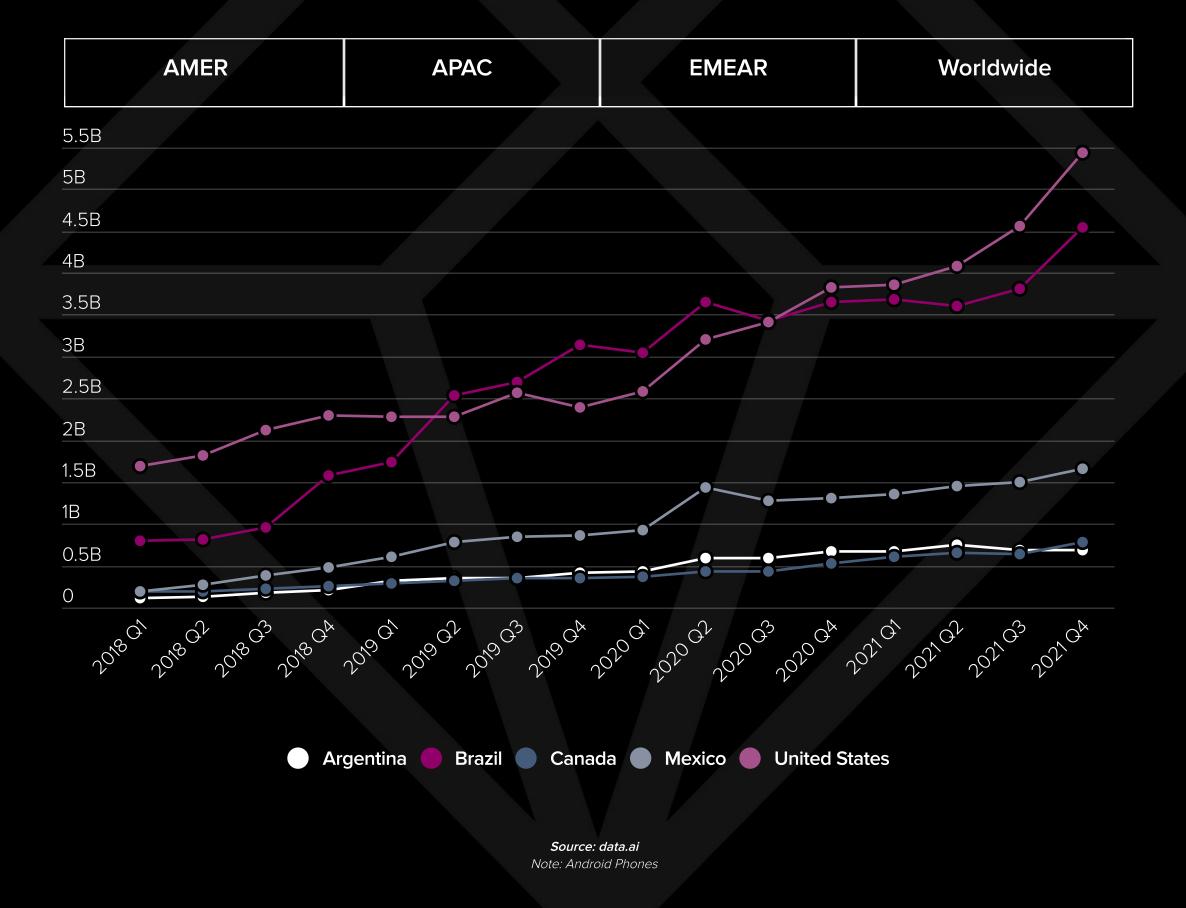
The pandemic expedited usage of Food & Drink apps across the world. Despite concerns for a slowdown following regional re-openings, an increase in both supply and in demand pushed market growth further than ever. Globally, users spent 49% more sessions YoY in 2021

in Food & Drink apps.

Globally, user sessions reached 62 billion in Q4 — the highest ever. Users in Brazil also set new records. Users spent over 4.5B sessions in Q4 in Brazil (+24% YoY in Q4), not far behind the United States at 5.4B.

Fostered by new players, partnerships, delivery, quick-fulfillment, user demand continued to increase throughout the year, with users spending more sessions than ever in Q4. Dive deeper in data.ai's <u>market level report</u> to see how downloads and sessions stack up.

Quarterly Sessions Spent in Food & Drink Apps Growth Over Time



Top Keywords by iOS Search Volume Among Food & Drinks Apps

Brazil

restaurantes

comida

food mcdonalds

happy delivery
burger king

FOOD DELIVERY

QSR & FAST-CASUAL

GENERIC KEYWORDS

DISCOVERY / REWARDS / RECIPES

Source: data.ai Note: Top 10 keywords searched on iPhone within each region, ranked by average est. keyword search volume in 2021

FOOD & DRINK

Established Markets: QSR Terms & Delivery Dominated the Top Searches in 2021

In established markets, users tend to search for branded keywords. In emerging markets for mobile Food & Drink, brand awareness remains an opportunity. Top searches in Brazil included a mix of QSR, food delivery and generic keywords.

For many categories on mobile, branded keywords top the charts by app store search traffic. In this case, what users wanted, they searched for. In established markets such as the US, UK, and France, branded food delivery keywords ranked among the top terms, followed by QSR brand names.

Generic keyword opportunities within ASO surfaced in many other markets — in 2021, user searches for "food", "delivery" and "coffee" were on the rise. "Food" was a top 5 keyword in several regions, ranking as the #1 searched keyword in Canada, Mexico, and Australia, and at #2 in Turkey and #3 in Brazil.

<u>Use the Keyword Search report to understand where competitors</u> <u>stack up for the top organic keywords in each country.</u>

International Launches& Recent AcquisitionsDrive Rapid Growth for10-Minute Delivery

In 2020, consumers wanted delivery. In 2021, consumers wanted delivery...now. Hyper-fast grocery delivery apps grew at speeds faster than their delivery times.

Turkish delivery company <u>Getir</u> hit nearly 7 million downloads worldwide in Q4 2021, up 105% from Q1 - driven by international expansion. After making their <u>first acquisition</u> in July to expand into Spain and Italy, <u>Getir acquired UK-based rival Weezy</u> in November just weeks before starting operations in the US — wrapping up 2021 with services in <u>Chicago, NYC, and Boston</u>.

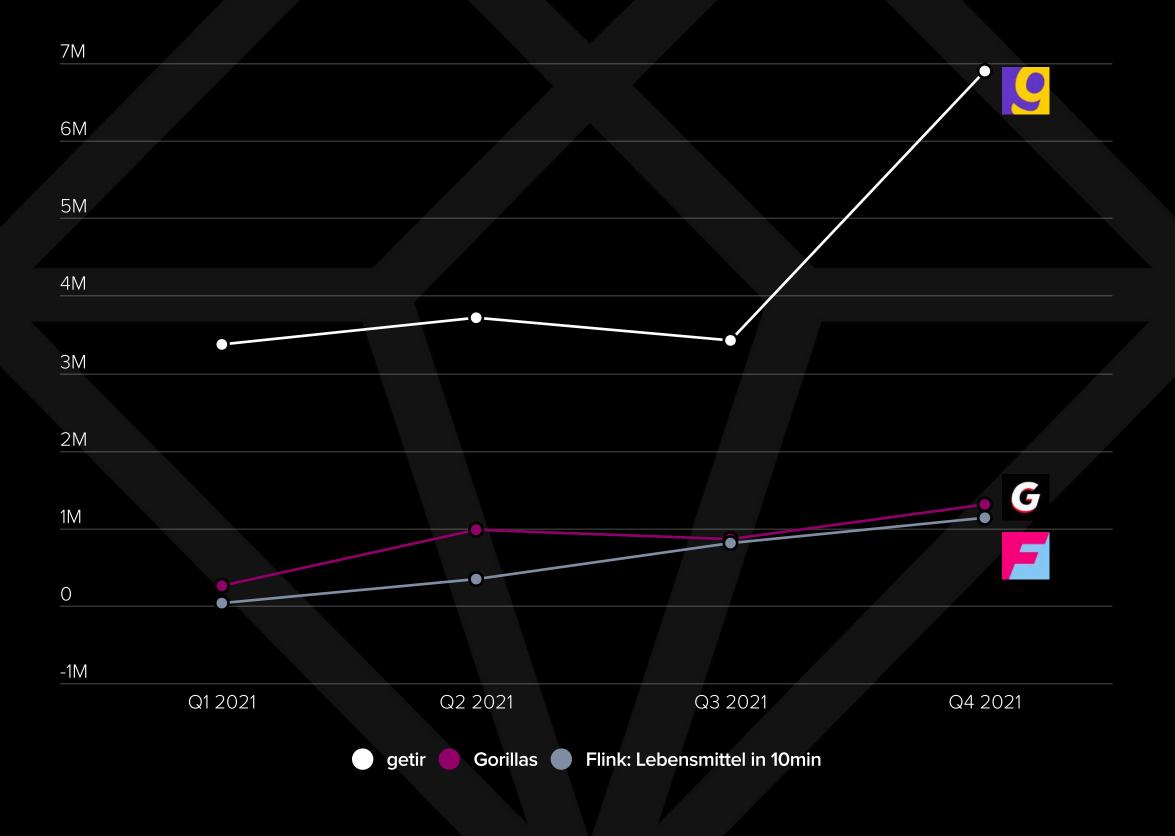
Germany-based *Gorillas* and *Flink* are among several rapidly growing players both reaching over 1 million global downloads in Q4.

Dive into emerging trends and players even further.

Use data.ai to help <u>uncover new and emerging</u>

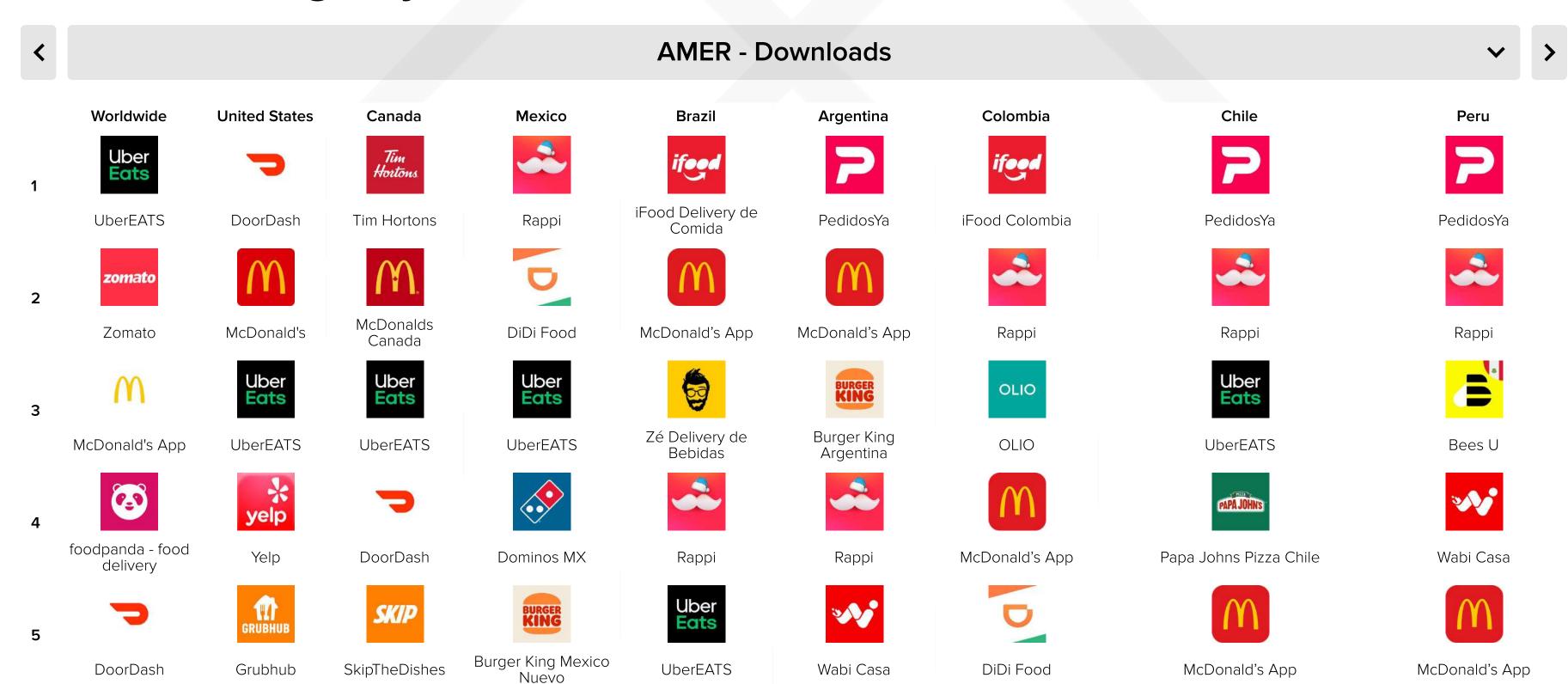
<u>competitors</u> driving global growth within rapid delivery.





Source: data.ai Note: iOS and Google Play combined; Select top delivery apps marketed as having "10-minute delivery"

2021 Rankings by Market | Food & Drink



Learn More: Uncover the <u>Top Food & Drink Apps by Yearly Downloads</u>

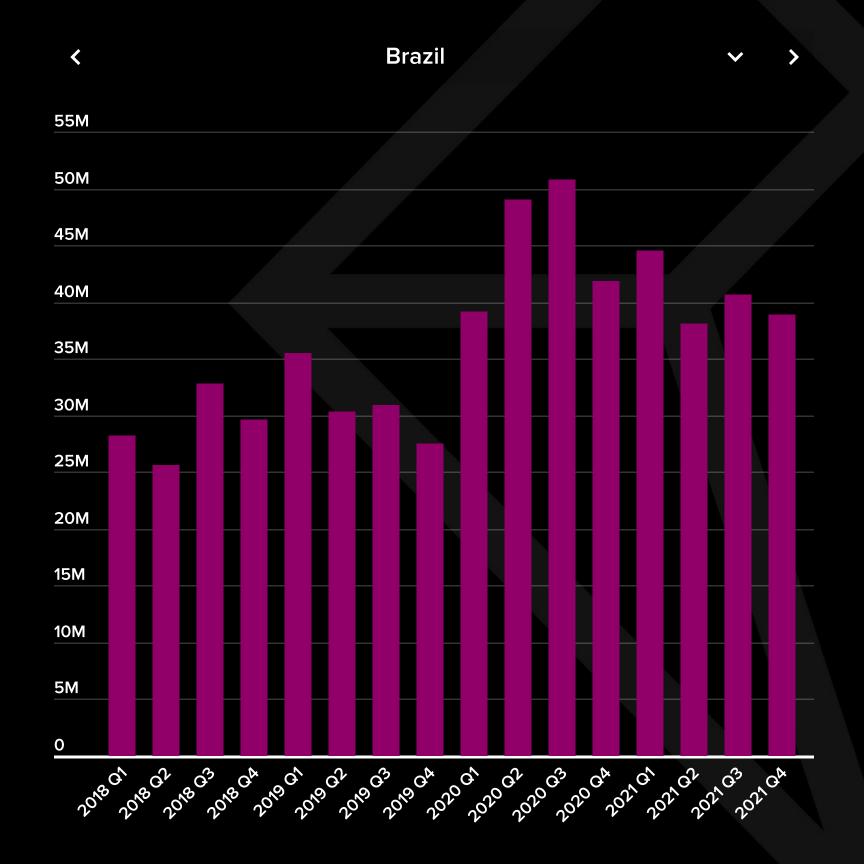
Health & Fitness

In 2021, mobile apps became more integrated in our daily lives as people aimed to enrich their lives while staying at home amidst Covid-19. We believe this trend will continue as mobile apps become more tailored to meet individual consumer needs. In the healthcare domain, we believe that more people will be using smartphones, tablets, and wearable devices even more for health management, diagnosis, and treatment.

Takuma Ishibashi Executive Director, Eisai Co., Ltd..



Quarterly Health and Fitness App Downloads by Country



Source: data.ai

Note: Downloads across iOS, Google Play; China is iOS only

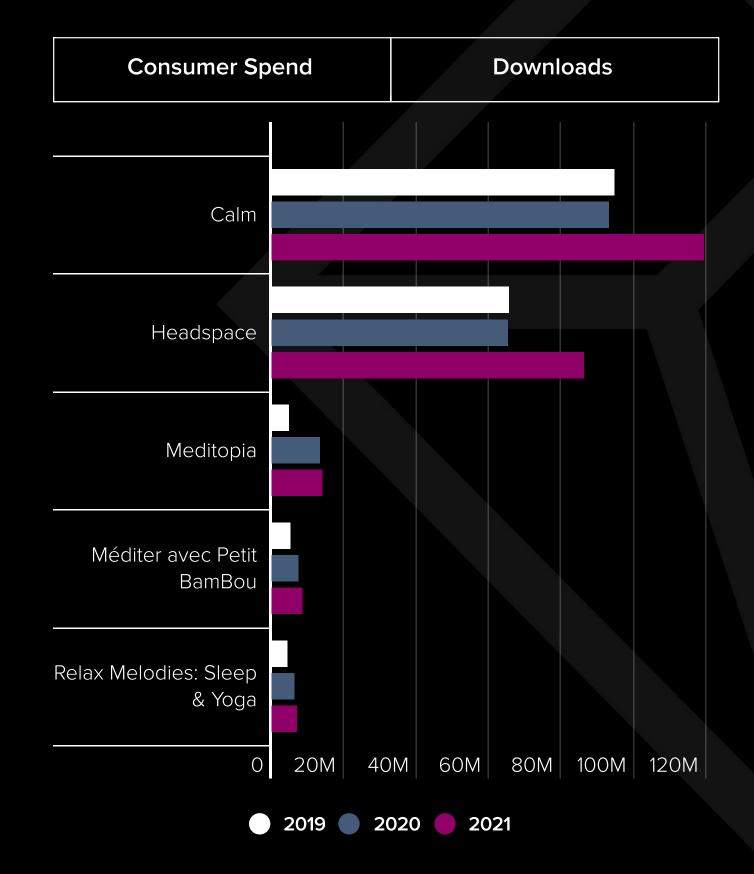
HEALTH & FITNESS

Health & Fitness App Downloads Up 30% in 2021 vs 2 Years Ago in Brazil as Health & Wellbeing Continue to be Top of Mind 2 Years Into the Pandemic

Worldwide downloads of Health and Fitness apps remained high despite seeing a slight softening from a pandemic-induced high in 2020 for most countries. While China and the United States were two markets that did not see their 2021 download volumes surpass pre-pandemic levels in 2018, there were still areas of download growth. Despite this, meditation, fitness and mental health apps saw sustained popularity YoY.

Mobile is a pulse check of consumer sentiment. Health, fitness and mental wellbeing are top of mind for consumers. <u>Monitor</u> market shifts in data.ai.

Consumer Spend & Downloads Among Top Most Downloaded Meditation Apps Worldwide



Source: data.ai

Note: Revenue and Downloads across iOS, Google Play

HEALTH & FITNESS

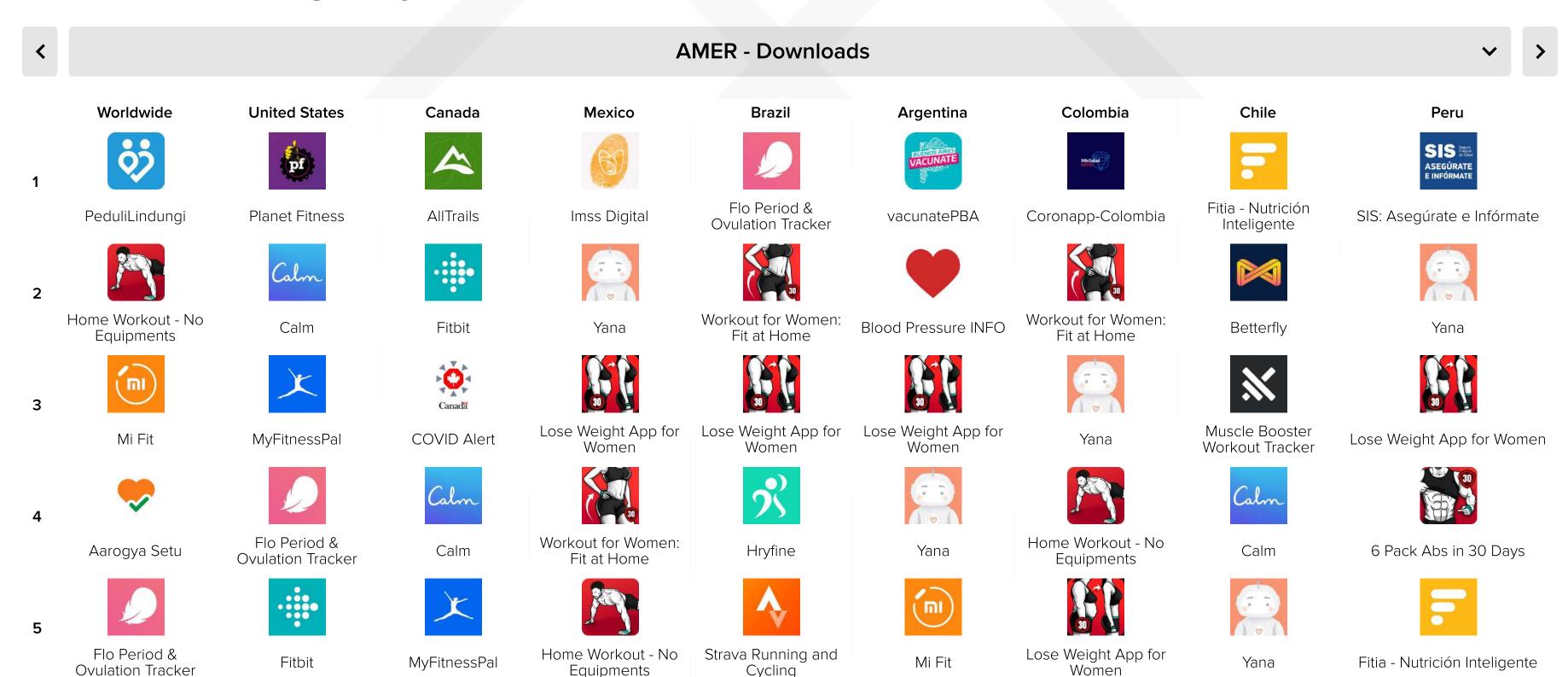
The Top 5 Downloaded Meditation Apps Saw 27% Growth YoY in Consumer Spend Following Record Downloads in 2020

Meditation apps are becoming a fast-growing subcategory within Health and Fitness apps, accelerated by the global pandemic at the start of 2020 that has since forced many to remain indoors as lockdowns become the sudden norm.

<u>Calm</u> remains the most downloaded meditation app both in 2020 and 2021 worldwide, with <u>Headspace</u> and <u>Meditopia</u> rounding out the top 3. Although downloads softened in 2021, both <u>Calm</u> and <u>Headspace</u> saw total time spent in their Google Play apps increase YoY by 12% and 15%, respectively.

More time spent in app can translate to higher revenue despite declines in app downloads. <u>Compare time spent among meditation apps to see how it correlates with revenue.</u>

2021 Rankings by Market | Health & Fitness

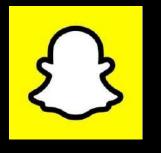


Learn More: Uncover the Top Health & Fitness Apps by Yearly Downloads

Social

Mobile augmented reality experiences are changing the way we live, from how we communicate and have fun to how we shop for and discover products. With over 6 billion AR interactions on Snapchat every day, these aren't distant hopes; it's the new reality. Thanks to the power of mobile, this cutting edge technology is at the fingertips of everyone with a cell phone right now, and as we look ahead to 2022, AR will continue to evolve and grow in utility for both consumers and businesses.

Chip Kanne Head of North America Emerging Sales Snap



SOCIAL

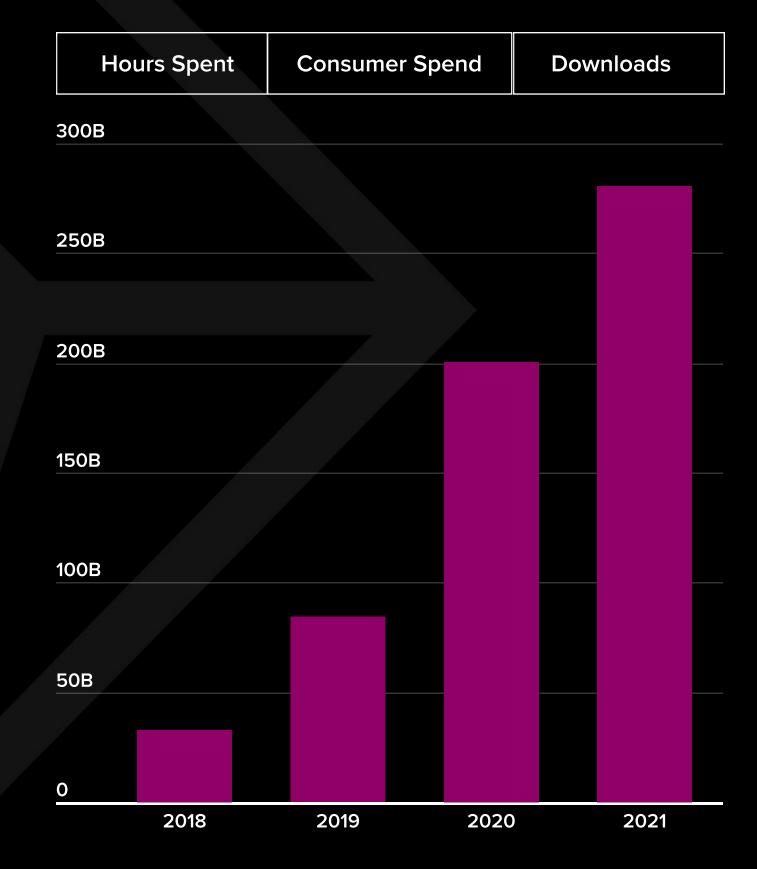
All Eyes on Live Streaming: Time Spent Grew 9x in 4 Years — Cultivating the Deepest Social Engagement

In 2021, time spent in the top 25 live streaming apps outpaced the social market overall year over year by a factor of 9 - YoY growth of 40% compared to all social apps at 5%.

<u>Live streaming apps are also driving consumer spend in Social apps</u> as consumers 'tip' their favorite content creators — with global consumer spend in the top 25 live streaming apps in 2021 growing 6.5x from 2018 and 55% YoY.

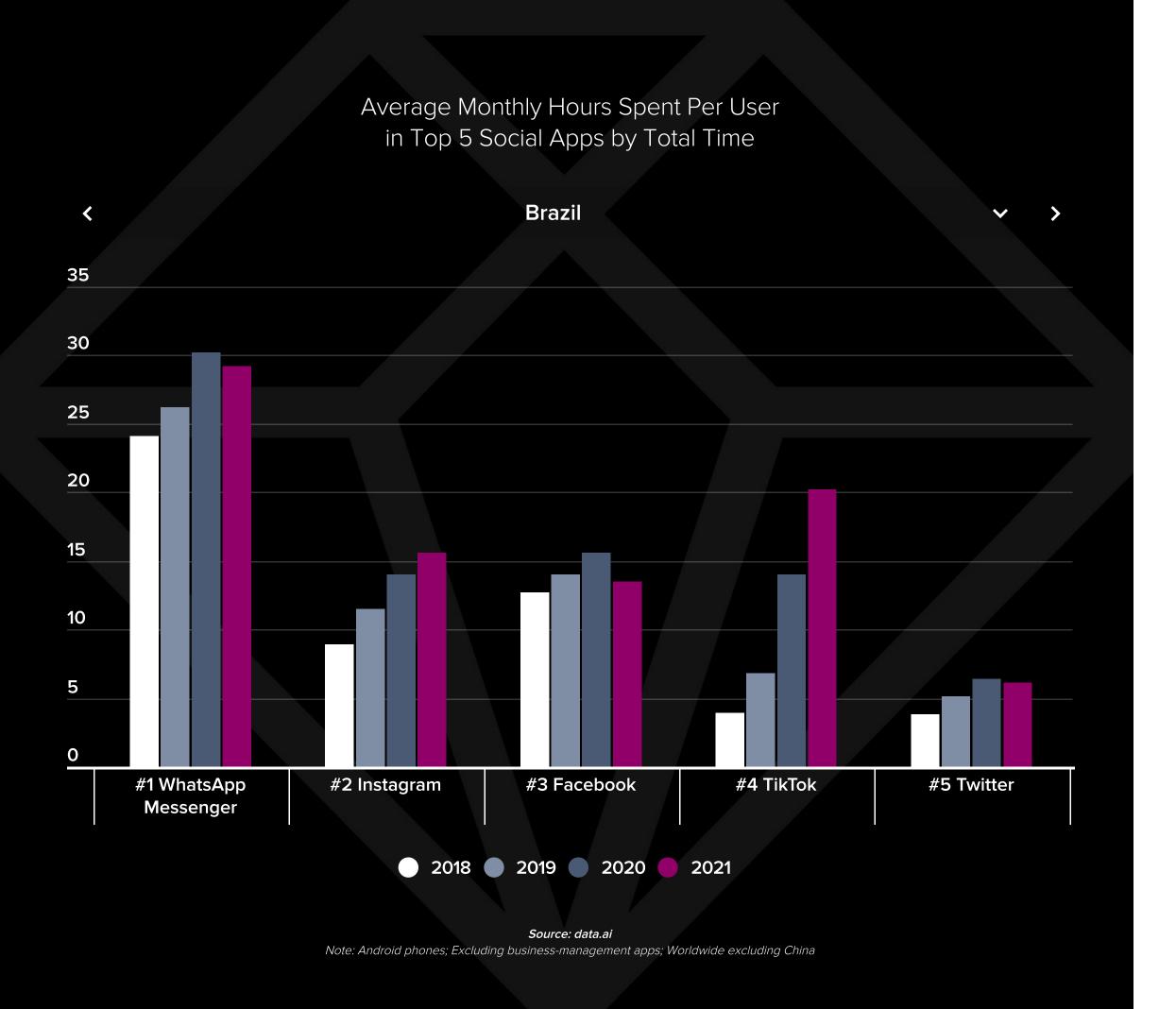
Social apps are the linchpin to connection in our mobile-first world. Live streaming apps are changing the game — providing opportunities for live shopping, content creator compensation, creative empowerment and the rise of authenticity in social apps. Keep on top of the latest social trends in data.ai.

Global Growth of Live Streaming Apps Among Top 25 Apps



Source: data.ai Note: Downloads and Consumer Spend across iOS, Google Play; China is iOS only.

Time spent is Android phones only



SOCIAL

TikTok's Rocket Ship Growth: YoY Growth At 45% in Brazil

<u>TikTok</u> was a standout winner in per user engagement among the top 5 social apps commanding the most time spent in 2021, with YoY growth as high as 75% in some regions.

It is notable that *TikTok* has seen the greatest in depth of engagement over 4 years and had a standout year in 2021 with average time per user in Brazil at 20.2 hours per month, off the back of an already record-breaking 2020, up 105% from 6.8 hours in 2019 to 14 hours per user each month.

Meta properties in India benefited from the *TikTok* ban in 2021, with engagement deepening in both *Facebook* and *Instagram* by 15% and 35% respectively.

Explore evolving engagement patterns, including average time spent, demographic base and cross-app usage of top players to monitor how they are carving out mindshare in 2022 and beyond.

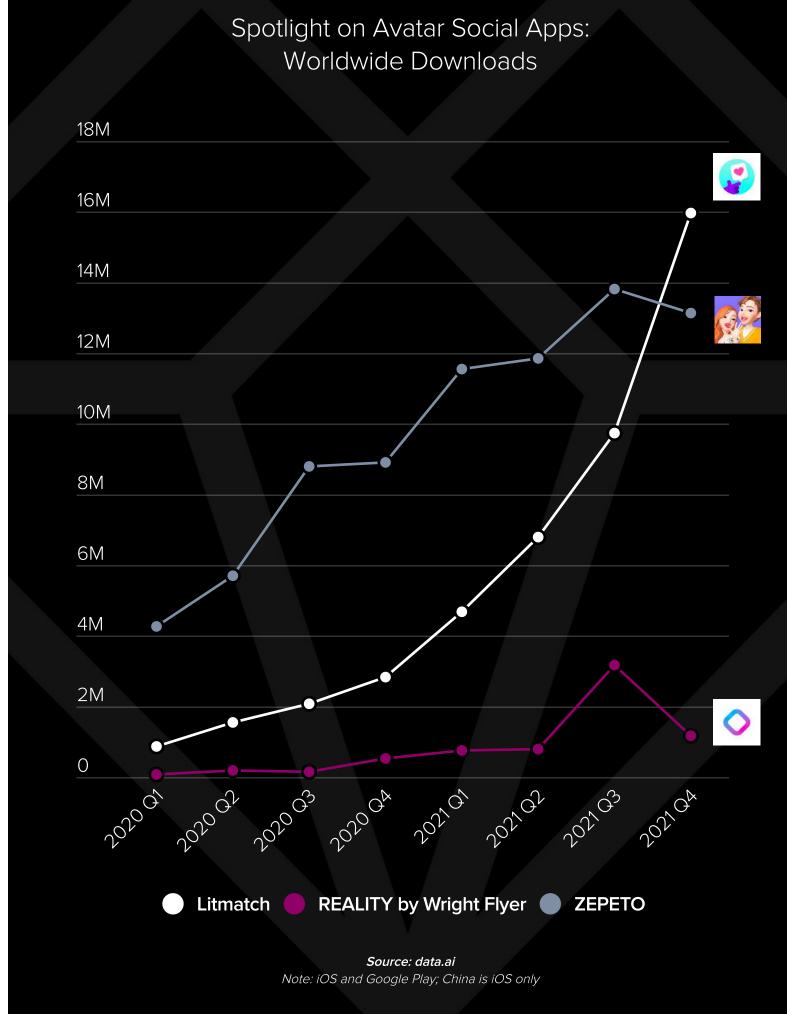
SOCIAL

Emerging Trend: Avatar Apps Tap Into Increasing Demand for Metaverses: Social, User-Generated Content, Creativity

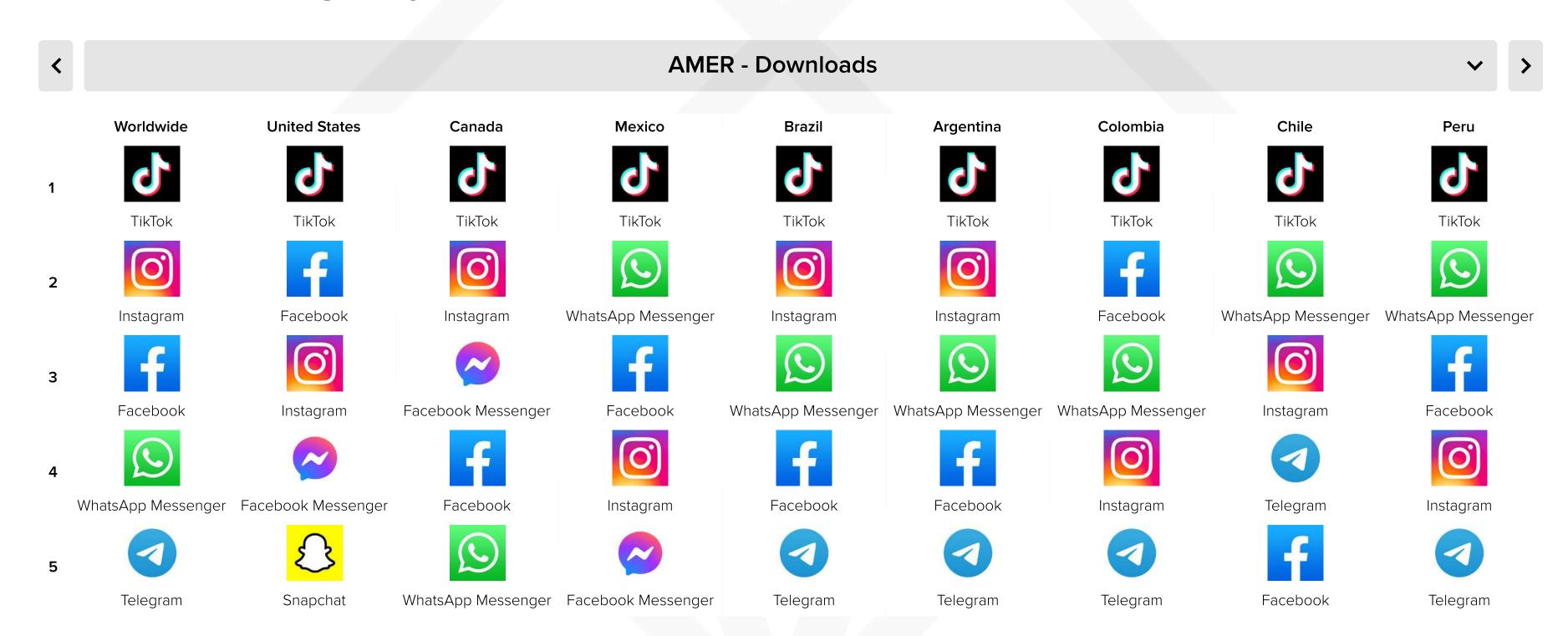
Demand for avatar social apps has grown amidst interest in metaverses in 2021, particularly H2.

Among the 3 select avatar social apps including <u>Litmatch</u>, <u>REALITY by</u> <u>Wright Flyer</u> and <u>ZEPETO</u>, downloads grew 160% YoY. <u>Litmatch</u> emphasizes matching with friends and using a simple avatar — highlighting the overlap of growing demand for avatar-based apps, even without a metaverse component — 2 converging trends. <u>Litmatch</u> saw downloads grow 405% YoY amidst surging demand.

Creativity, creation and connection are at the core of growing interests in 2022. Mobile is the pulse of the cultural zeitgeist. Monitor rising stars to be among the first to capture shifts in these trends.



2021 Rankings by Market | Social



Learn More: Uncover the <u>Top Social Apps by Yearly Downloads</u>

Source: data.ai Note: Combined iOS and Google Play; China is iOS only; Market-level rankings; Excluding dating apps

Travel

DiDi as a global leader in ride-hailing services, continues to grow rapidly in international markets in providing affordable ride-hailing and food delivery services in 2021. data.ai is an integral analytics platform for our marketing planning process. With its trusted mobile insights covering the app landscape we are better equipped to optimize our user acquisition, retention and engagement programs. It also helps us prioritize our roadmap and plan new markets entry.

Ajay Kaul Global Performance Marketing Head DiDi



Downloads of Travel Apps Reached 97.5 Million in Brazil in H2 2021

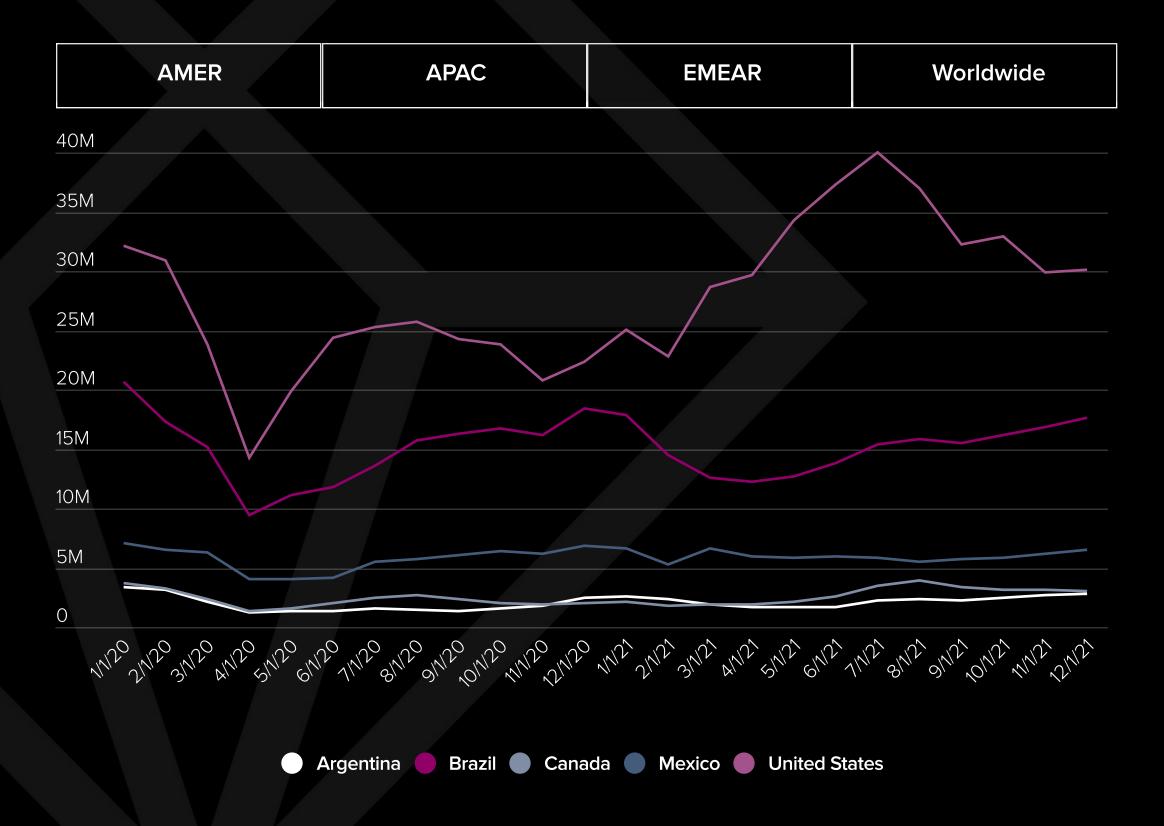
The second half of 2021 showed positive trends for travel on mobile. H2 2021 downloads hit 1.95 billion worldwide, nearing pre-pandemic levels of 2.08 billion in H2 2019.

In Brazil, Travel app downloads hit 97.5M in the second half of 2021, a marginal increase from 96.9M downloads in H2 2020. July was a critical month for many regions. Downloads in Brazil reached 15.4M in July 2021, a 15% increase YoY.

Several countries in Europe saw strong rebound rates in H2 2021 after loosening shelter-in-place restrictions and travel regulations. In fact, travel growth increased so steeply over the peak summer season that downloads in Germany, Turkey, and India were up 7%, 22%, and 5% compared to H2 2019, respectively.

<u>Identify the top apps driving growth</u> within the Travel & Navigation market.

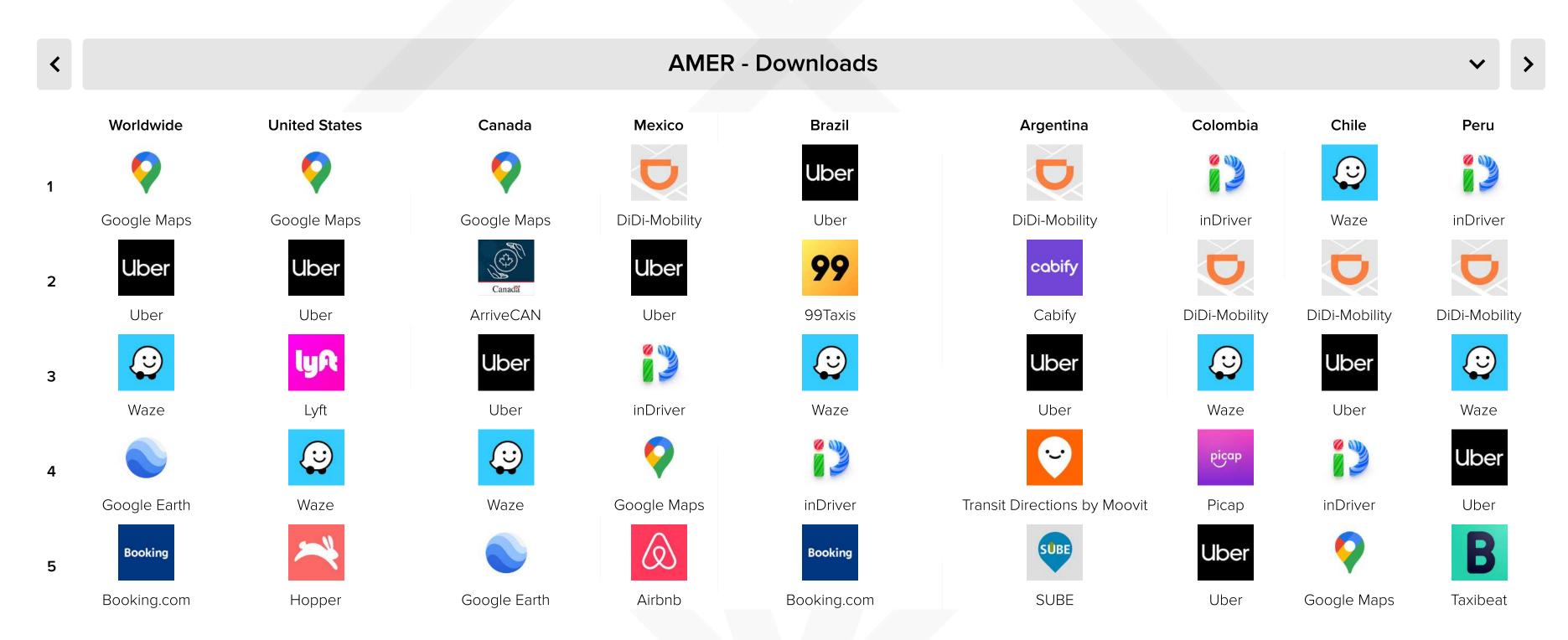
Monthly Downloads of Travel & Navigation Apps



Source: data.ai

Note: iOS and Google Play; China is iOS only

2021 Rankings by Market | Travel



Learn More: Uncover the <u>Top Travel Apps by Yearly Downloads</u>

Source: data.ai Note: Combined iOS and Google Play; China is iOS only; Market-level rankings

Dating

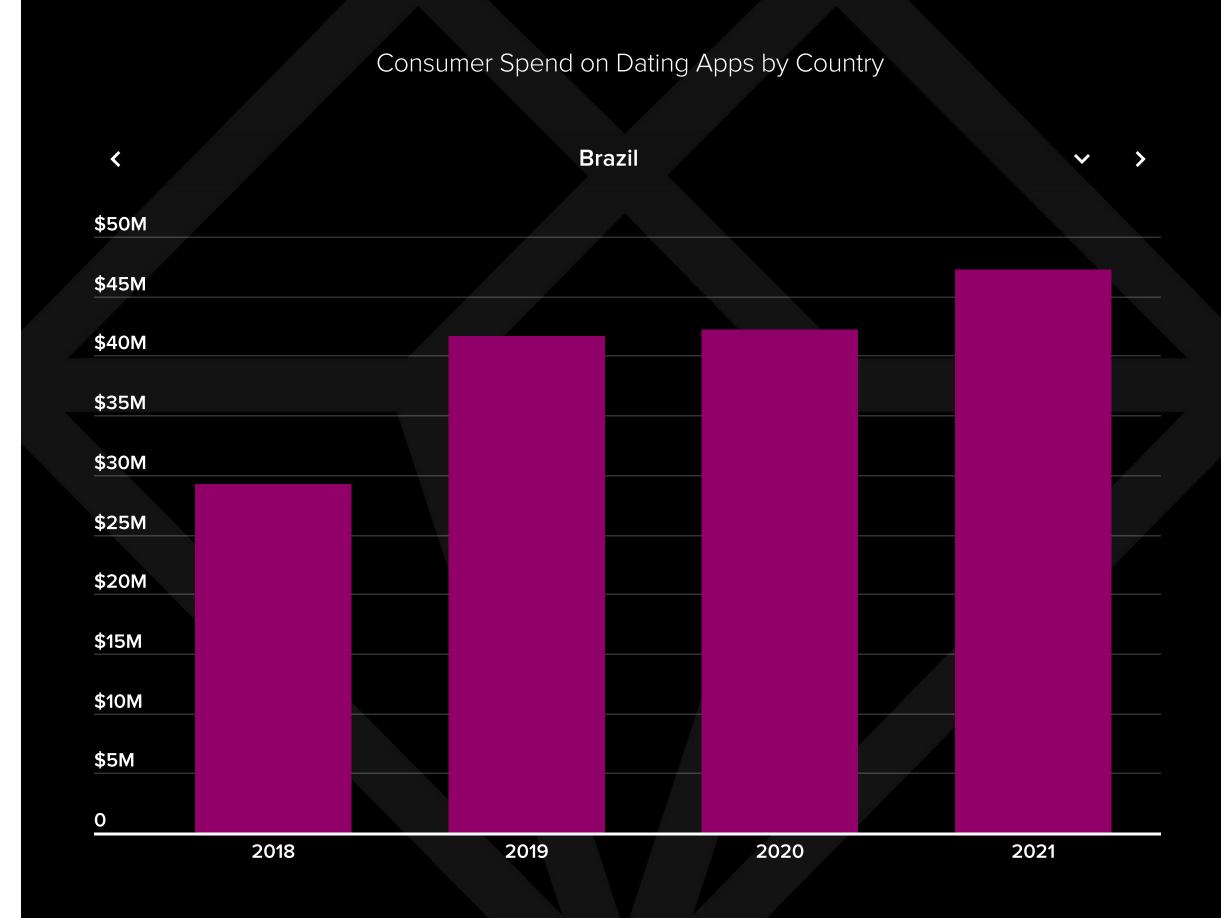
DATING

Worldwide Consumer Spend on Dating Apps Surged Past \$4B in 2021, With \$47M Coming From Brazil

The unabated growth in consumer spend was primarily driven by the US, Japan, the UK and China, the four largest markets in 2021.

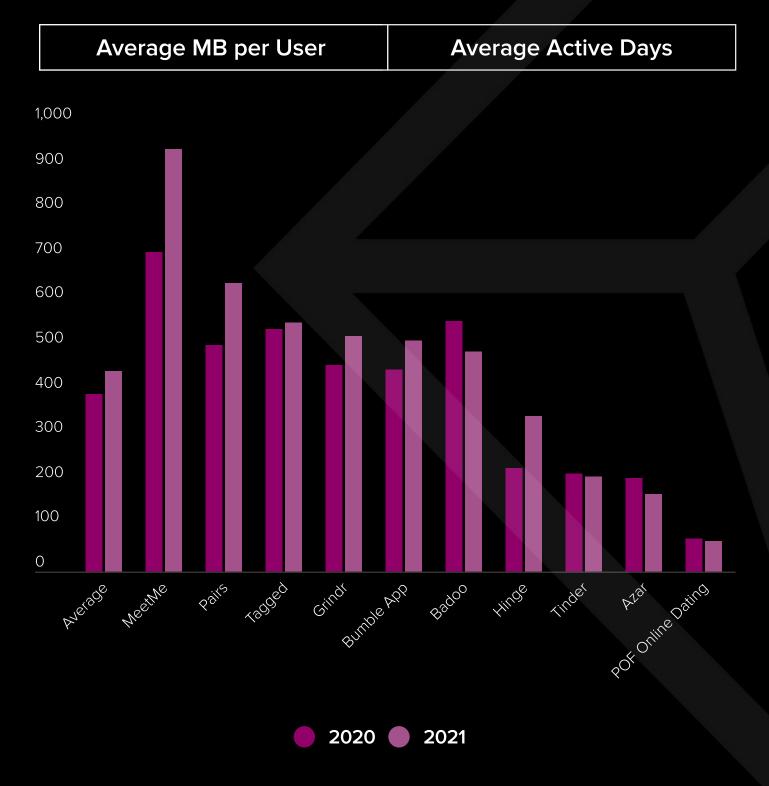
For the US, Germany, Indonesia, and Japan, consumer spend more than doubled since 2018. Brazil was another region that saw strong growth in consumer spend on dating apps, up 62% since 2018. Top apps driving growth in spend include <u>Tinder</u>, <u>The Inner Circle</u>, <u>Badoo</u>, and <u>Bumble</u>.

It is important for dating app publishers to know their primary KPIs early, whether it is maximizing user acquisition or revenue. See how dating apps metrics changed year-over-year in data.ai.



Source: data.aiNote: Consumer Spend across iOS, Google Play

Monthly Avg Active Days vs Data Usage per User Among Top 10 Dating Apps Worldwide by Consumer Spend in 2021



Source: data.ai Note: Android phones only; Average active days per month; "Average Sessions per User represents the average number of sessions per active user in a given month throughout year. Average Active Days represents the average days of use across all active users in a given month throughout vear.

DATING

Among the Top 10 Dating Apps Worldwide by Consumer Spend, Most Apps Saw an Increase in Usage Two Years Into the Pandemic

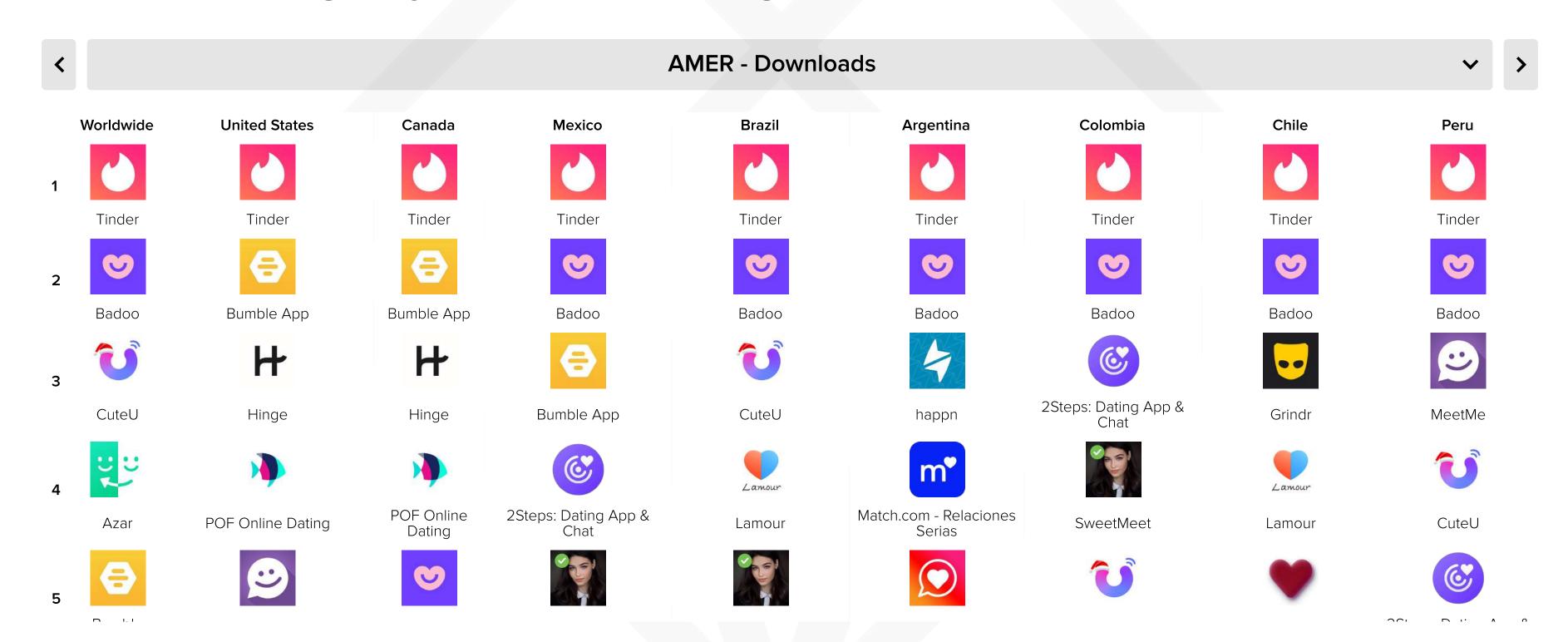
The top grossing dating apps also tended to have high average MB per user, signalling the rising popularity of using photos and videos to communicate. However, higher usage does not always correlate with higher consumer spend.

<u>Tinder</u> saw a slight decline in average MB per user but saw a record-breaking \$1.35B in consumer spend worldwide in 2021, maintaining its lead thanks to a 35% increase YoY.

Tinder's pricing model works well among its large user base, with its free-to-use model that charges users for extra features such as Boosts and Super Likes included in in-app subscriptions and purchases. It even <u>dynamically adjusts its price based on the user's age</u> - a proxy for demand.

Understanding each dating app's target audience and user behavior is crucial to its success. <u>Explore engagement and monetization strategies</u> in data.ai.

2021 Rankings by Market | Dating



Learn More: Uncover the <u>Top Dating Apps by Yearly Downloads</u>

Source: data.ai Note: Combined iOS and Google Play; China is iOS only; Market-level rankings

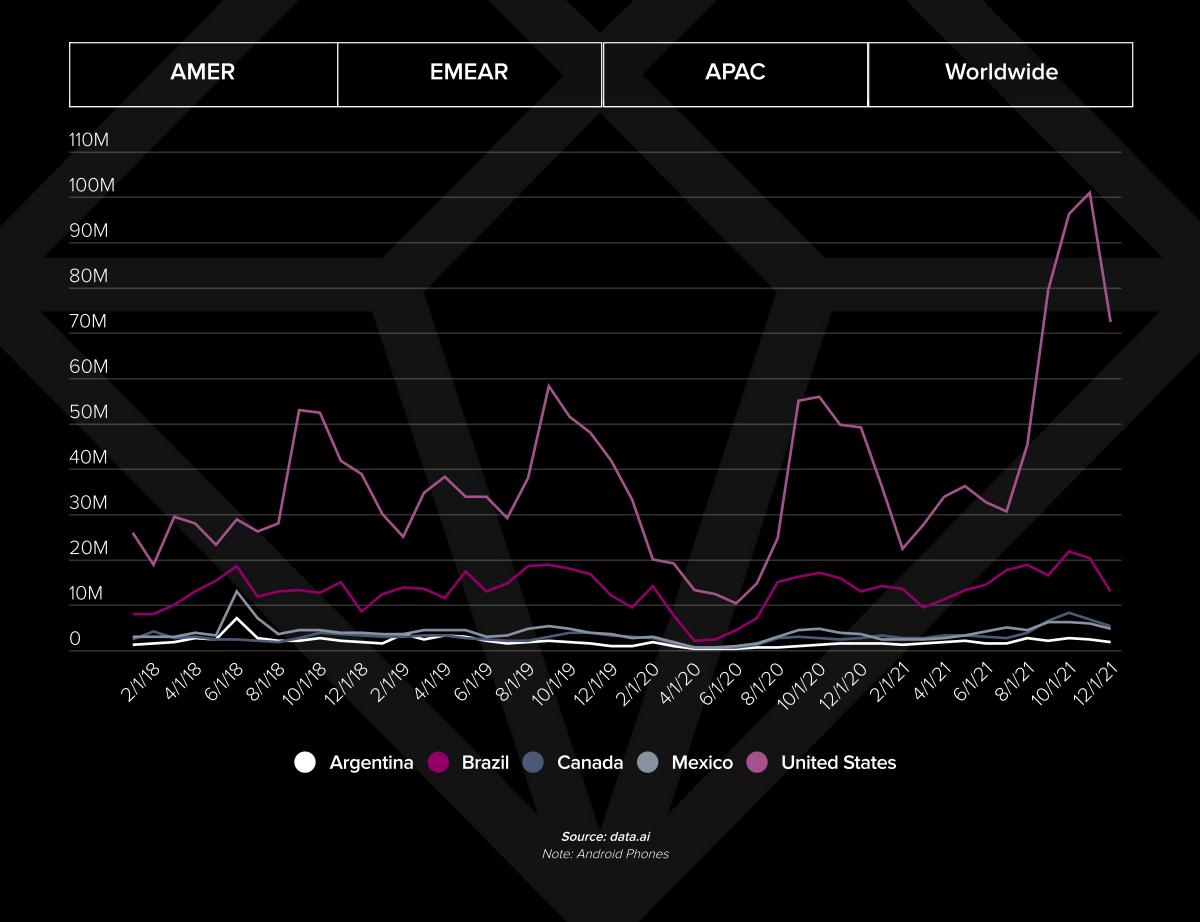
Other Industries Embracing Mobile

data.ai continues to be one of our most trusted tools and partners, helping us keep an eye on market trends and competitive benchmarks. Marketability from the game concept stage is a pivotal strategic pillar at Rovio, so we continue to work closely with data.ai on new features that help us in identifying market opportunities.

Luis de La Camara VP Marketing Rovio



Hours Spent in Sports Apps



SPORTS

Sports Rebounded in 2021: Tokyo Olympics & Return of Live Sports Drives Mobile Streaming

Hungry for new content, eyes returned to sports in 2021. The UEFA Euro Tournament, the return of NFL and fantasy football in the US and the Cricket World Cup in APAC were in high demand following a year with delays and limitations on live sports.

Globally time spent in sports apps rebounded 30% from 2020 back to 2019's pre-pandemic levels. Countries seeing the greatest rebounds included: Singapore (+125%), Canada (+125%), Russia (+120%), Argentina (+105%), Indonesia (+90%), Australia (+85%) and the US (+70%). In Brazil, time spent was up +49% vs. 2020.

Monitor shifts in seasonality with data.ai. Benchmark your app against market trends to see if you are in-line with, out-pacing or falling behind the market.

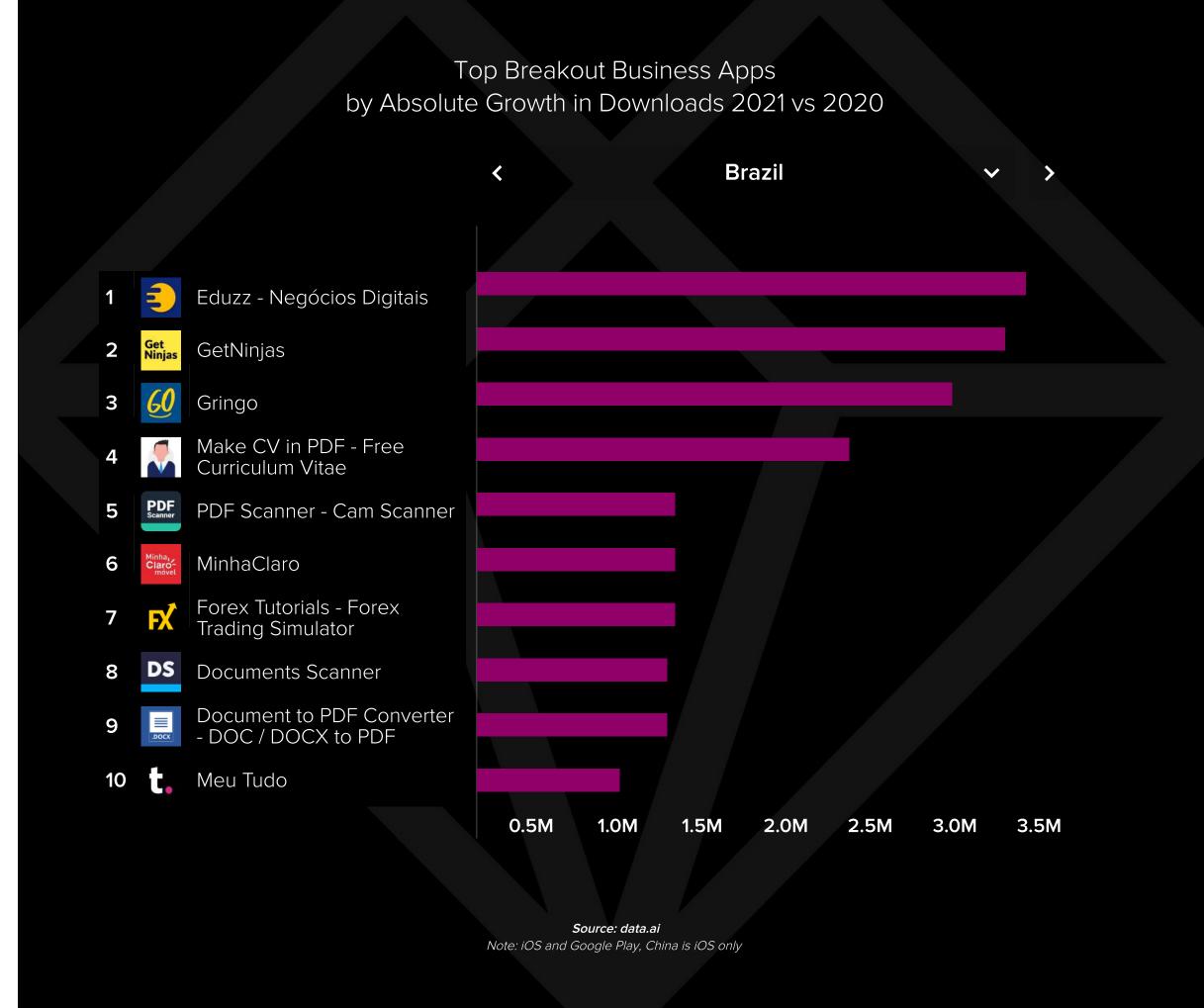
BUSINESS

Recession? Brazilians find income alternatives through Delivery Apps

Job searching platforms like Sobic, and Apna were the #1 breakout apps by downloads in the UK and India, respectively. In Brazil, an app for making CVs ranked #4 by breakout downloads - indicating that Brazilians are optimising their time with apps that generate CVs during a new job search.

Working for themselves: delivery driver apps like Ifood para Entregador (38% yoy increase in Brazil), Deliveroo Rider (#7 breakout app in the UK) and Baemin Riders (#3 in South Korea) saw record levels of demand. Apps to empower individuals to earn extra money or work for themselves, like Whatsapp for Business (#1 Worldwide) and GetNinjas in Brazil (#2) also saw standout growth in demand as consumers turned to mobile for career freedom.

Monitor how consumer behavior manifests on mobile with data.ai. Uncover opportunities, meet your customer needs and identify nascent trends before your competitors.



Top Apps & Games

2021 was a very interesting year with new privacy rules on iOS, changes in app store creatives moderation policy, and the emergence of new big players in the market of app promotion — representing a challenge for the industry as a whole and for us in particular. We're fortunate that we don't have to solve these industry headwinds alone, but in partnership with data.ai.

Petr Abroskin
CMO Search and Portal
Yandex



2021 Rankings by Market | Top Apps

| < | | | | | Brazil | | | | | ~ |
|--------------------------|-----------------------|---|----|---------------|------------------|--|----|-------|-----------------------------|--|
| DOWNLOADS | | | | NSU | MER SPEND | | MC | HTM | LY ACTIVE USERS | |
| 1 | TikTok | Short Videos (Entertainment) | 1 | globo play | Globo Play | OTT (Entertainment) | 1 | | WhatsApp Messenger | Communication (Social Media) |
| 2 \$ | Shopee | E-Commerce (C2C) (Shopping) | 2 | DISNEP+ | Disney+ | OTT (Entertainment) | 2 | f | Facebook | Social Networks (Social Media) |
| 3 % | Kwai | Short Videos (Entertainment) | 3 | 1 | Google One | File Management (Utility & Productivity) | 3 | O | Instagram | Media Sharing Networks (Social Media) |
| 4 | Instagram | Media Sharing Networks (Social Media) | 4 | | Tinder | Dating (Social Media) | 4 | | Facebook Messenger | Communication (Social Media) |
| 5 | WhatsApp Messenger | Communication (Social Media) | 5 | | YouTube | Video Sharing (Entertainment) | 5 | 4 | TikTok | Short Videos (Entertainment) |
| 6 nu | Nubank | Mobile Banking (Finance) | 6 | 4 | TikTok | Short Videos (Entertainment) | 6 | N | Netflix | OTT (Entertainment) |
| 7 S | SHEIN | E-Commerce (Brand Retailer) (Shopping) | 7 | Canva | Canva | Poster & Card Design (Graphic & Design) | 7 | | MercadoLibre | E-Commerce (C2C) (Shopping) |
| 8 f | Facebook | Social Networks (Social Media) | 8 | | Crunchyroll | OTT (Entertainment) | 8 | | Spotify | Music & Audio (Entertainment) |
| 9 | Resso | Music & Audio (Entertainment) | 9 | HB@ | НВО Мах | OTT (Entertainment) | 9 | Uber | Uber | Transportation (Travel) |
| 10 p [®] | PicPay | Digital Wallets & Payment (Finance) | 10 | © | YouTube Music | Music & Audio (Entertainment) | 10 | ifood | iFood Delivery de Comida | Food Delivery & Carryout (Food & Drink) |

Learn More: Uncover the Most Popular Apps By Market

Source: data.ai Note: Downloads and consumer spend based on combined iOS App Store and Google Play. MAU based on Combined iPhone and Android Phone Monthly Active Users; Excluding pre-installed Apps. Market-level rankings

2021 Rankings by Market | Top Games

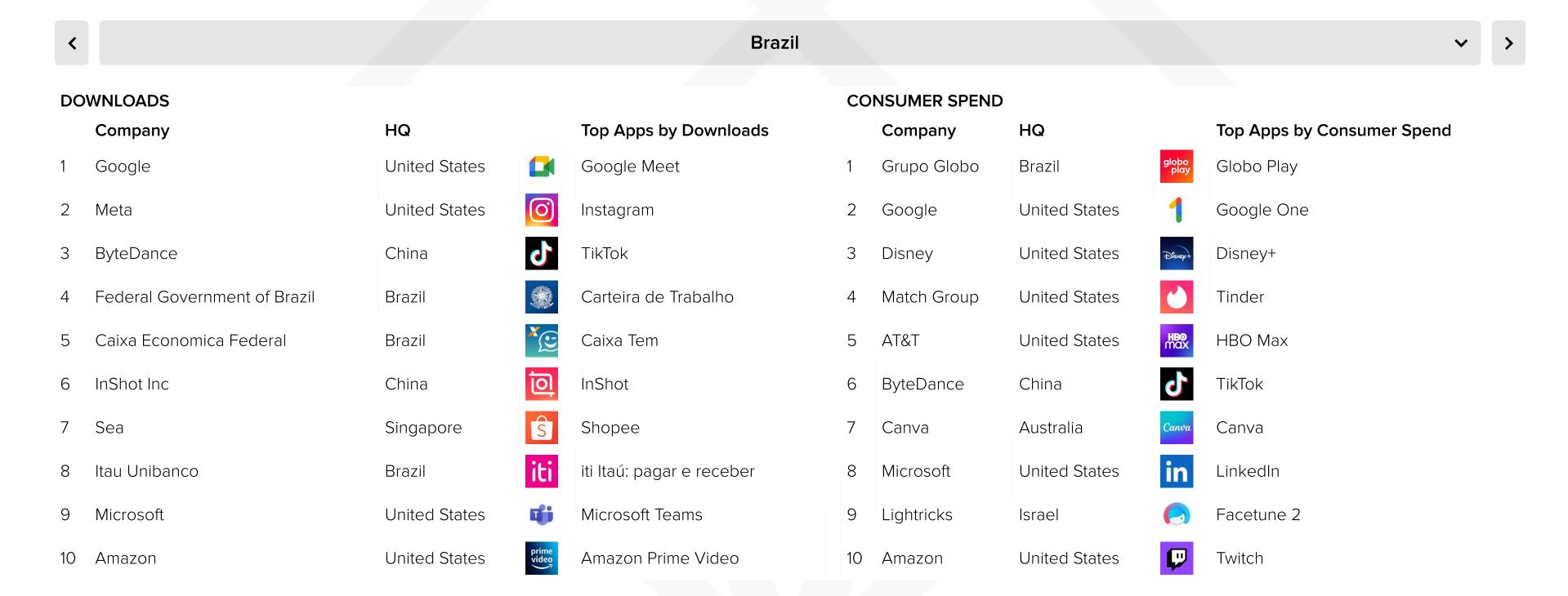
| | | | | | Bidzii | | | | | · | | | |
|-----------|------------------------------|-------------------------------|----|----------------|---------------------------------|----------------------------------|----|-----------|-----------------------------|----------------------------------|--|--|--|
| DOWNLOADS | | | | CONSUMER SPEND | | | | | MONTHLY ACTIVE USERS | | | | |
| 1 | Free Fire | Battle Royale (Shooting) | 1 | 6 | Free Fire | Battle Royale (Shooting) | 1 | | ROBLOX | Creative Sandbox (Simulation) | | | |
| 2 | 2 ROBLOX | Creative Sandbox (Simulation) | 2 | | Coin Master | Luck Battle (Party) | 2 | 3 | Free Fire | Battle Royale (Shooting) | | | |
| 3 | B Coin Master | Luck Battle (Party) | 3 | D A | ROBLOX | Creative Sandbox (Simulation) | 3 | MINECRÄFY | Minecraft Pocket Edition | Creative Sandbox (Simulation) | | | |
| 4 | Craftsman: Building Craft | Creative Sandbox (Simulation) | 4 | GALL-DUTY | Call of Duty: Mobile | Team Deathmatch (Shooting) | 4 | | Among Us! | Mafia/Betrayal (Party) | | | |
| 5 | 8 Ball Pool | Simulation Sports (Sports) | 5 | | Lords Mobile | 4X March-Battle (Strategy) | 5 | | Candy Crush Saga | M3-Saga (Match) | | | |
| 6 | S PK XD | Avatar Life (Simulation) | 6 | | Candy Crush Saga | M3-Saga (Match) | 6 | | PK XD | Avatar Life (Simulation) | | | |
| 7 | Subway Surfers | Runner (Action) | 7 | | League of Legends: Wild Rift | MOBA (Action) | 7 | | Brawl Stars | Brawl (Action) | | | |
| 8 | Among Us! | Mafia/Betrayal (Party) | 8 | | Brawl Stars | Brawl (Action) | 8 | | Coin Master | Luck Battle (Party) | | | |
| Ç | Magic Tiles 3 | Music (Hypercasual) | 9 | | Rise of Kingdoms | 4X March-Battle (Strategy) | 9 | 0 | Pokémon GO | Location RPG (RPG) | | | |
| 1 | 0 Hair Challenge | Action (Hypercasual) | 10 | | PUBG MOBILE | Battle Royale (Shooting) | 10 | 30 | Clash Royale | Summon-Battle (Strategy) | | | |

Brazil

Learn More: Uncover the Most Popular Games By Market

Source: App Annie Intelligence Note: Downloads and consumer spend based on combined iOS App Store and Google Play. MAU based on Combined iPhone and Android Phone Monthly Active Users; Excluding pre-installed Apps. Market-level rankings

2021 Rankings by Market | Top Companies - Apps



Learn More: Uncover the Top Apps Publishers Across Different Markets

Source: data.ai Note: Combined iOS and Google Play; China is iOS only; Market-level rankings

2021 Rankings by Market | Top Companies - Games

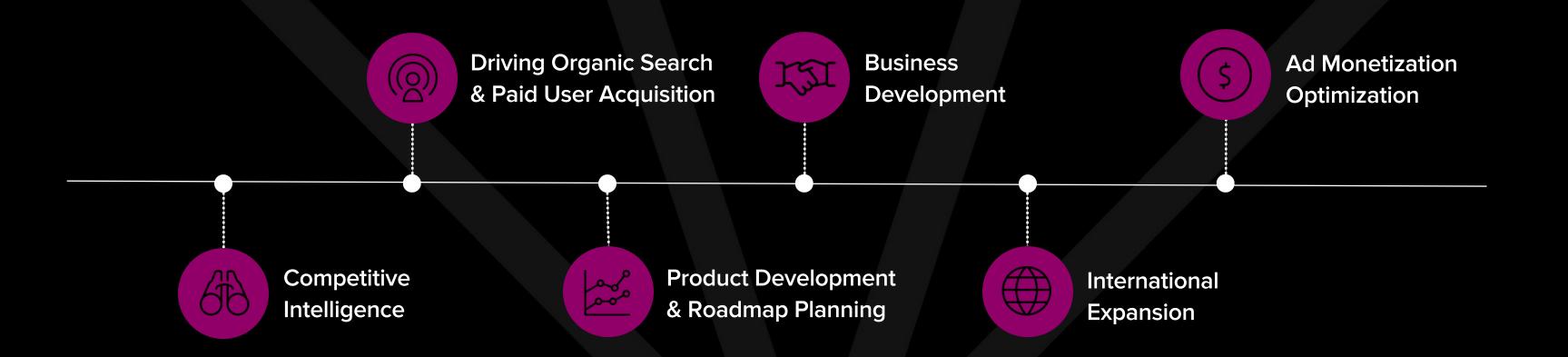
Brazil **DOWNLOADS CONSUMER SPEND** HQ Top Games by Downloads HQ Top Games by Downloads Company Company **United States** Project Makeover Singapore Free Fire Sea AppLovin Fat 2 Fit Coin Master Voodoo France Moon Active Israel Call of Duty: Mobile Stack Ball Azur Interactive Games Cyprus Activision Blizzard **United States** League of Legends: Wild Rift Phone Case DIY Tencent China Crazy Labs Israel Prison Escape: Stickman Story **ROBLOX** OneSoft Roblox **United States** Vietnam DOP 2: Delete One Part Supercell **Brawl Stars** SayGames Belarus Finland Bridge Race Gardenscapes - New Acres Playrix ironSource Israel Ireland Baby Panda World BabyBus China 8 IGG China Lords Mobile Rise of Kingdoms My Talking Tom Friends Jinke Culture - Outfit7 China Lilith China **United States** Hair Challenge **United States Empires & Puzzles** Zynga Zynga

Learn More: Uncover the Top Games Publishers Across Different Markets

Source: data.ai Note: Combined iOS and Google Play; China is iOS only; Market-level rankings

APP ANNIE

We Fuel Mobile Excellence & Monetization



Disclaimer

data.ai is a mobile market estimate service provider. data.ai is not registered in any investment advisory capacity in any jurisdiction globally, and does not offer any legal, financial, investment or business advice. Nothing contained in this communication, or in any data.ai products, services, communications, or other offerings, should be construed as an offer, recommendation, or solicitation to buy or sell any security or investment, or to make any investment decisions. Any reference to past or potential performance is not, and should not, be construed as a recommendation or as a guarantee of any specific outcome. You should always consult your own professional legal, financial, investment and business advisors. Additionally, by providing the information herein, data.ai does not make any representations or warranties and does not undertake any legal or contractual obligations whatsoever. No liability may accrue to data.ai as a result of providing this information to you.

View Report Methodology



Request a Demo Today

data.ai