Mobile app trends: 2024 edition

A global benchmark of app performance

ADJUST × APPLOVIN

Contents

INTRODUCTION

Stability and consistency in the developing mobile app marketing landscape

The digital marketing space has evolved dramatically. App advertisers and developers have continued to face new and ongoing challenges that bring increased complexity to finding the right audiences and converting them effectively. A myriad of exciting avenues and opportunities, however, have contributed to the continued acceleration of growth within our industry, which has unequivocally confirmed its resilience. In 2023, mobile ad spend grew by 8% to $362 billion, the market reached a value of USD$228.98 billion—a figure projected to rise to $567.19 billion by 2030—and mobile apps are expected to become a half a trillion dollar industry in 2024 in terms of revenue.

To formulate a successful growth strategy in the modern mobile ecosystem, app marketers are tasked with diversifying channels, finding the right media mix, adapting to the transformative nature of user behavior and expectations, and harnessing the power of next-generation technologies. Getting each of these crucial components right isn't always easy, and the inevitable waves of change and adaptation are not set to slow down. Forming the requisite mindset and onboarding the right tools are essential to establishing a framework of stability and consistency amid this constant development, in 2024 and well beyond.

Regardless of how and when new channels and sources enter your mix, or whether new data privacy regulations are enforced, the questions for marketers remain the same: How do I know where to allocate budget? Where will I get the best return on investment? How can I continue impactful campaign optimization?
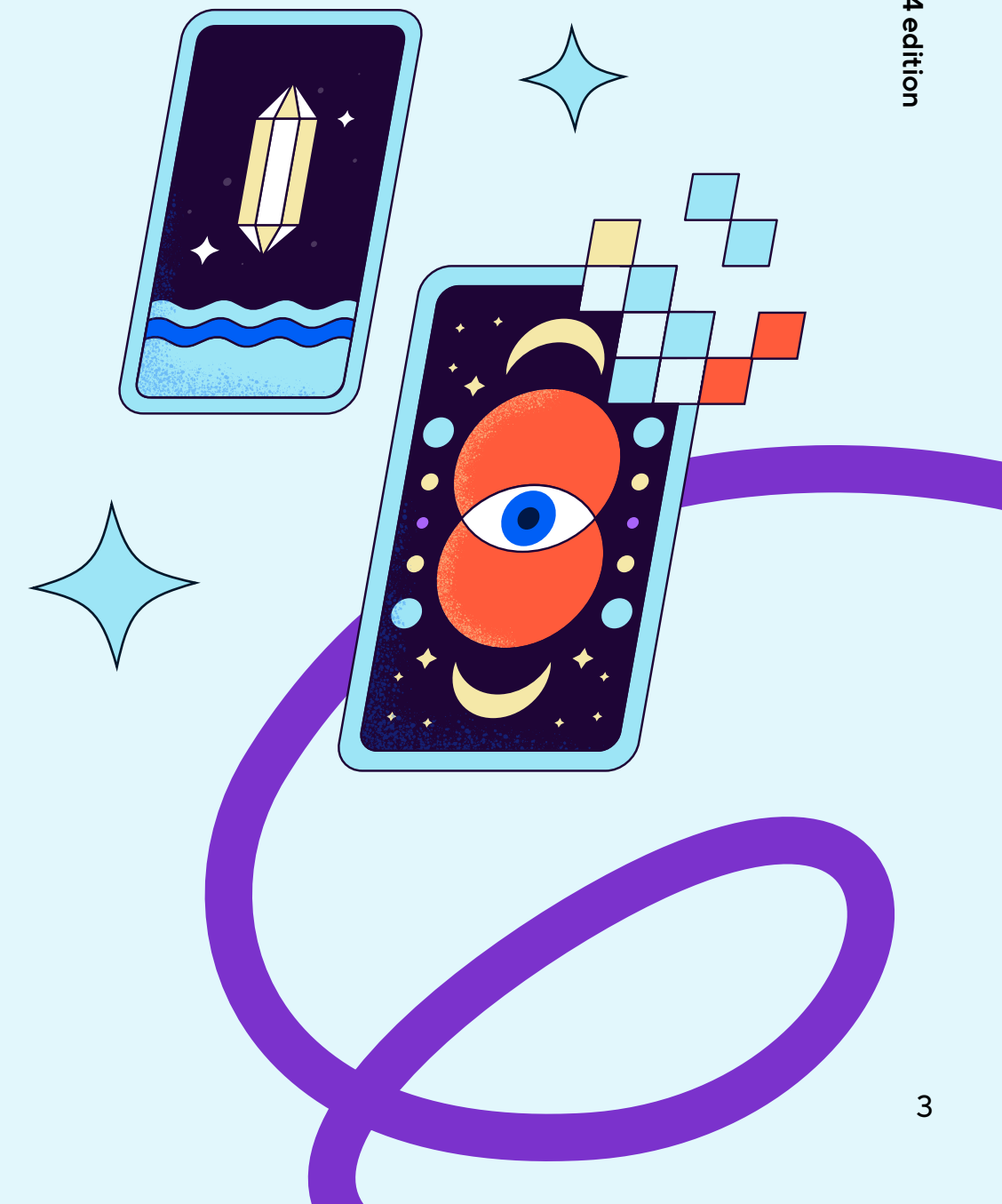
With fragmented data sources and types, air-tight measurement and predictive analytics are the fundamental building blocks on which a stability-driven strategy will be built now and moving forward, ushering in consistency to an otherwise disjointed, cross-channel landscape.

> **...air-tight measurement and predictive analytics are the fundamental building blocks on which a stability-driven strategy will be built...**

Mobile app trends 2024 deep-dives into actionable Adjust data, benchmarks, and insights, coupled with analysis and expertise from AppLovin. As always, this report provides marketers and developers with the information needed to make tactical decisions and build a strategy that outpaces the competition.

Global app installs 2022 - 2023
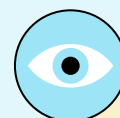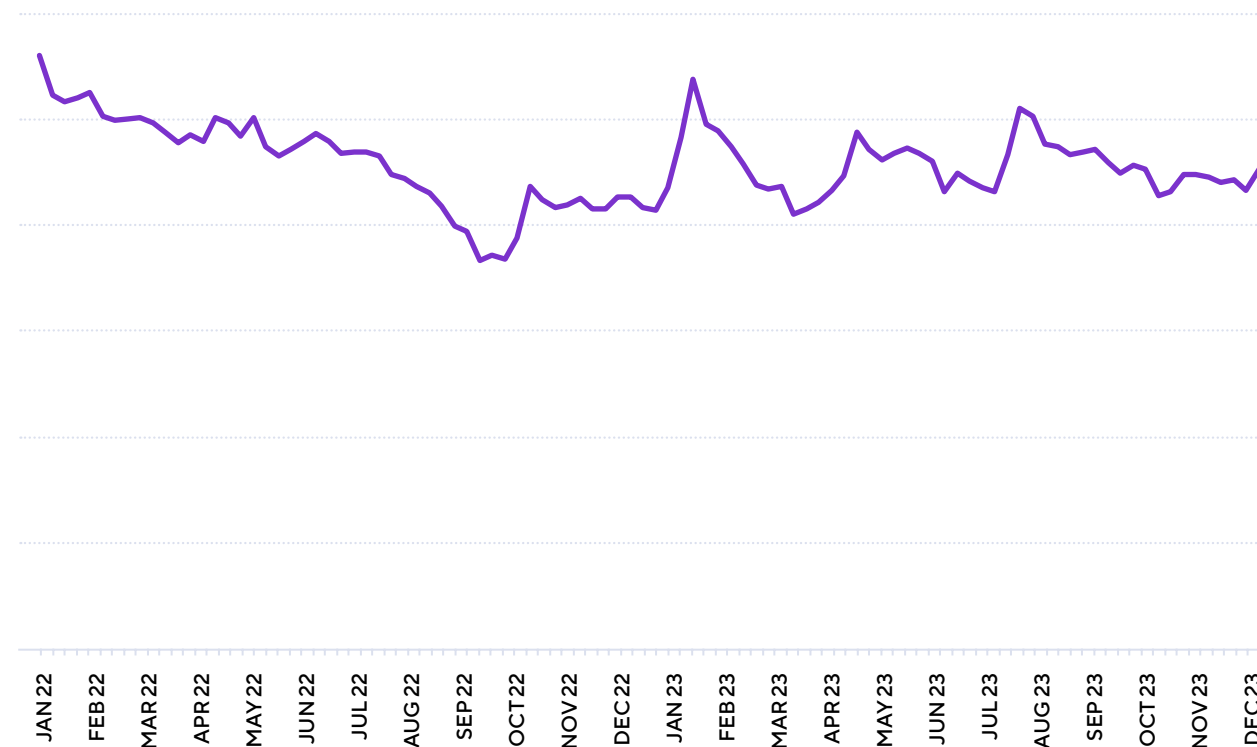
Adjust data reveals that, following a downward trend throughout 2022, mobile app installs grew globally in 2023, with Q4 up 4% YoY.

PRIVACY, MEASURABILITY, CREATIVE ADVANCEMENTS

Emerging technologies and AI-driven personalization to change more than just the game

As investment in AI inevitably continues to soar ([55% of C-level executives worldwide consider it a leading concern](#)), embracing its full potential will become a cornerstone of mobile marketing systems and strategy development in 2024. Savvy growth marketers have already harnessed AI's power to enhance decision-making processes related to campaign setup, analysis, and optimization, facilitating smarter and quicker outcomes. Every partner in a marketer's tech stack, including your MMP, should be demonstrating, without ambiguity, the mechanisms they're employing to prioritize AI capabilities that drive your growth and success.

Personalization is a key area that will see AI-powered evolution in 2024. Long-term user retention is a critical factor for sustained ROI in the app industry, and as the emergence of gaming's hybrid casual genre has demonstrated, the strategic incorporation of personalization to a game's UX can dramatically boost retention rates and revenue—in 2024, hybrid casual is poised to surpass the [$2.1 billion](#) in revenue it achieved in 2023. Verticals like e-commerce and finance should adopt a similarly data-centric and AI-driven approach to the gaming sector. Just as AI can segment users to customize and calibrate individual game progression, e-commerce and finance apps can tailor in-app experiences to their own specific segments, cohorts, and UX flows to increase retention and conversion. This kind of ingenuity is a game changer—but it's not limited to gaming.
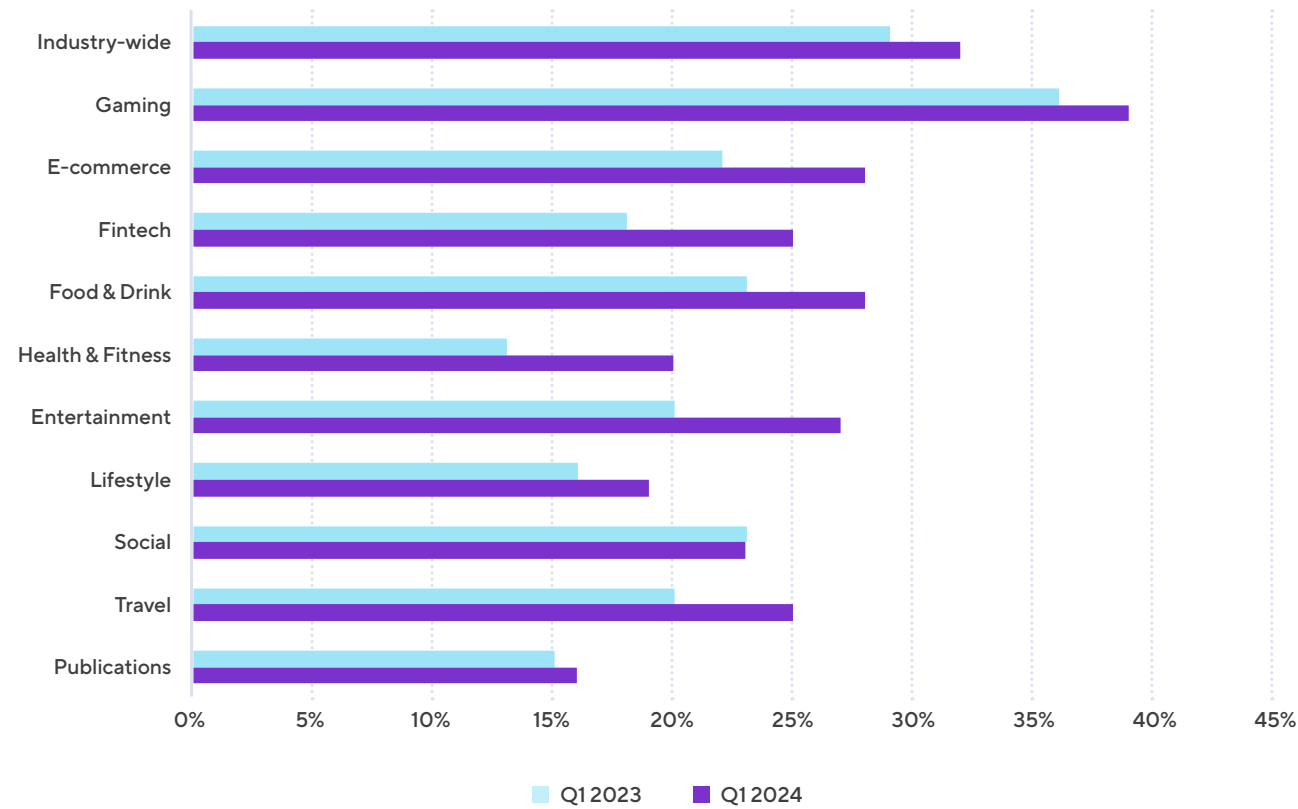
This focus on personalization should start from the initial ad impression through onboarding (where ATT opt-in rates can also be driven up), and deep into app UX, from game levels to product pages or the core features of your app.
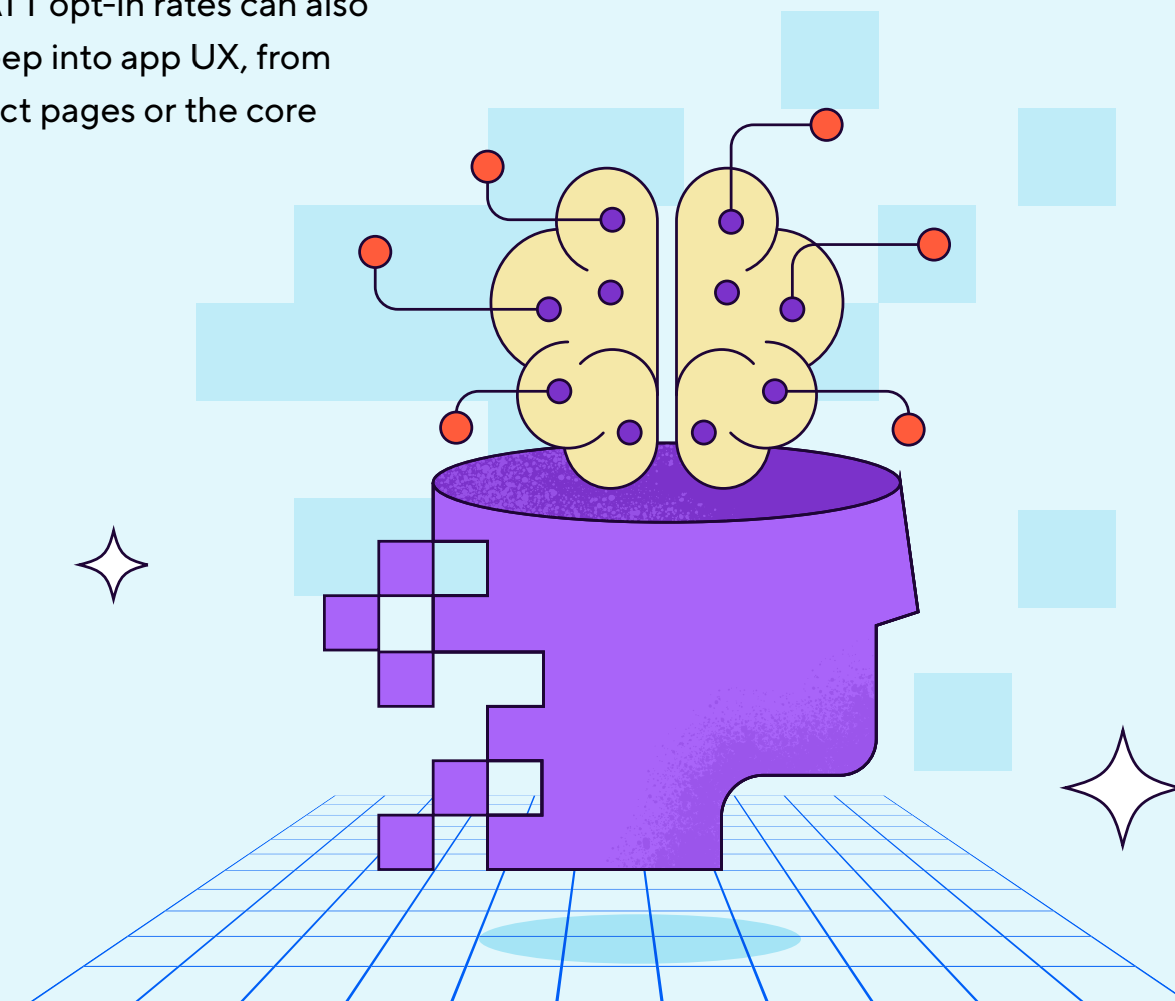
ATT opt-in update

Speaking of App Tracking Transparency, let's take a look at how rates changed globally across app verticals throughout 2023. Since ATT's enforcement with the rollout of iOS 14.5 in April of 2021, we've seen opt-in rates gradually climb as marketers have improved in communicating the value-add of consented data sharing and as users have come to better understand what the prompt is even referring to. Opt-in rates once again climbed across the board in 2023, with the industry-wide rate up from 29% to 32%. Gaming has the highest rate globally (39%) and fintech and e-commerce had the biggest jumps at 7 percentage points each.

ATT opt-in rates Q1 2024 vs. Q1 2023 (Global)

Bar chart comparing Q1 2023 and Q1 2024 opt-in rates by vertical: Industry-wide, Gaming, E-commerce, Fintech, Food & Drink, Health & Fitness, Entertainment, Lifestyle, Social, Travel, Publications. X-axis from 0% to 45%. Legend: Q1 2023, Q1 2024.

New channels to central channels

We talk a lot about the importance of new channels and the strategic necessity of creating a healthy media mix. AppLovin and Adjust are both huge advocates for connected TV (CTV) as an essential component of a marketing strategy that reaches high quality audiences and provides cross-channel uplift. As CTV transforms into the digital hub of households, we expect to see the emergence of even more robust opportunities to connect advertisers to consumers. CTV is becoming a *central* performance channel, with the transition from cable to streaming continuing its march.

New channels like PC and console will become the next frontier for advertisers, particularly those in the gaming space. It's the marketers who enthusiastically tackle these new opportunities to find audiences— and measure them with precision from day one—who will stay ahead of the curve and see the most impactful results.

Methodology and key takeaways

The methodology

VERTICALS:
Fintech, gaming, e-commerce

REGIONS:
Global, APAC, EMEA, LATAM, North America

DATASET:
A mix of Adjust's top 5,000 apps and the total dataset of all apps tracked by Adjust. Our data comes from two sources, one including a list of 45 countries and one with approximately 250 based on the ISO 3166-1 standard.

DATE RANGE:
January 2022 - January 2024

RATIOS AND SHARES:
Reattribution and paid/organic are both expressed as ratios, where X:1. In the case of the paid/organic ratio, a value of 3 (3:1) would mean that for every 100 paid installs, there are 300 organic installs. Similarly, for the reattribution share, a value of 0.7 (0.7:1) would mean that for every 100 installs, there are 70 reattributions. Stickiness is represented as a percentage, meaning a stickiness ratio (daily active users (DAU) / monthly active users (MAU)) of 0.34 would be represented as 34%.
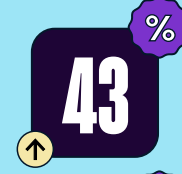
Key takeaways

42% Fintech app installs and sessions grew by 42% and 24% YoY in 2023, respectively.

118% In-app revenue for fintech apps grew 118% YoY in 2023 and month 0 LTV hit $4.45 for iOS and $2.05 for Android.

1.33$ The global median eCPI for e-commerce apps is $1.33, while month 0 LTV is $10.35 for iOS users and $5.85 for Android users.
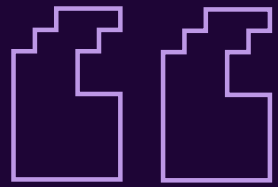
43% E-commerce app installs and sessions grew by 43% and 14% YoY, and stickiness reached 16.1%

7% Gaming app installs bounced back in Q4 2023, up 7% globally, 3% in APAC, 12% in EMEA, 19% in LATAM, and 6% in North America.

**6%** In-app revenue for gaming apps globally grew 6% YoY in 2023.

"Successful and impactful mobile app marketing and campaign optimization doesn't require a crystal ball. By **incorporating predictive analytics into your cross-device and cross-channel marketing efforts, you unlock the data and insights needed to make fast, smart decisions** on budget allocation and the ability to scale confidently. Prioritize building an efficient, next-gen tech stack, and working with partners that actively demonstrate their contribution to your growth."

ADJUST

Simon Dussart

CEO
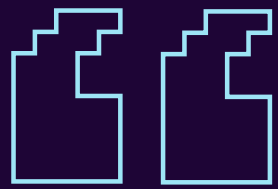
"A focus on foundation sets up businesses for long-term success in any environment. This means **advertisers need to have a growth stack that empowers them to measure what they buy, so they know the exact performance across the wide variety of channels that are out there**, and can act rapidly according to any changes. They also need a process to expand their user acquisition channel portfolio so they can act, add new additions to it, and scale."

APP LOVIN

Andrey Kazakov
VP of Demand
Non-Gaming

PART 1

Finance and fintech apps

Industry stats, trends, and predictions

Top 10 finance apps by downloads 2023 (worldwide)
Powered by data.ai's App IQ Taxonomy

1	**PhonePe** — Digital Wallets & Payment	**6**	**Nubank** — Mobile Banking
2	**Paytm** — Digital Wallets & Payment	**7**	**Binance** — Cryptocurrency Trading
3	**PayPal** — Digital Wallets & Payment	**8**	**Bajaj Finserv** — Personal Loans
4	**Google Pay** — Digital Wallets & Payment	**9**	**DANA** — Digital Wallets & Payment
5	**Alipay** — Digital Wallets & Payment	**10**	**Google Wallet** — Digital Wallets & Payment

Source: data.ai intelligence Note: iOS & Google Play

data.ai
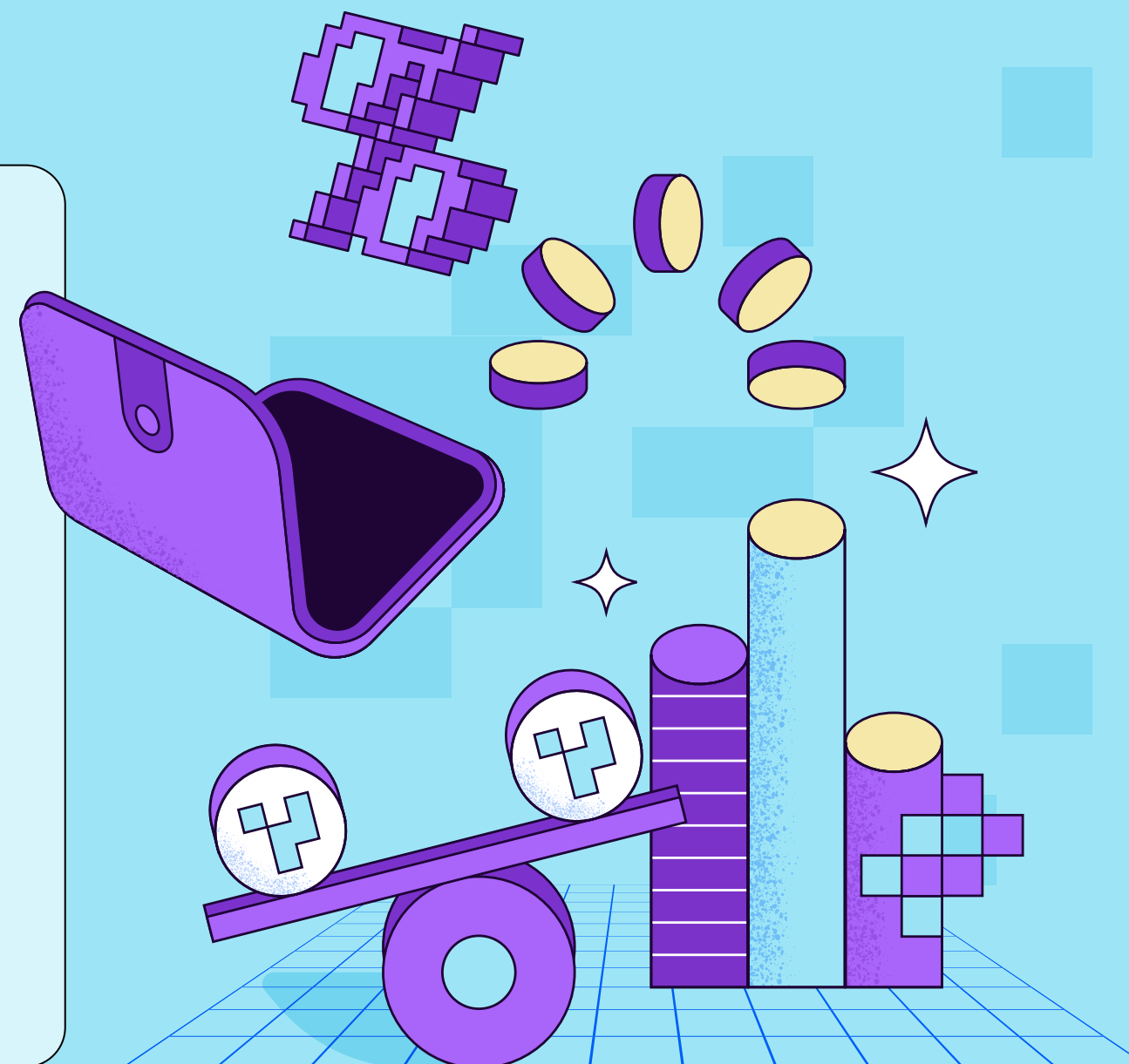
Essential industry roundup
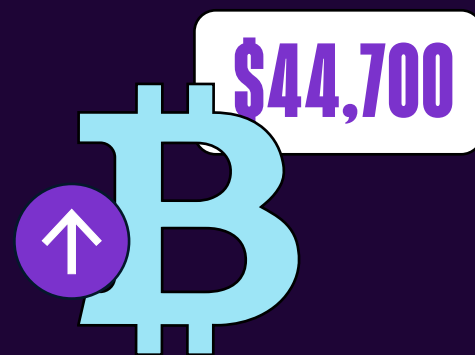
$44,700

The value of a Bitcoin surpassed $44,700 in December 2023, its highest point in over a year.

79%
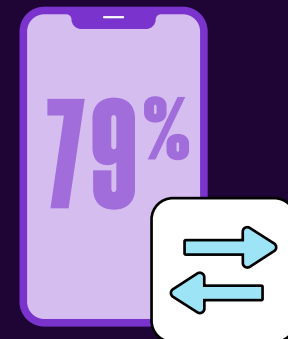
Mobile payments are set to make up 79% of all digital transactions by 2025 and the market is projected to reach a value of $607.9 billion by 2030.

$7 BN

The global mobile banking market is projected to reach a value of $7 billion by 2032, with a CAGR of 16.8% from 2023.

70%
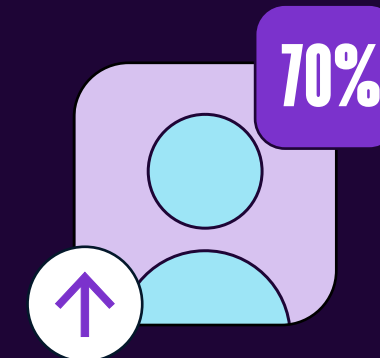
Mobile banking users are growing globally and are expected to surpass 3.6 billion this year, meanwhile, 70% of U.S. users cite mobile banking as their primary means of account management.

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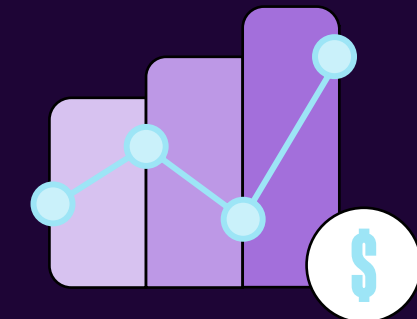
Mobile stock trading is currently valued at $34.98 billion and is expected to grow at a CAGR of 21.1% from 2023 to 2033.

What we're keeping an eye on in 2024: Digital wallets as everyday commerce, real-time cross-border payments, and enhanced mobile banking security.

"In the fintech industry, achieving optimal customer acquisition cost (CAC) efficiency is an important goal. This is because **CAC directly impacts profitability and guides the appropriate allocation of marketing resources**—especially when the ROI is strong—ensuring sustainable growth in a competitive market."

APP LOVIN

Joyce Ye
Director of Non-Gaming

Finding and keeping users

Fintech app installs and sessions both grew YoY in 2023, up an impressive 42% and 24%, respectively. The highest point for installs in 2023 was between April and May, which was up another 28% compared to the yearly average and a huge 95% YoY.

Regionally, the biggest installs uptick was seen in APAC (48%), while the biggest boost in sessions was charted in EMEA (31%). North America was the only region to see decline, dropping 12% in installs and 16% in sessions, which can partially be attributed to the sharp fall in funding for fintechs throughout the year.

Fintech app install and session growth
January 2022 – December 2023 (Global)
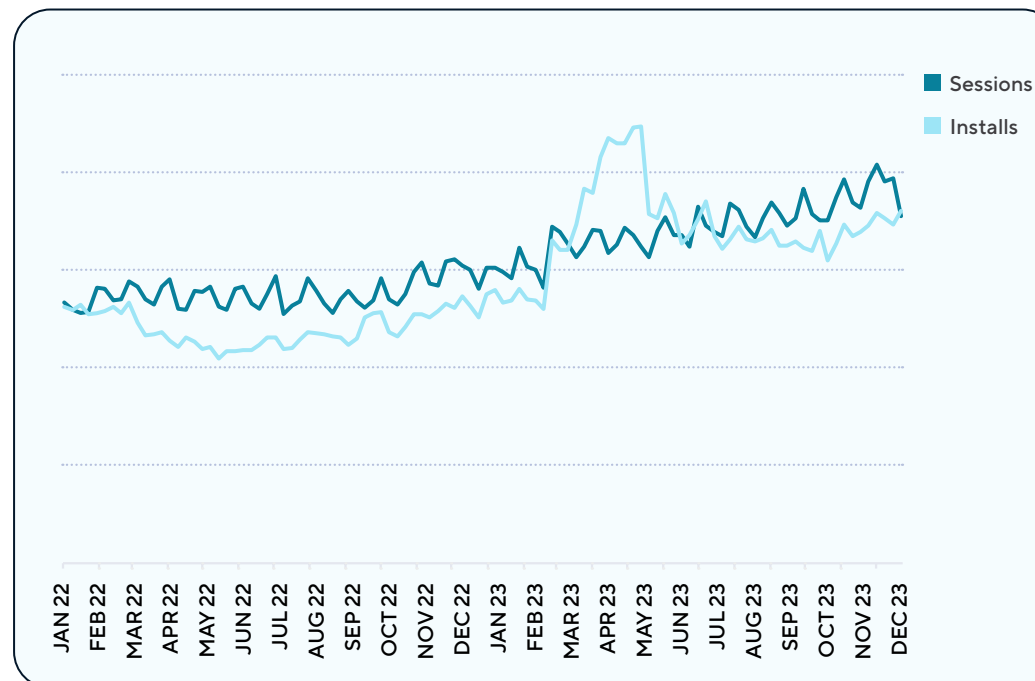
Fintech app install and session growth percentages
YoY 2022 – 2023
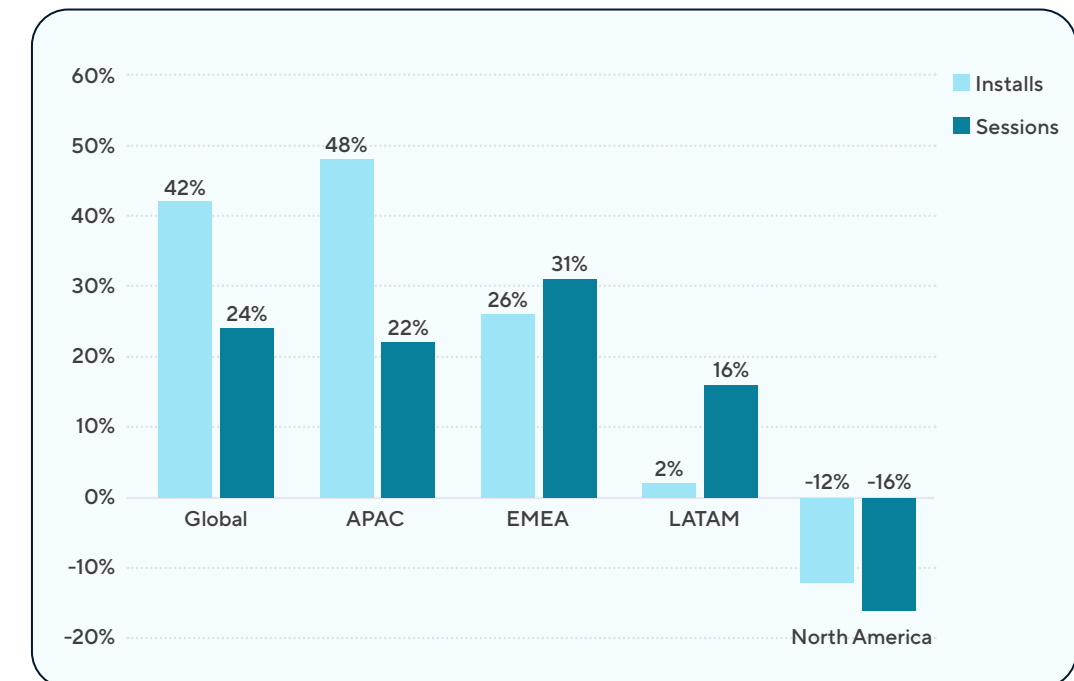
BONUS

North America did chart a 6% boost in banking app sessions YoY. While not as impressive as the global figure of 82%, it's still a positive growth signal. For payment apps, sessions increased 27% globally and an identical 27% in LATAM.

Overall, session lengths for fintech apps increased globally between 2022 and 2023, up from 6.1 minutes per session to 6.4 minutes. The longest sessions took place in North America, although the market did see a fractional decrease from just over 7.2 minutes to just under.

In 2023, the global average for fintech app sessions per user was 1.64 on day 0 and 0.85 on day 1. This pattern is universal across APAC, Europe, LATAM, MENA, and North America, and highlights the value that can be driven by creating compelling experiences that promote continued app usage beyond the first day. Increasing session numbers even marginally drastically improves monetization potential.

Fintech app session lengths 2022–2023
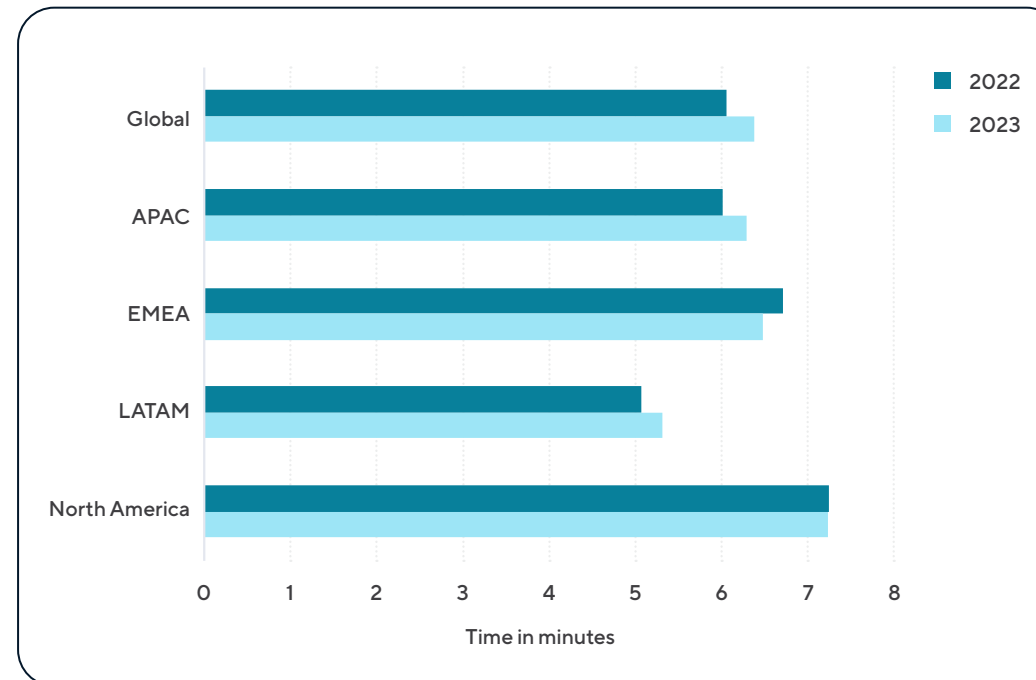
Fintech app sessions per user per day 2023
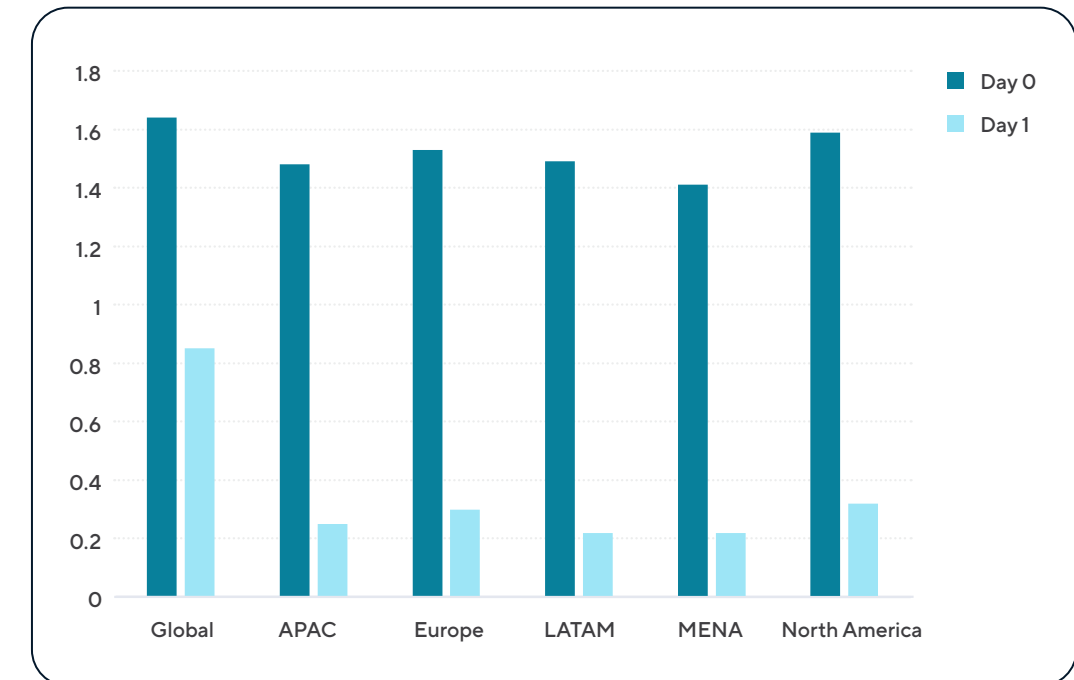
BONUS

Session lengths for banking apps globally came in at an average of 5.94 minutes, payment at 5.68 minutes, crypto at a much bigger 14.12, and stock trading at 11.66.

Fintech app retention rates 2022 - 2023 (Global)

Day after install
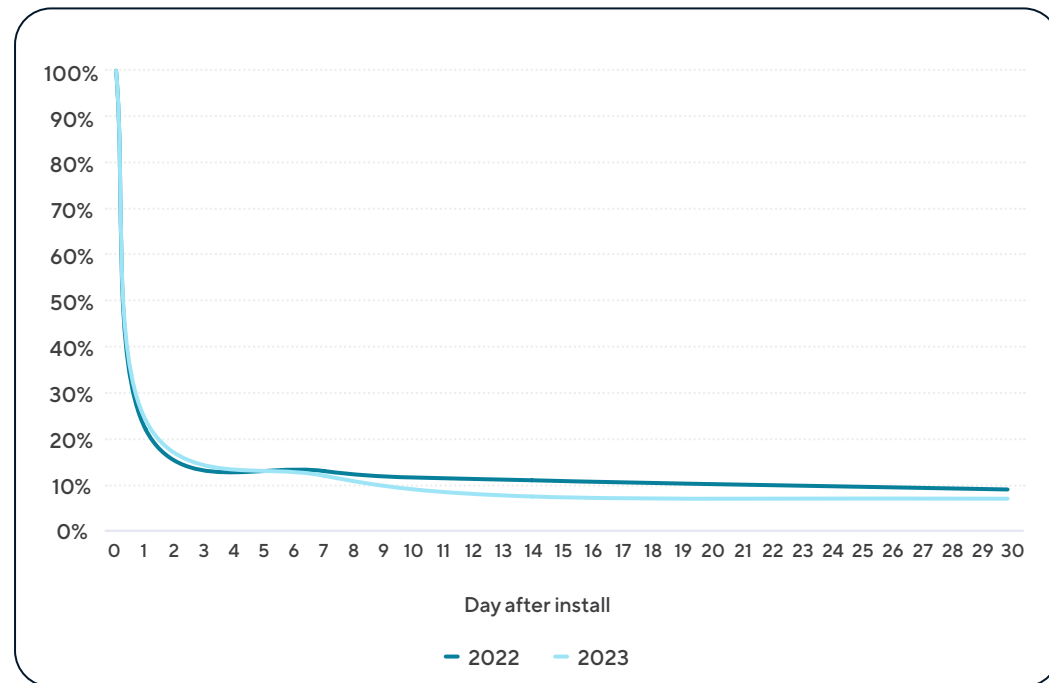
— 2022 — 2023

Fintech app stickiness 2022 - 2023 (Global)

	All	Bank	Payment
2022	20%	22%	17%
2023	26%	29%	16%
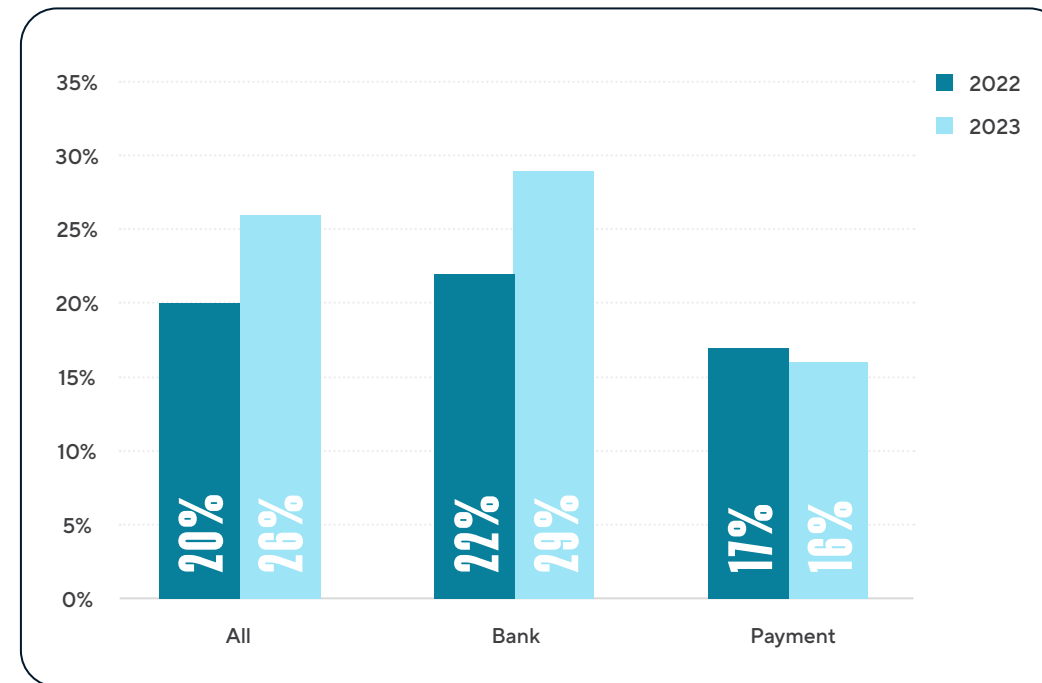
While sessions and installs climbed, retention rates fell in 2023, indicating the importance of leveraging personalization to create experiences that deliver long term users. Interestingly, day 1 rates climbed two percentage points YoY (from 22% to 24%) before tailing off throughout the rest of the 30-day post-install period, ending at 7%, down from 9% in 2022.

Retention may have fallen, but stickiness increased globally for fintech generally and for banking apps—dropping one percentage point for payment apps. This demonstrates that of installs that are converting into daily active users, an increasing proportion are also converting into monthly active users. An improvement on the retention side would push these figures up even higher.

BONUS

Of all fintech installs recorded globally by Adjust, 50.6% were banking apps, 35.9% were payment apps, 11.37% crypto, and 2% stock trading. For sessions, 58.7% were banking, 33.3% payment, 3% crypto, and 4.8% stock trading.

Fintech app eCPI 2022 – 2023 (Global)

Fintech app LTV over 30 days (Global)

In 2023, on day 0, the median LTV for banking apps on Android globally stood at $3.1. This figure rose to $7.1 by day 30. The median LTV for payment apps on Android was $0.9 on day 0, increasing to $5.2 by day 30.
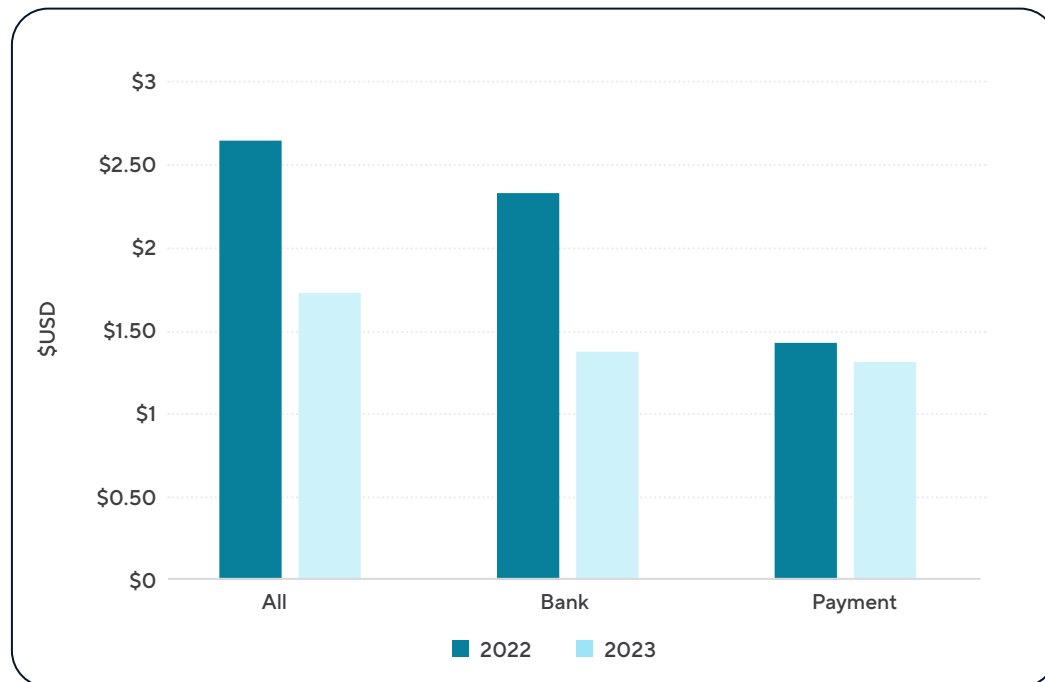
Adjust data shows that the median eCPI for fintech apps decreased across the board YoY in 2023. Banking apps dropped significantly, down from $2.33 per install to $1.37. Payment remained somewhat more consistent but still decreased from $1.43 to $1.31. With higher install rates and lower eCPIs, it's a moment of great potential for UA in the fintech space.

Pivoting to lifetime value (LTV), marketers can also expect to see a steady overall increase over the 30-day post-install period, despite an incremental daily decrease. On day 0, the median iOS LTV is $1.40, while the Android figure is a clean $1. By day 30 or month 0, these numbers sit at $4.45 and $2.05, respectively. Given the median eCPI and LTV, as it currently stands, UA marketers should be able to prove ROI on their retained fintech users within the first seven days.

In 2023, fintech app installs globally resulted in a paid/organic ratio of 0.79, showing that a high share of users are coming to the apps organically. When analyzed regionally, slight variations are seen: EMEA's ratio was close to the global average at 0.78, APAC's was slightly lower at 0.73, and North America had the lowest share of organic installs at 0.68. Considering the high portion of users installing organically, working to improve ASO performance will help drive more high-quality, organic users to fintech apps, particularly in North America.

Fintech app paid/organic ratio 2023
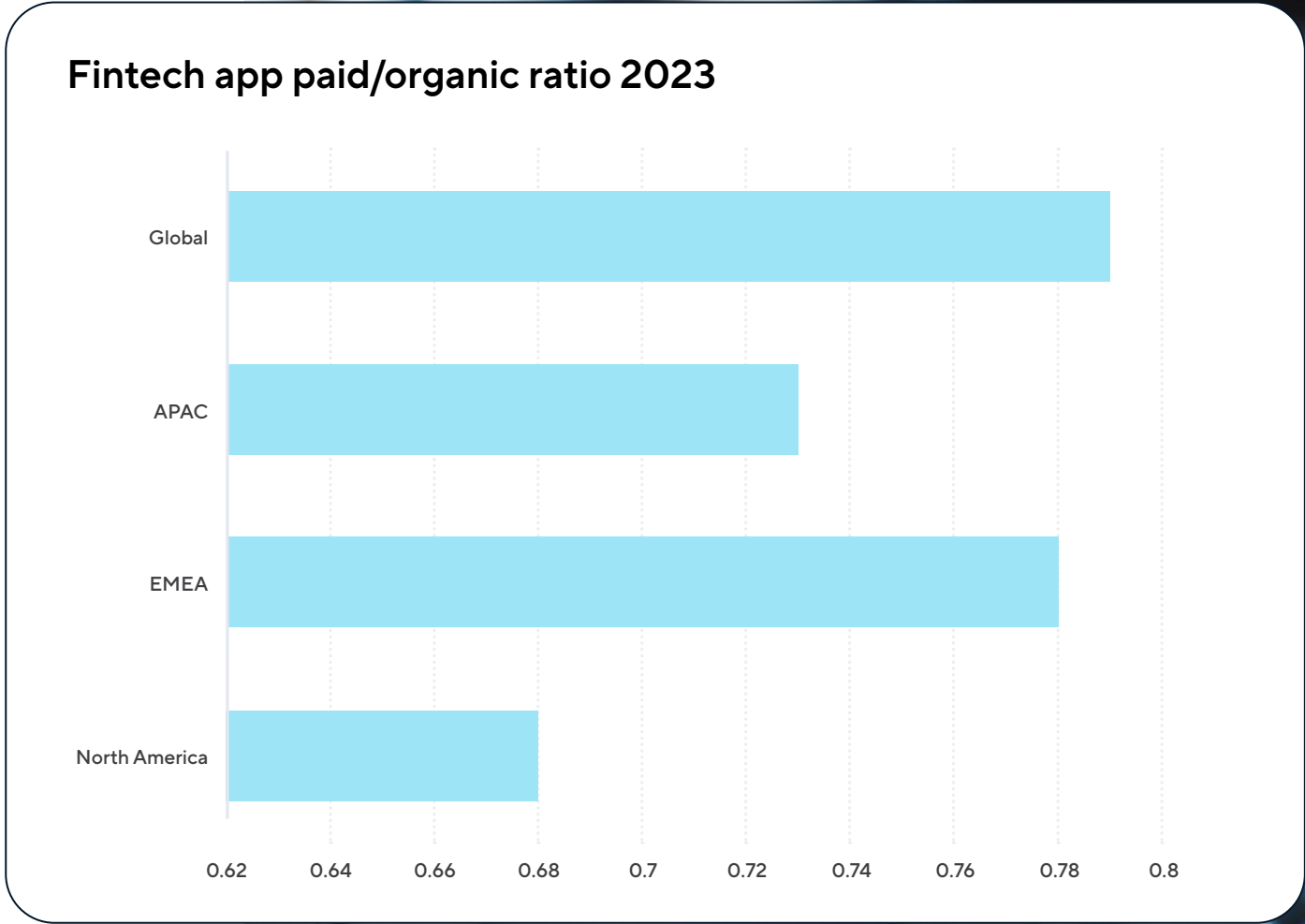
Fintech app reattribution share 2022 - 2023

Bar chart titled with regions Global, APAC, EMEA, North America showing 2022 (light blue) and 2023 (dark teal) values, x-axis from 0 to 0.2.

BONUS

Banking apps saw a rise in reattributions YoY, with the median rate increasing from 0.18 in 2022 to 0.2 in 2023.
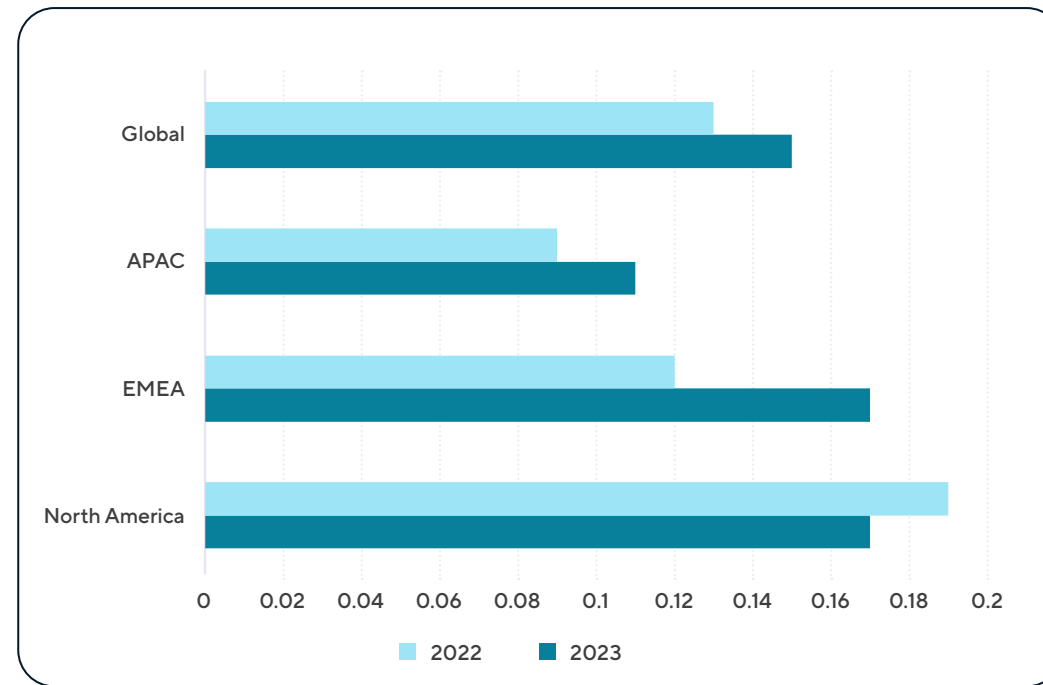
A noticeable global increase in median share of reattributions is apparent in 2023, rising from 0.13 to 0.15. Looking into regional specifics, APAC jumped from 0.09 to 0.11, and EMEA experienced the biggest increase, with reattributions climbing from 0.12 to 0.17. In contrast, North America saw a slight decrease, down from 0.19 to 0.17. This, coupled with the solid performance of non-paid installs in the vertical, indicates strong, organic interest in finance and fintech apps that meet user needs.

Fintech apps maintained an average of four partners per app in 2023. Banking apps within this sector saw notable growth in channels worked with, rising from an average of 3.3 to 4. Conversely, stock trading apps experienced a decrease in their average number of partners, dropping from 5.5 to 3.5.

In 2023, global in-app revenue for fintech apps increased by a huge 118% YoY. This surge was most sharply driven by the months of July and August, during which in-app revenue was 26% and 24% above the year's average, respectively.

**Fintech partners per app
2022 - 2023 (Global)**
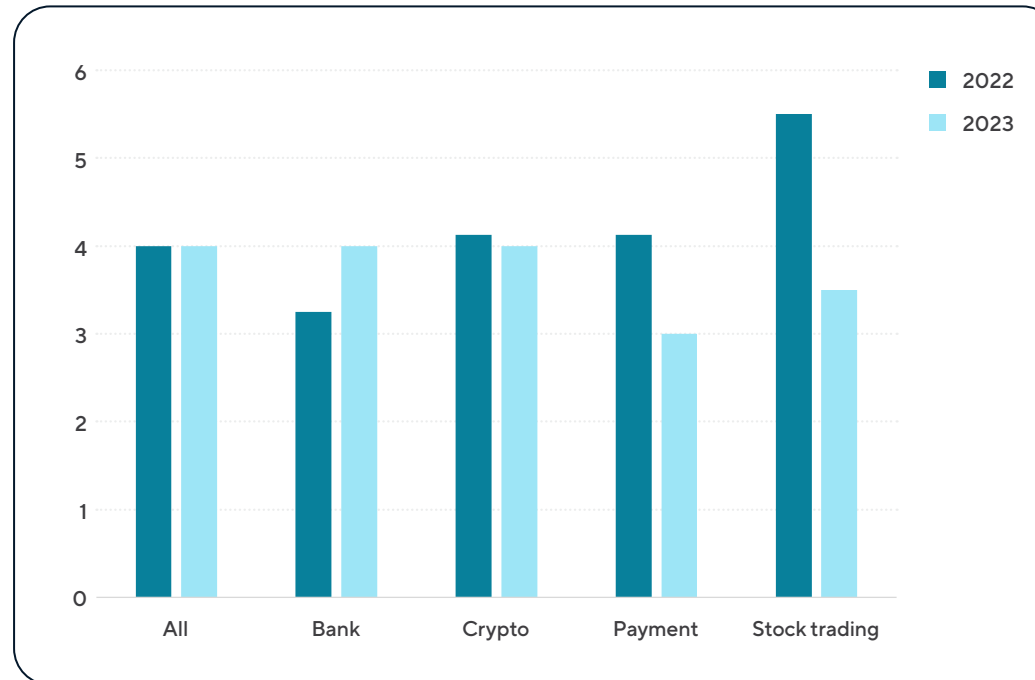
**Fintech in-app revenue
January 2022 - December 2023 (Global)**
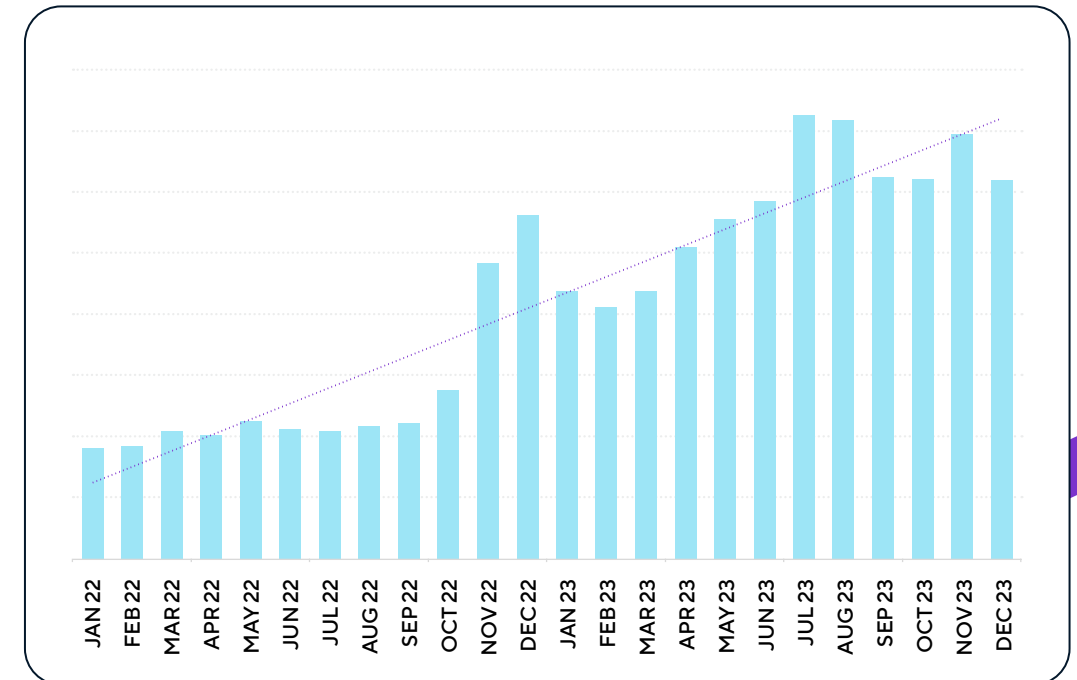
PART 2

Gaming apps

Industry stats, trends, and predictions

Top 10 gaming apps by downloads 2023 (worldwide)
Powered by data.ai's Game IQ Taxonomy

1	**Subway Surfers** Action | Runner	
2	**Free Fire** Shooting | Battle Royale	
3	**ROBLOX** Simulation | Creative Sandbox	
4	**Ludo King** Tabletop | Ludo	
5	**Candy Crush Saga** Match | M3	

6	**Royal Match** Match | M3-Meta	
7	**Block Blast Adventure Master** Puzzle | Tile-Matching	
8	**8 Ball Pool** Sports | Simulation Sports	
9	**My Talking Tom 2** Simulation | Pet	
10	**Race Master** Hypercasual | Racing	

Source: data.ai intelligence Note: iOS & Google Play

data.ai

Essential industry roundup

49%

Mobile represented 49% of total revenue generated by the global games market in 2023, $90.4 billion.

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Consumer spending on mobile games decreased 2% YoY in 2023, to $107 billion, but grew 4% outside of China.
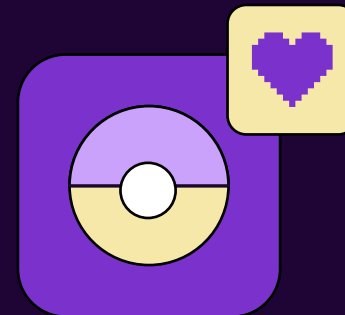
The top 10 titles for consumer spend globally were Candy Crush Saga, Honor of Kings, ROBLOX, Royal Match, Coin Master, Genshin Impact, Gardenscapes, Monopoly GO, Pokemon GO, and Game for Peace.

AD

Mobile games ad spend will reach $103 billion in 2024 and $131 billion in 2025.

530.16M HOURS

Mobile Legends: Bang Bang was the most watched mobile gaming esports title in 2023, with 530.16M hours watched, followed by PUBG with 135.16M hours.

What we're keeping an eye on in 2024: The in-game NFT space, cloud gaming on CTV and OTT, augmented reality and virtual reality gaming, an uptick in subscription models on mobile, and cross-platform PC and console play.
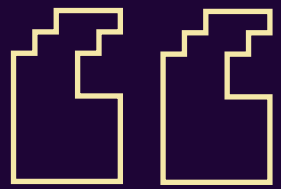
"Advancements in AI technology, particularly the algorithms that power our UA platform, enable advertisers to achieve their desired campaign goals with greater accuracy and scalability. As AI continues to refine its ability to accurately determine where to spend to deliver optimal performance, **the need for manual optimization is eliminated.** This significantly increases efficiency for advertisers of all sizes and verticals."

APPLOVIN

Hussein Zayan, Sr. Director
Business Development

Finding and keeping users

2023 didn't represent the great bounce-back for mobile gaming app installs and sessions that the industry was hoping for, but things are starting to look up. While installs decreased by 2% globally and sessions by 7%, installs in Q4 of 2023 grew by 7% YoY. With the ongoing boom of hybrid casual, we're quietly confident that the needle will keep moving in the right direction overall.

Gaming app install and session growth
January 2022 - December 2023 (Global)
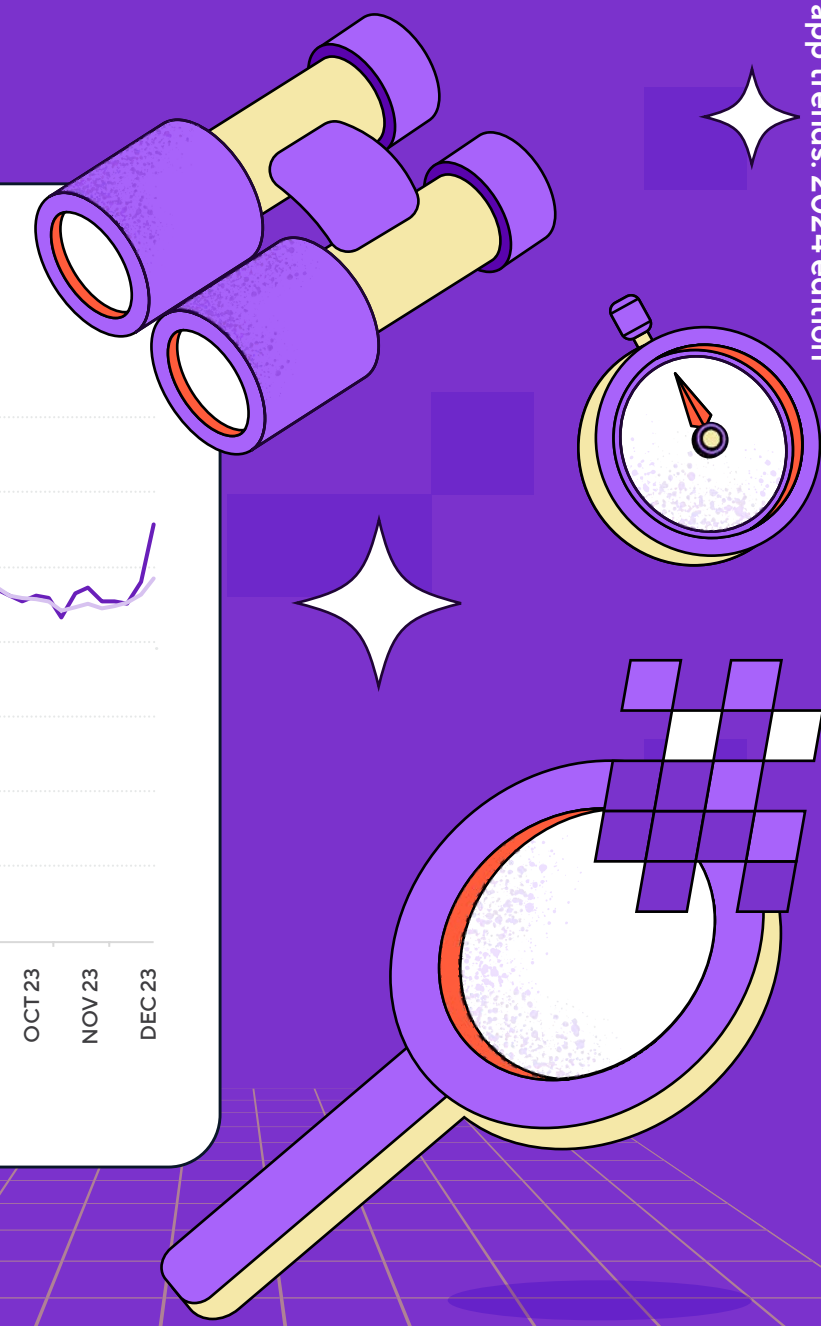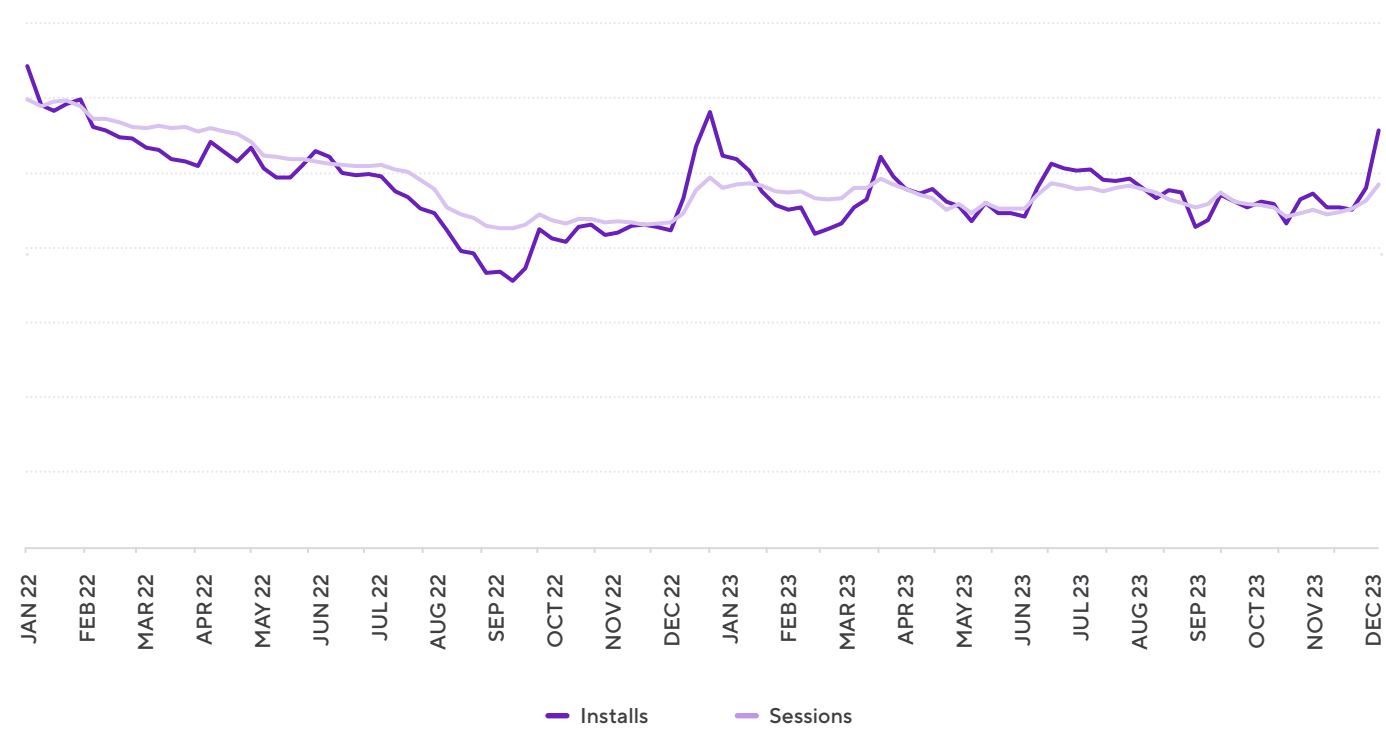
— Installs　　— Sessions

Regionally, LATAM bucked the global trend, with gaming installs bouncing up 7% and sessions by a modest 1%. EMEA saw the highest degrowth in sessions (9%) and North America charted the biggest decrease in installs (6%). Looking at the YoY installs numbers for Q4, however, APAC grew by 3%, EMEA by 12%, LATAM by 19%, and North America by 6%.

Gaming app install and session growth percentages YoY 2022 – 2023

Legend:
- Installs
- Sessions

Region	Installs	Sessions
Global	-2%	-7%
APAC	-3%	-6%
EMEA	-3%	-9%
LATAM	7%	1%
North America	-6%	-7%

"
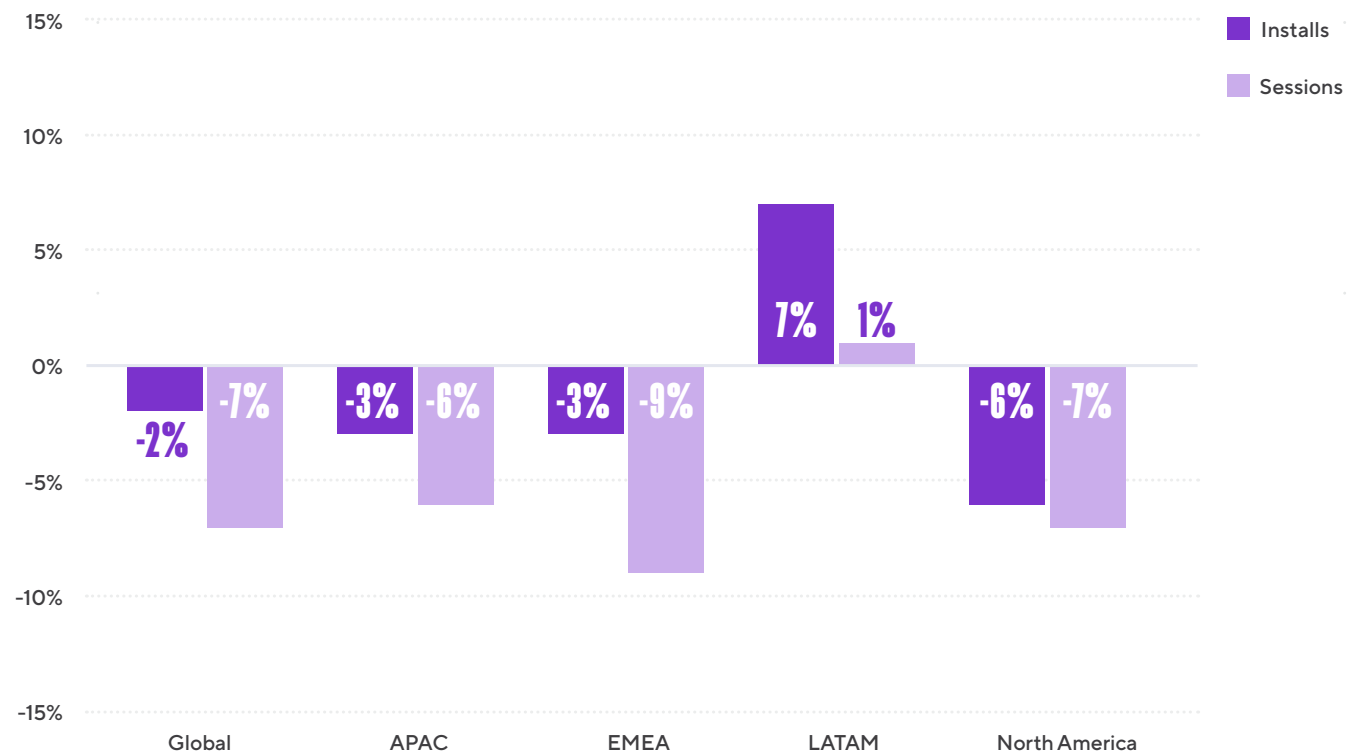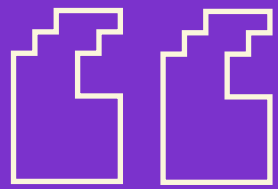
"While overall gaming installs had modest growth compared to 2022, a closer look reveals a different story. In the latter half of 2023, **a notable uptick in DAV (daily active viewers) and a surge in CPMs led to stronger returns** for app developers. This is most evident when looking at sub-categories such as hybrid casual, where we've seen a significant rise in revenue compared to last year. These trends highlight healthy growth for the gaming industry.

APPLOVIN

Daniel Tchernahovsky
VP, Global Business Development

Gaming app installs and sessions by subvertical (Global)

Installs

Sessions

Legend:
- Action
- Adventure
- Arcade
- Board
- Card
- Casino
- Casual
- Educational
- Family
- Hyper casual
- Music
- Puzzle
- Racing
- RPG
- Simulation
- Sports
- Strategy
- Trivia
- Word
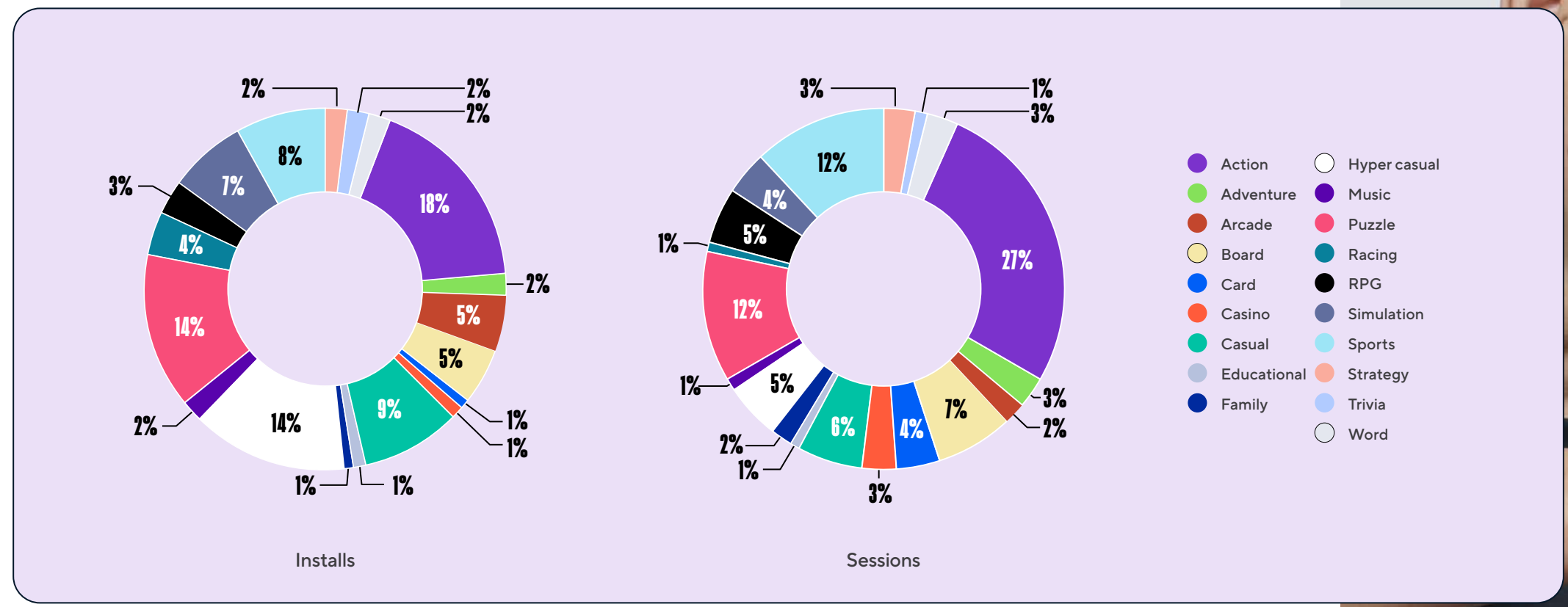
Of all gaming installs, action accounted for the largest share with 18%, followed by hyper casual (14%), puzzle (14%), casual (9%), and sports (8%). Action also accounted for the largest piece of the sessions pie at an even bigger 27%, followed by puzzle (12%), sports (12%), board (7%), and casual (6%).

27
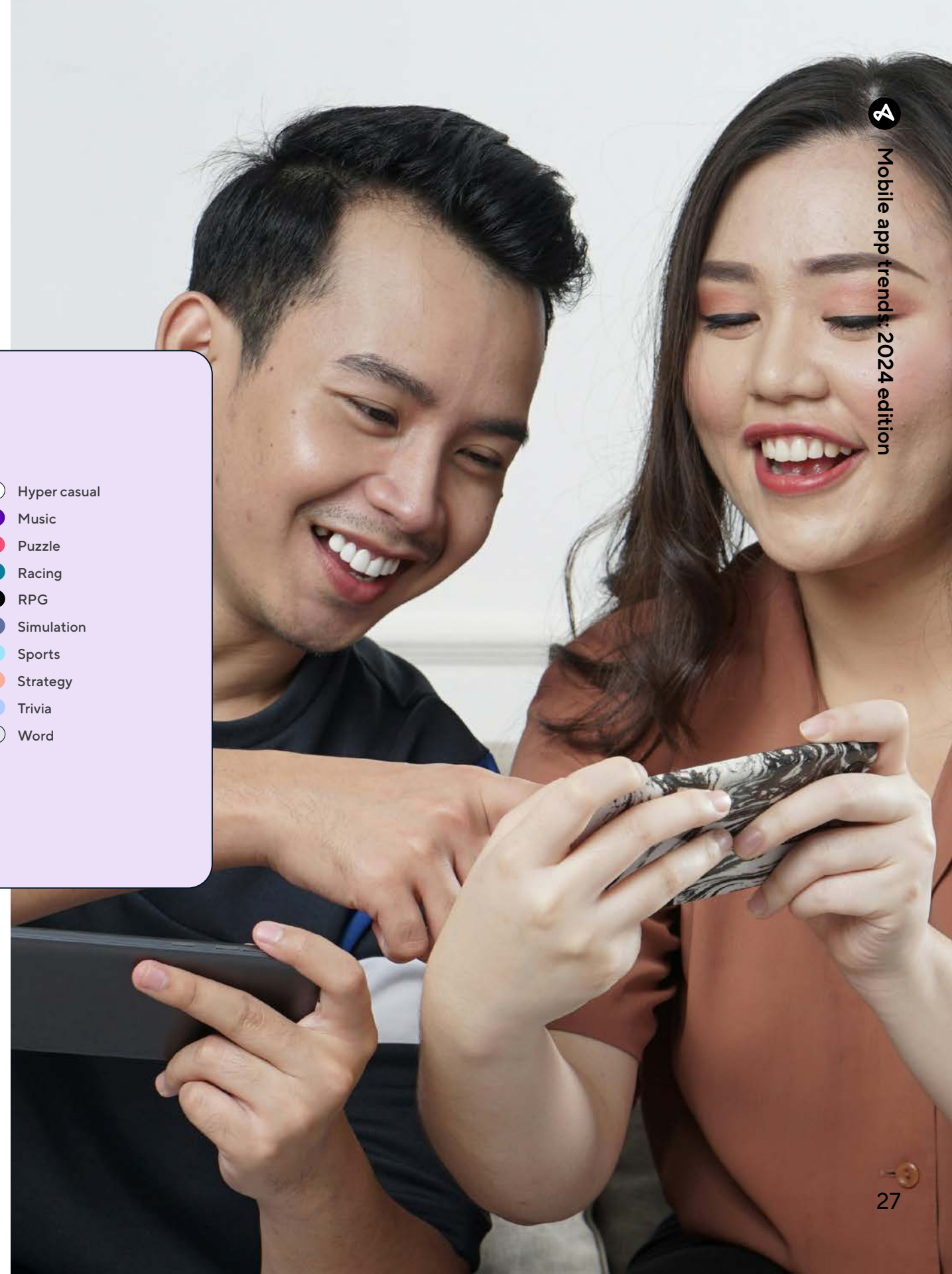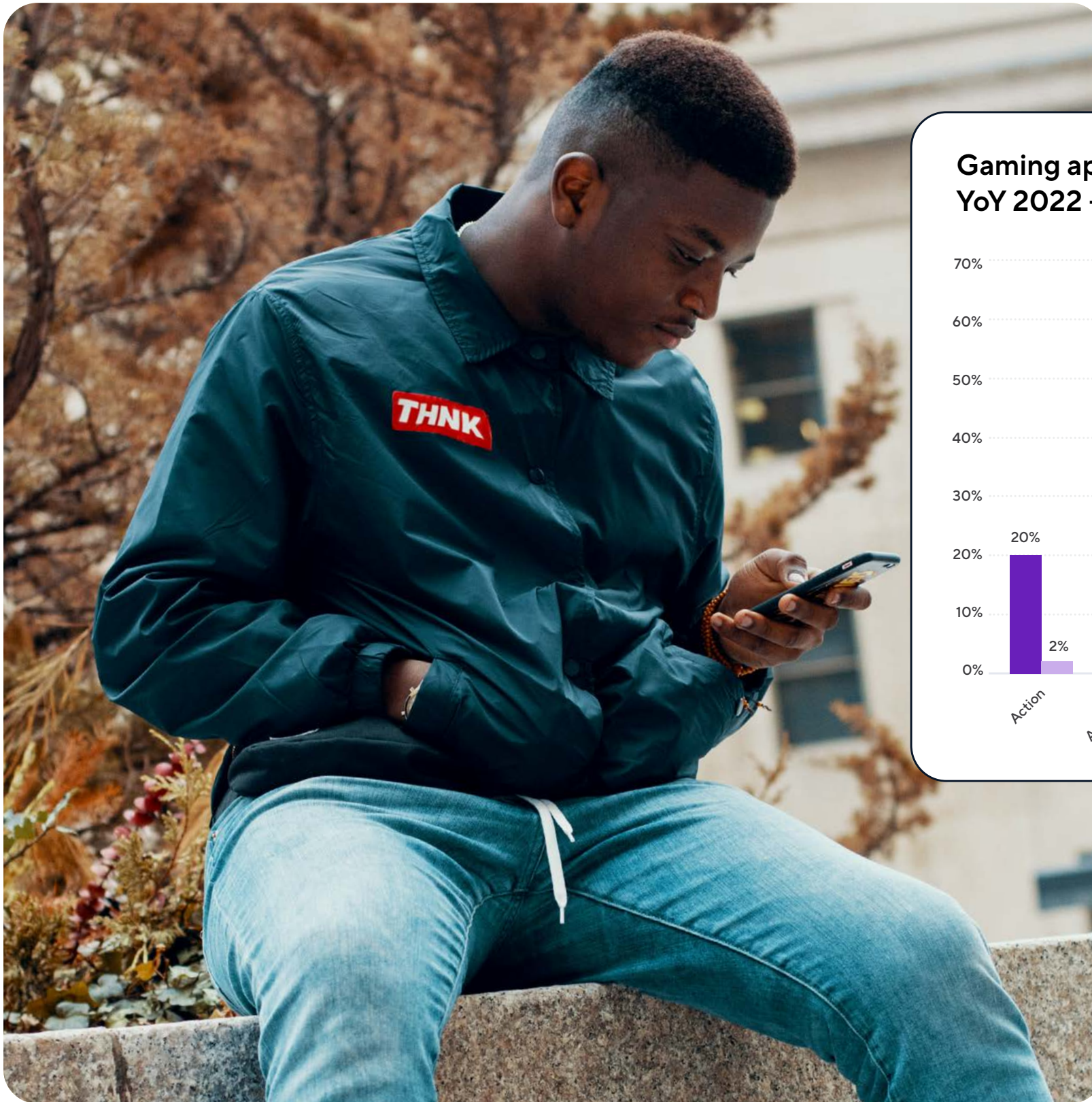
Gaming app subvertical install growth percentages YoY 2022 – 2023 (Global)

Legend: Installs (dark purple), Sessions (light purple)

Category	Installs	Sessions
Action	20%	2%
Adventure	9%	7%
Arcade	38%	19%
Board	30%	3%
Puzzle	15%	1%
Racing	61%	2%
Simulation	53%	6%
Trivia	12%	5%
Word	13%	4%
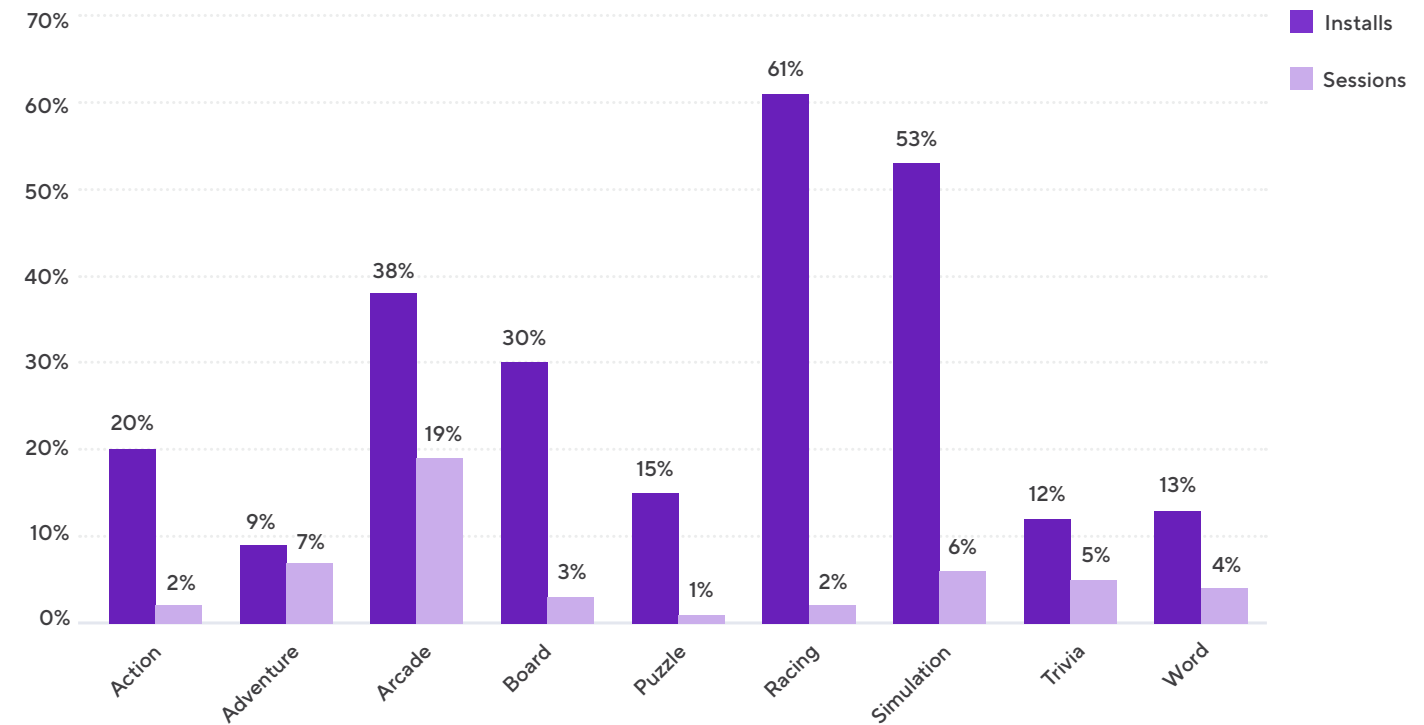
The overall sessions and installs landscape might look less than optimistic, but at subvertical level, there were a healthy number of growth areas in 2023. Racing and simulation games saw the highest installs spikes at 61% and 53%, respectively, while arcade and adventure charted the biggest sessions increases, 19% and 7%.

Interestingly, the average session lengths for games remained identical YoY from 2022 to 2023 at 32 minutes per session. The longest session lengths took place in APAC, which grew from just under 35 minutes per session to just over. LATAM, the only region with YoY sessions and installs growth overall, dropped from 27 to 26 minutes per session.

In 2023, gaming apps saw a significant (but expected) decline in user engagement from day 0 to day 1. Users started with an average of 1.93 sessions on the first day and dropped to 0.63 by the next day. Hyper casual games showed the most considerable reduction, beginning with 1.86 sessions on day 0 and falling to just 0.51 by day 1. Simulation charted the highest figures, with 0.77 on day 1 and 2.06 on day 0.

Gaming app session lengths
2022-2023
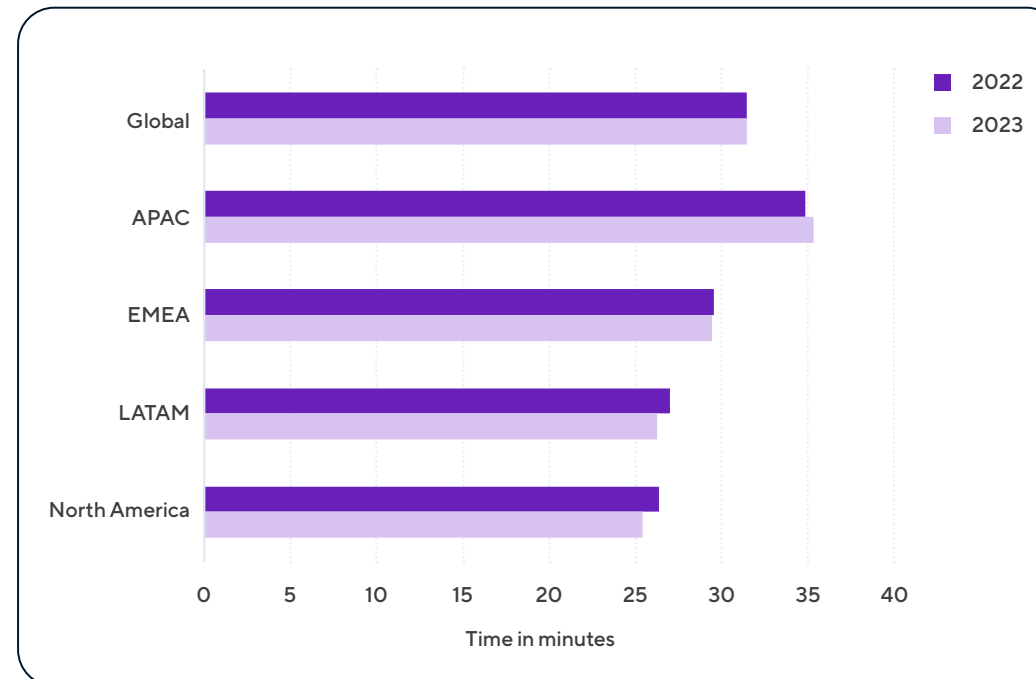
Gaming app sessions per user per day
2023 (Global)
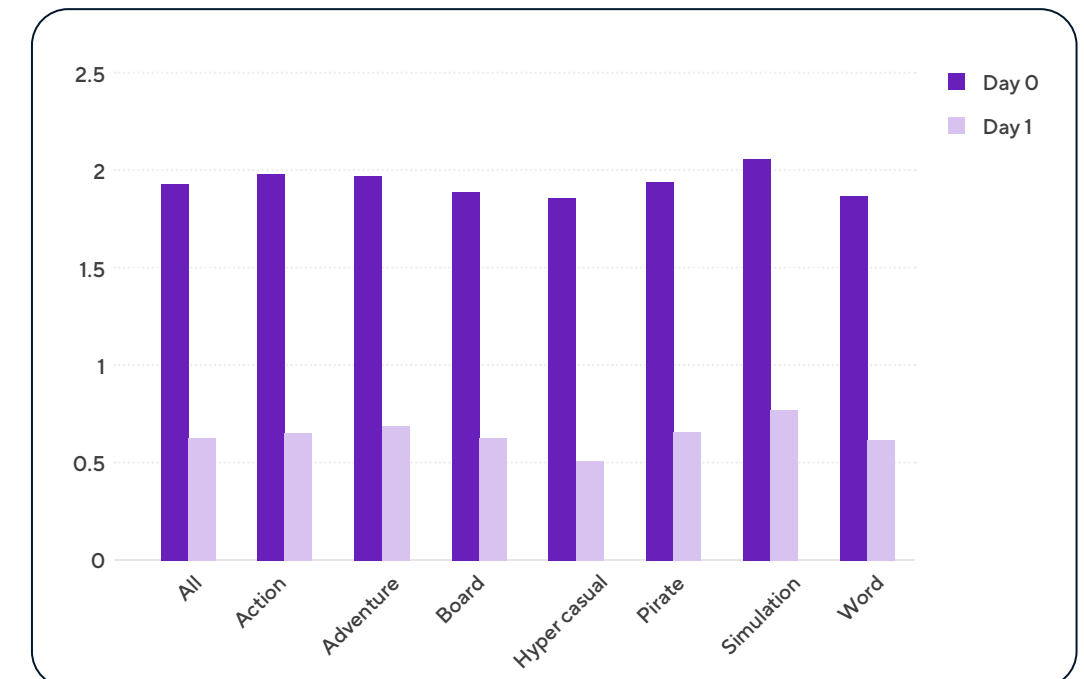
BONUS

Action games had the longest session lengths at 45.65 minutes, followed by RPG at 40.43. Hyper casual sessions were the shortest at 16.36 minutes.

Gaming app retention rates
2022 – 2023 (Global)

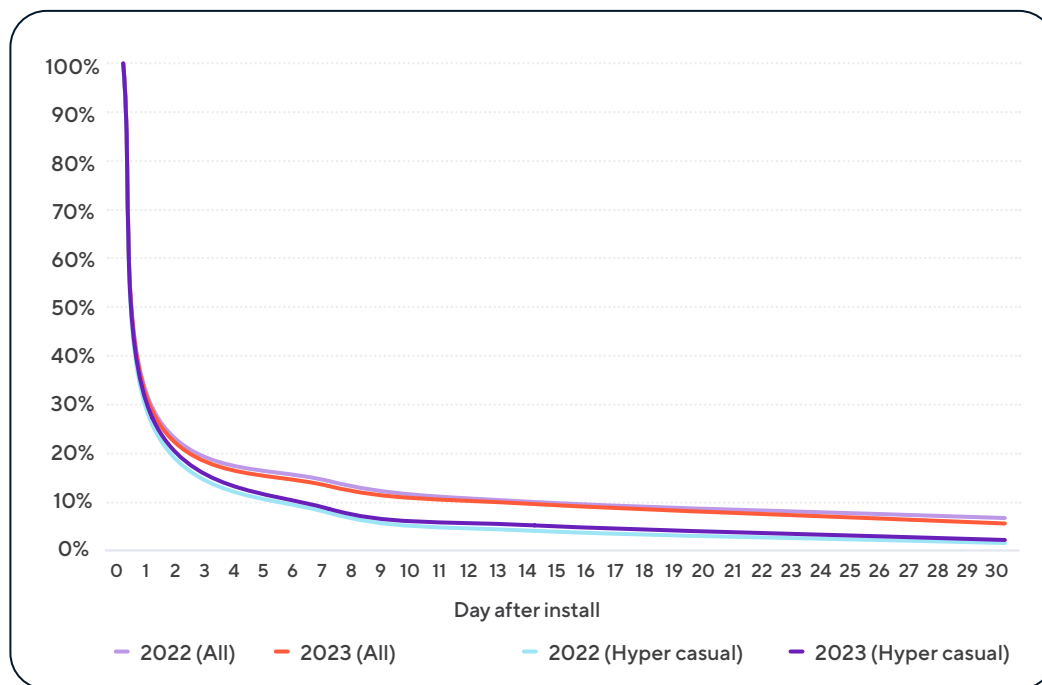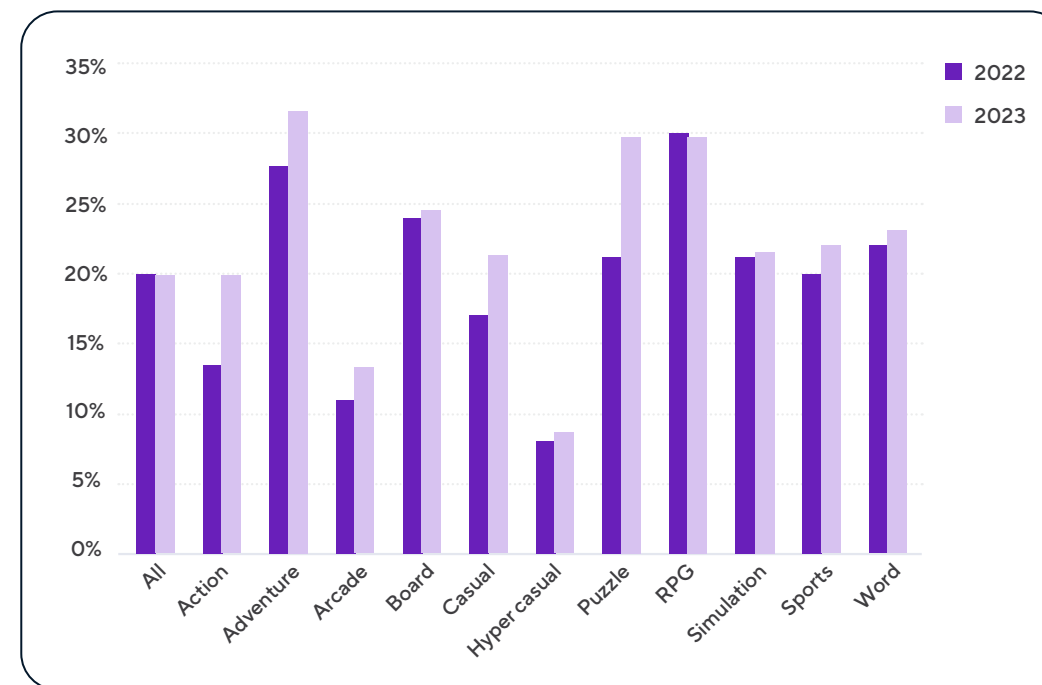## Gaming app stickiness
2022 – 2023 (Global)

Retention rates were consistent across the gaming vertical when comparing 2022 to 2023, but did tend to a slight overall decrease. Day 1 rates for all games dropped from 29% to 28.3%, day 7 from 14% to 13%, day 14 from 9.7% to 9.3%, and day 30 from 6.4% to 5.3%. Hyper casual, with its very different retention pattern to most gaming subverticals, increased its day 1 rate from 26% to 27%, its day 7 rate from 8% to 8.4%, day 14 from 4.3% to 5% and day 30 from 1.8% to 2%.

Gaming app stickiness was resilient in 2023, maintaining the 2022 rate of 20% globally. Looking at different categories, there was a lot of growth, indicating that although install rates are down overall, for many subverticals (including those where installs are up), an increasing number of DAUs are converting into MAUs. Adventure games charted the highest stickiness (31.6%), followed by puzzle and RPG (both 29.8%), board (24.5%), and word (23.1%).
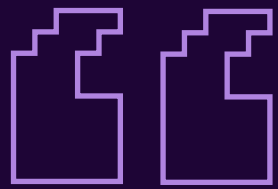
"The best way for gaming developers to increase long-term retention is to **make their game or app feel like it's designed especially for their players.** AI helps by enabling the developer to segment users and customize game progression so it feels as if the game's level of difficulty has been uniquely calibrated to a user. Segmentation can create custom experiences that feel unique to each user, which leads to more engagement–and that leads to more retention. We're likely to see more of this application of AI–in gaming and beyond–to personalize app experiences and successfully retain users."

APP LOVIN

Daniel Tchernahovsky
VP, Global Business Development

The increase seen in cost per install across the board in gaming throughout 2023 is probably the highest driver of the decrease in installs, as high acquisition costs lead, overall, to less acquisition. The cost increase for adventure and simulation (among others) proved to be an exception, with their installs and sessions numbers booming despite the price. Simulation saw the biggest jump ($1.23), and RPG actually decreased by $0.42.

Focusing on LTV, we see that the subverticals with more expensive eCPI do also offer higher payoff over a 30 day period. RPG games represent the highest median LTV, around $3.31 per user by month 0, followed by adventure games users at $2.35. Comparing the eCPI and LTV directly, neither vertical's users pay for their install cost by month 0, indicating the importance of understanding user expectations to create more monetization opportunities and higher revenue medians.

Gaming app eCPI 2022 - 2023 (Global)
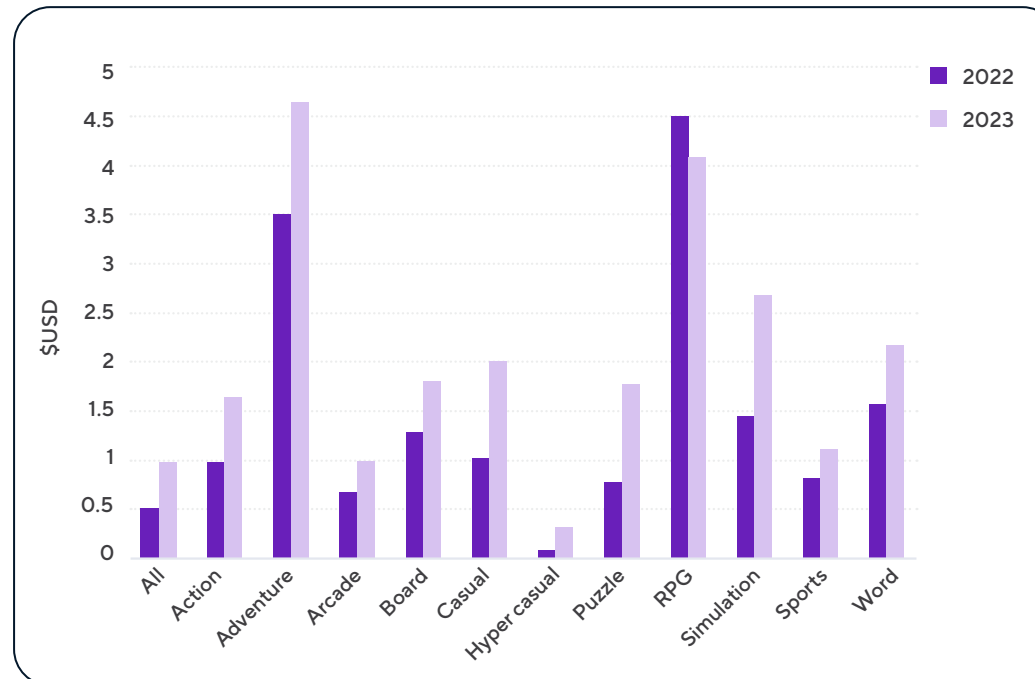
Gaming app cumulative LTV (Global)

"
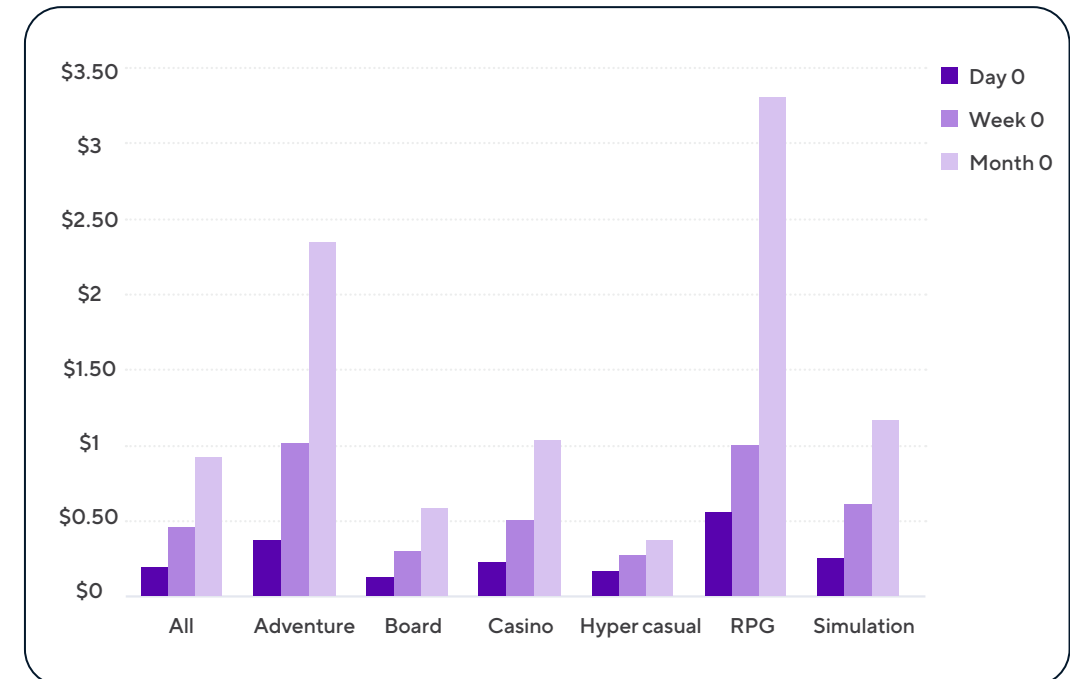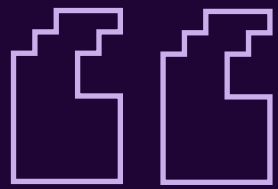
"App businesses aim to acquire as many users as possible that engage and yield a profit. In the past, a UA manager focused on hitting short-term targets like a D7 ROAS because that number indicated a high likelihood of profitability. Today, **the priority is to understand the curve of user behaviors within their app when acquiring players across different channels with their own algorithms and associated campaign types.** By segmenting and optimizing toward these behaviors, UA managers can achieve profitable growth more quickly and sustainably."

APPLOVIN
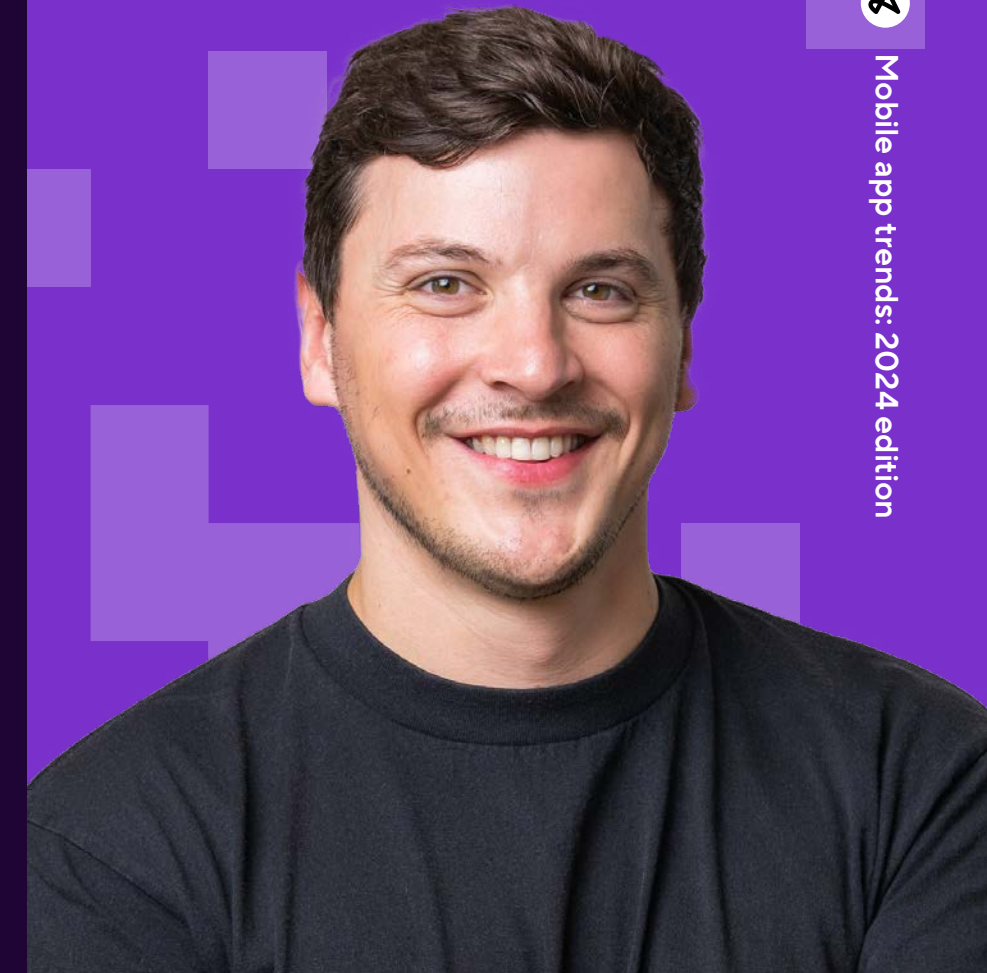
Cyril Cael
VP, EMEA Business Development

Gaming app paid/organic ratio 2022 - 2023 (Global)

Gaming app reattribution share 2022 - 2023 (Global)

BONUS

In 2023, APAC had the gaming vertical's highest paid vs. organic ratio globally at 0.56, followed by MENA at 0.51, LATAM at 0.42, and North America at 0.4.

Mobile gaming experienced an overall decrease in the ratio of organic to paid installs, falling from 0.71 to 0.54. This reduction was noticeable in subgenres such as board, puzzle, and word games, the latter of which saw the biggest drop in organic installs. Action and adventure games, however, climbed from 0.42 to 0.82 and 0.3 to 0.72, respectively, suggesting heightened interest in these particular genres, and a decreased emphasis on paid UA.

In 2023, gaming apps saw a significant decrease in reattributions, with the share dropping from 0.04 to 0.02. This trend was most evident across board, hyper casual, puzzle, simulation, and word games. While the first three typically monetize via new users and fast-paced UA, simulation's figures map to the increase in installs across the board for the vertical.

Gaming partners per app 2022 - 2023 (Global)

Legend: 2022, 2023

Categories: All, Action, Adventure, Arcade, Board, Puzzle, Hyper casual, Simulation, Trivia, Word

Gaming in-app revenue
January 2022 - December 2023 (Global)

Months: JAN 22, FEB 22, MAR 22, APR 22, MAY 22, JUN 22, JUL 22, AUG 22, SEP 22, OCT 22, NOV 22, DEC 22, JAN 23, FEB 23, MAR 23, APR 23, MAY 23, JUN 23, JUL 23, AUG 23, SEP 23, OCT 23, NOV 23, DEC 23
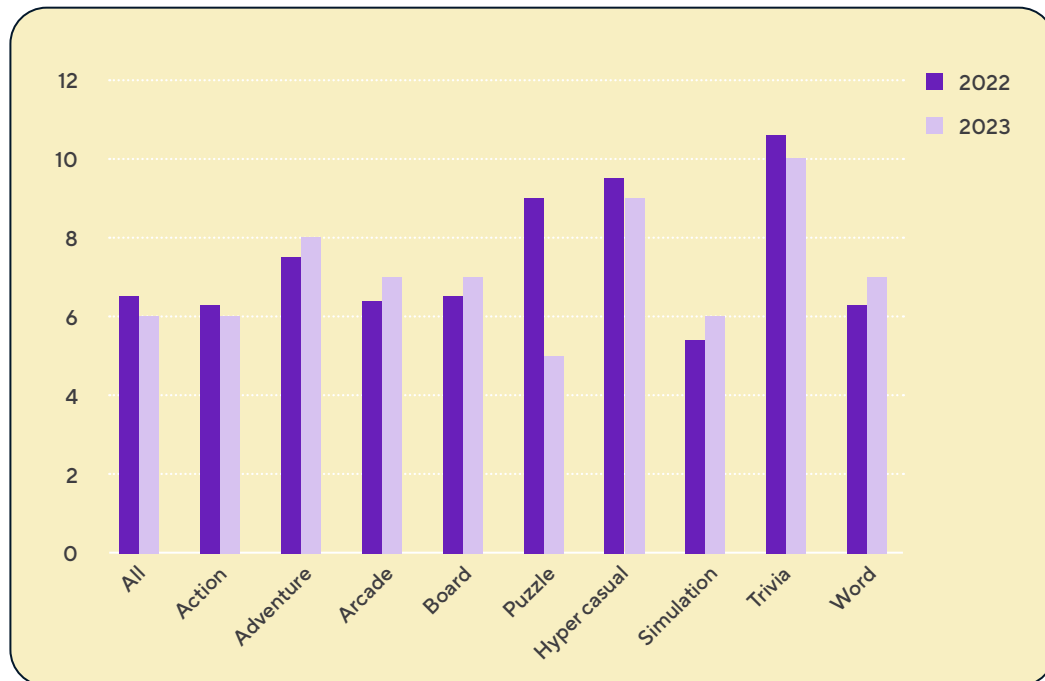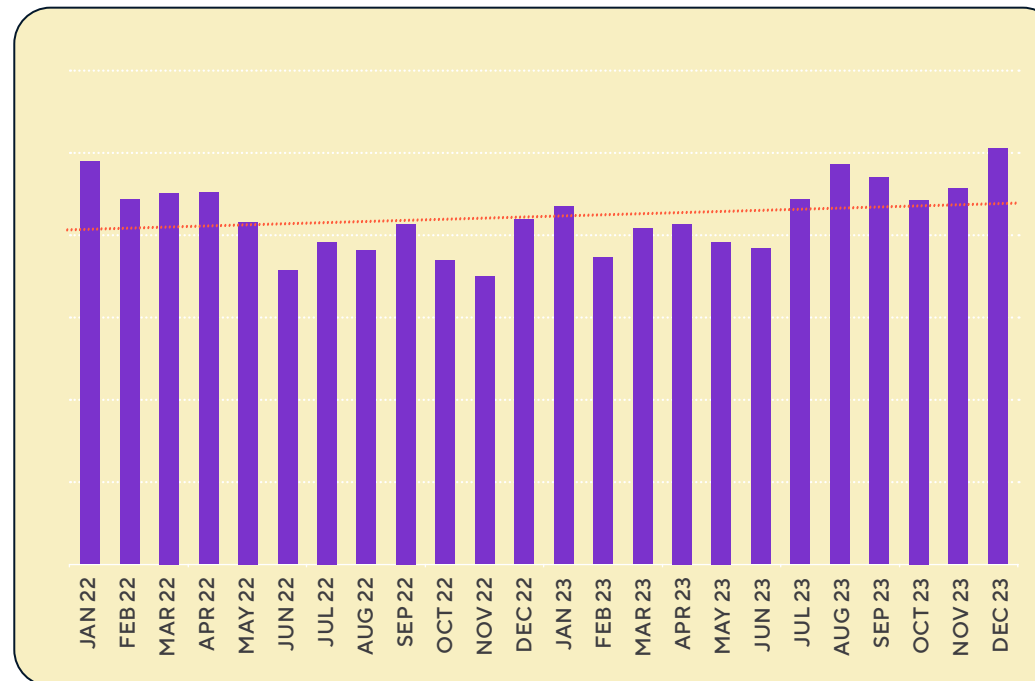
There was a slight decrease in partnerships within the gaming app industry in 2023, which correlates with the decrease in share of paid installs and drop in installs overall. The median number of partners dropped from 6.5 to 6. The biggest drop was seen for puzzle games, down from 9 to 5. Adventure and word games, on the other hand, expanded their networks. The number of partners for adventure games rose from 7.5 to 8, and for word games, it increased from 6.3 to 7.

Gaming apps experienced a notable 6% rise in in-app revenue YoY, indicating high spend from the smaller number of users overall. The trend was especially noticeable in December, when in-app revenue was 17% higher than the yearly average, which correlates with the YoY installs boost seen in Q4. Looking ahead, we anticipate this growth to extend into 2024, with marketers and developers that embrace AI-driven personalization likely to reap the most rewards as they unlock clever ways of finding and monetizing users.

PART 3

Shopping and e-commerce apps

Industry stats, trends, and predictions

Top 10 shopping apps by downloads 2023 (worldwide)
Powered by data.ai's App IQ Taxonomy

#	App		#	App	
1	**SHEIN** Shopping | E-Commerce		6	**Flipkart** Shopping | E-Commerce	
2	**Temu** Shopping | E-Commerce		7	**Alibaba.com** Shopping | E-Commerce	
3	**Amazon** Shopping | E-Commerce		8	**Shopsy** Shopping | E-Commerce	
4	**Shopee** Shopping | E-Commerce		9	**AliExpress** Shopping | E-Commerce	
5	**Meesho** Shopping | E-Commerce		10	**Pinduoduo** Shopping | E-Commerce	

Source: data.ai intelligence Note: iOS & Google Play

data.ai

Essential industry roundup

$2.5 TN

Global mobile e-commerce sales reached $2.2 trillion in 2023 and are expected to hit 2.5 trillion in 2024, representing 60% of total e-commerce sales.

100BN HOURS

There were 100 billion hours spent in shopping apps worldwide in 2023.

91%

91% of smartphone users make purchases with their device.

83%
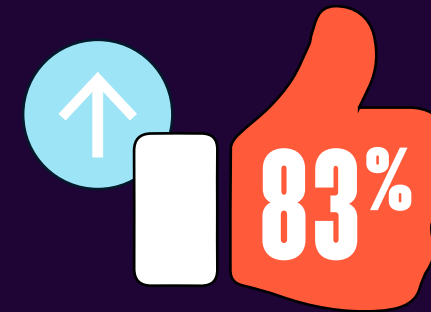
Social commerce has an expected CAGR of 31.6% between 2023 and 2030, and 83% of Gen Z consumers say shopping starts on social media.

71% of millennials and 60% of Gen Z have used Apple Pay, which controls 82% of the U.S. digital wallet market.

What we're keeping an eye on in 2024: Curated content and AI-driven personalization, BNPL, third-party payments, cross-border e-commerce, and augmented reality shopping.

"

"We continue to see mobile increasingly dominate online shopping (54% of sales this Black Friday came from mobile, up 10% from just one year ago). This trendline will continue up and to the right. As marketers grapple with the convergence of paid advertising and owned media, **it's imperative that mobile affiliate marketing continues to take center stage as its role in influencing the entire buyer's journey cannot be understated.** M-commerce will soar in 2024, and affiliate marketing has an opportunity to play a large part of that growth"

APPLOVIN

Simon Baptist
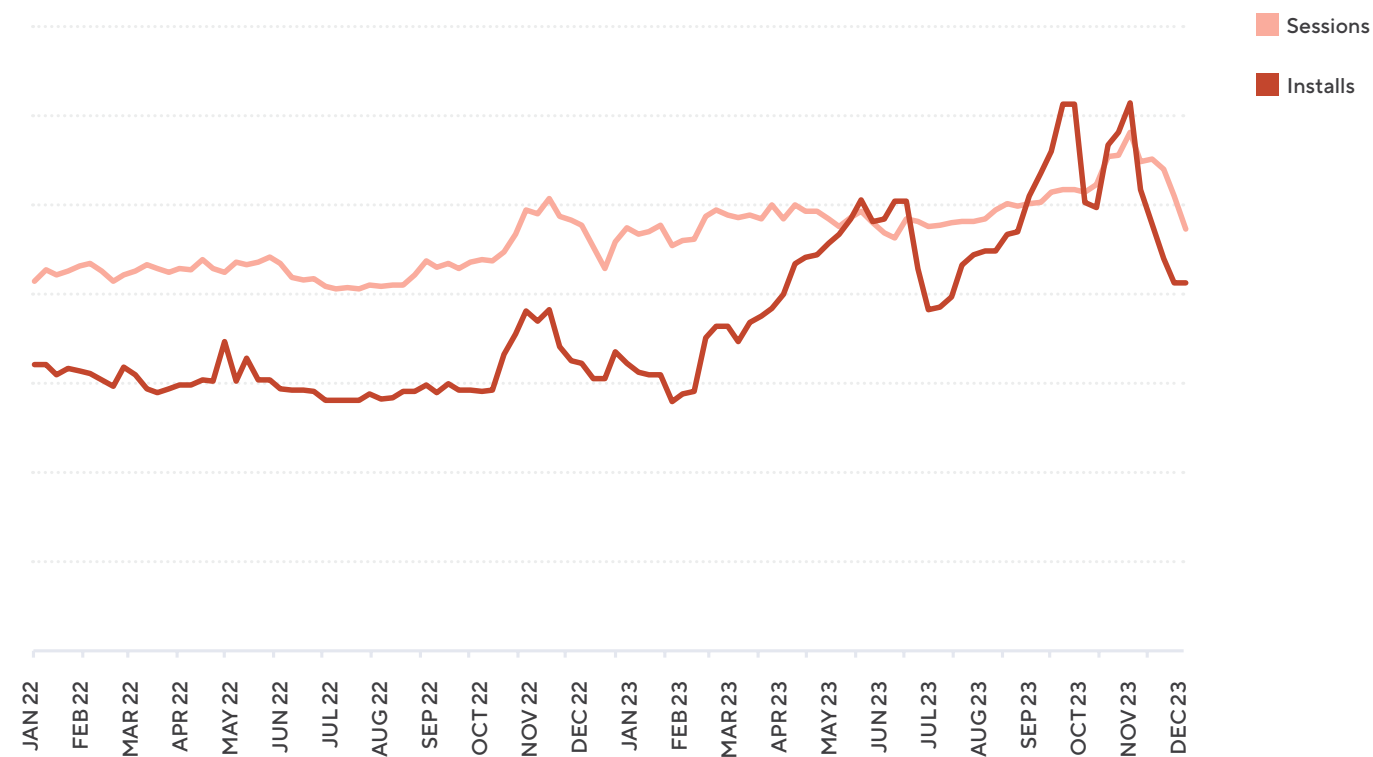**Director of Commerce Business**

Finding and keeping users

Install and session numbers for e-commerce apps globally were promising in 2023, with the former up an impressive 43% YoY and the latter by 14%. While this indicates some room for improvement in the retention and longer-term LTV space, it's an excellent rate of growth and bounceback, considering the previous year's slight decrease. The numbers are even better when we look at the vertical's all-important Q4, in which installs grew by 59% YoY.

BONUS

Shopping app installs and sessions increased by 56% and 14% YoY globally. In North America, shopping app sessions and marketplace app sessions both grew by 13%.

E-commerce app install and session growth percentages YoY 2022 - 2023

Legend: Sessions, Installs

X-axis: JAN 22, FEB 22, MAR 22, APR 22, MAY 22, JUN 22, JUL 22, AUG 22, SEP 22, OCT 22, NOV 22, DEC 22, JAN 23, FEB 23, MAR 23, APR 23, MAY 23, JUN 23, JUL 23, AUG 23, SEP 23, OCT 23, NOV 23, DEC 23
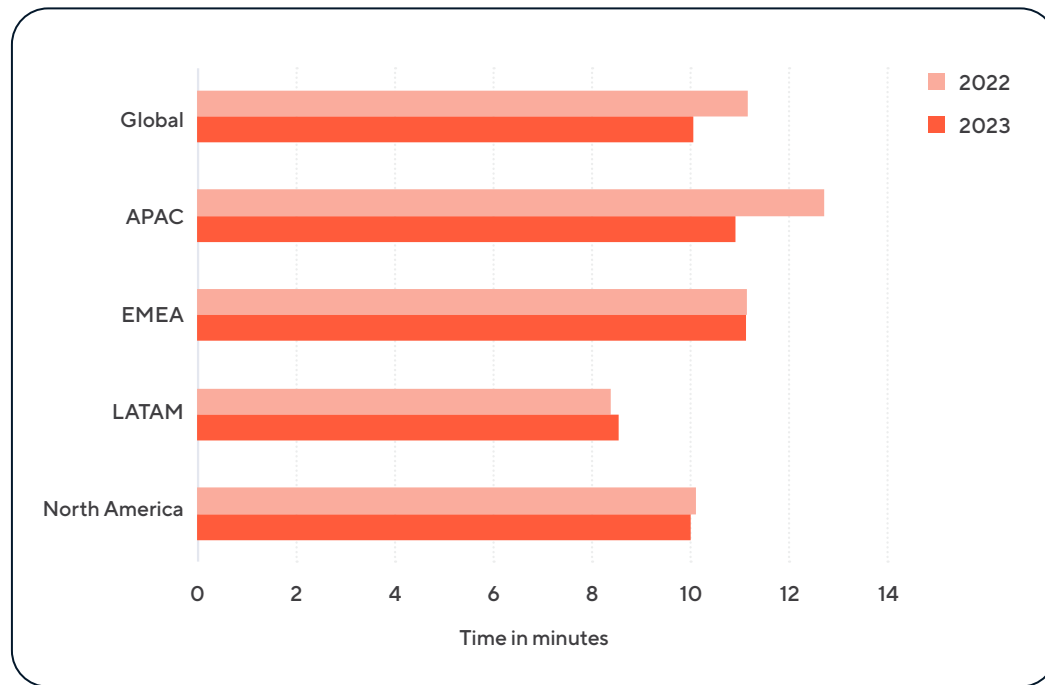
All individual regions we examined also saw growth in the mobile e-commerce space across both installs and sessions. The highest YoY rates of growth for installs were seen in North America (98%) and EMEA (60%) and the biggest sessions boosts were charted in LATAM (26%) and EMEA (20%). Prioritizing tech that provides the necessary personalization to increase conversion rates and basket sizes will make the most difference.

**E-commerce app install and session growth percentages YoY 2022 - 2023**

Legend: Installs, Sessions

Region	Installs	Sessions
Global	43%	14%
APAC	6%	2%
EMEA	60%	20%
LATAM	12%	26%
North America	98%	2%
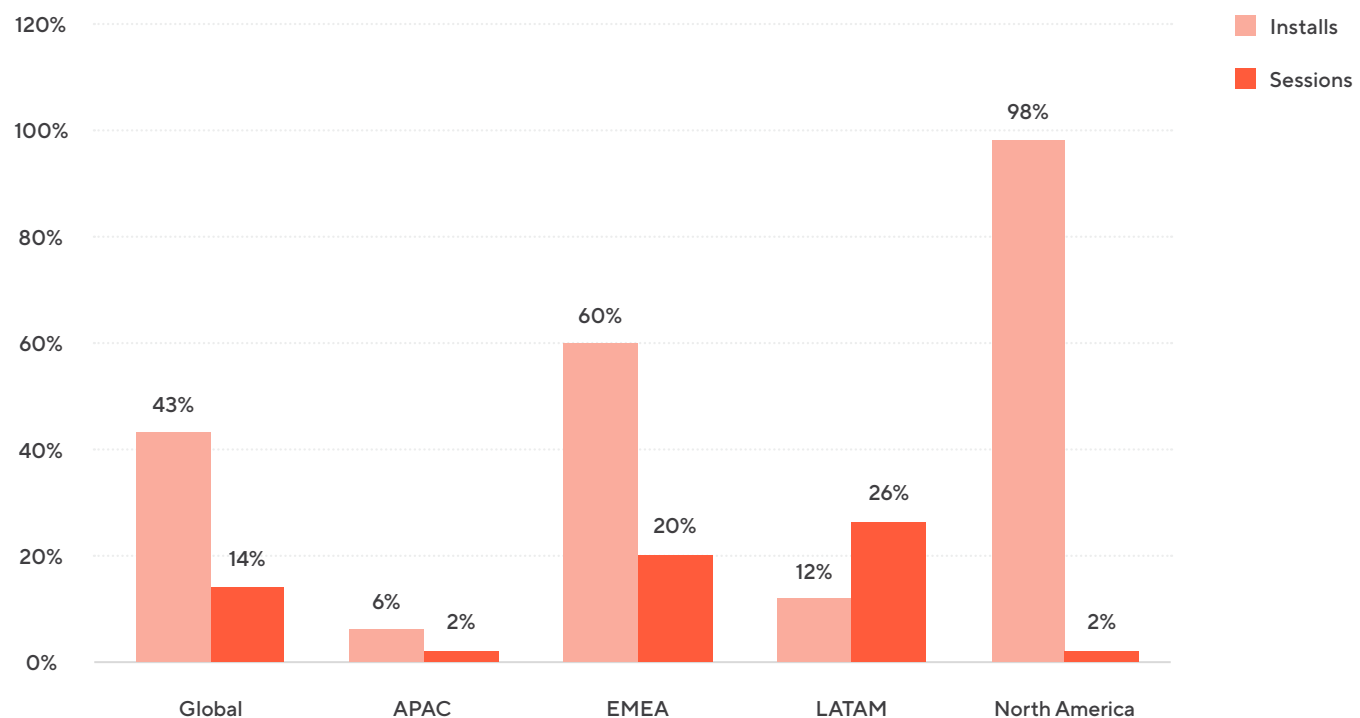
E-commerce app session lengths 2022-2023

E-commerce app sessions per user per day 2023

Globally, average session lengths for e-commerce apps dropped in 2023, down from 11.2 minutes per session to 10.1. The only region to see an increase was LATAM, up from 8.4 to 8.6. EMEA's sessions maintained a steady 11.2 minutes, which is also the longest average length recorded in 2023. North America dropped marginally from 10.1 to 10 minutes. The big increase in sessions coupled with this backward trend in lengths suggests an overall improvement in path to conversion or in models requiring shorter sessions.
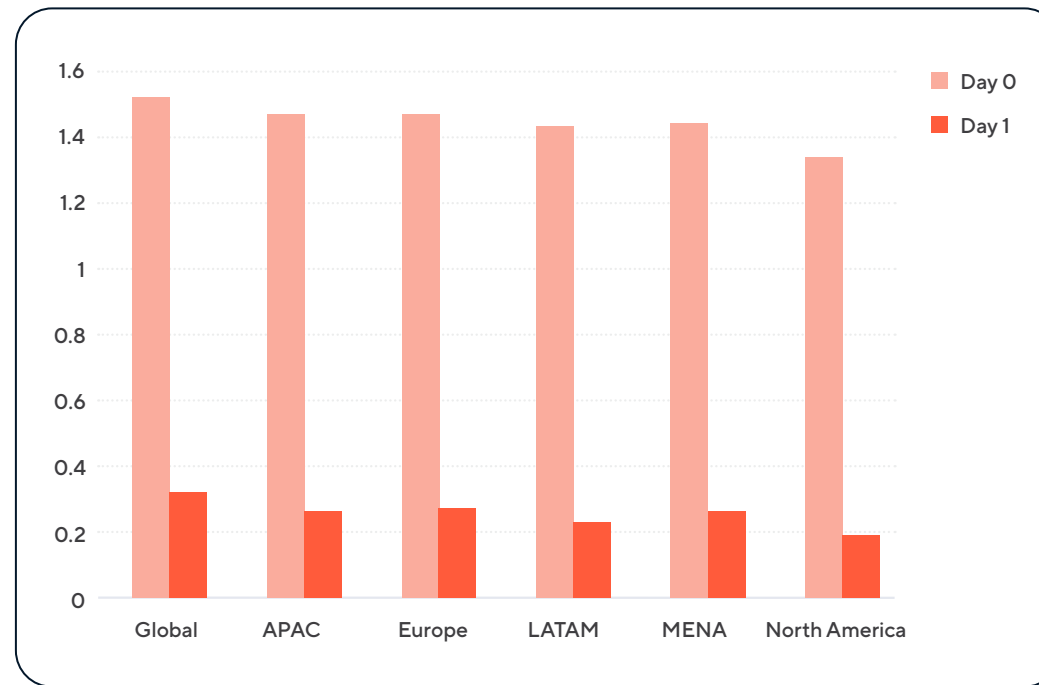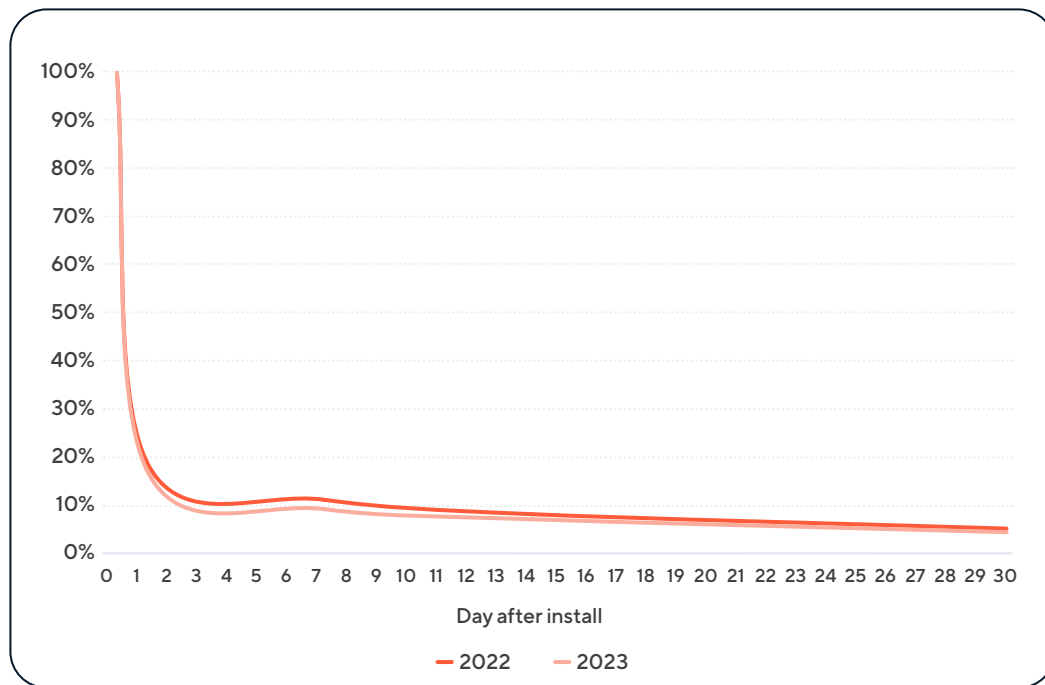
E-commerce apps worldwide recorded an average of 1.52 sessions per user on day 0 and 0.32 on day 1, indicating initial exploration (and hopefully early conversion) followed by a quick decline in engagement. This trend was even more pronounced in North America, where users started with an average of 1.34 sessions on day 0, and just 0.19 on day 1. Marketers should work to find the balance between pushing for conversion on the all-important day 0 while also engaging users longer term. Again, personalization and analyzing segment-based behaviors will unlock this strategic ability.
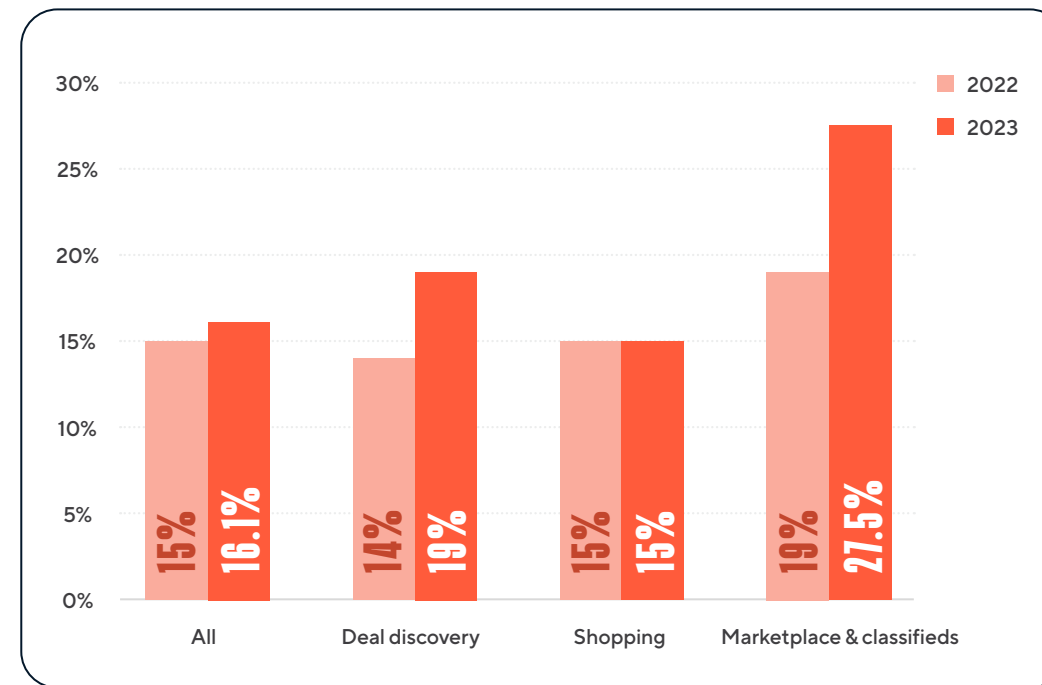
E-commerce app retention rates 2022 - 2023 (Global)

Day after install
— 2022 — 2023

E-commerce app stickiness 2022 - 2023 (Global)

- 2022
- 2023

	All	Deal discovery	Shopping	Marketplace & classifieds
2022	15%	14%	15%	19%
2023	16.1%	19%	15%	27.5%

In line with the retention trends seen across the board, e-commerce experienced a slight dip, with its day 1 rate down from 19% to 17.3%. By day 7, the figures dropped from 11% to 9%, day 14 from 8% to 7%, and day 30 from 5% to 4.2%.

Also in line with app industry trends in general and despite the retention drop, e-commerce app stickiness improved significantly in 2023, increasing from a median 15% to 16.1%. Marketplace and classifieds apps saw the biggest jump (from 19% to 27.5%), which maps to the share of sessions (62%) that this category represents within the e-commerce data set, as a high portion of its installs (a lower share) are converting into MAUs.
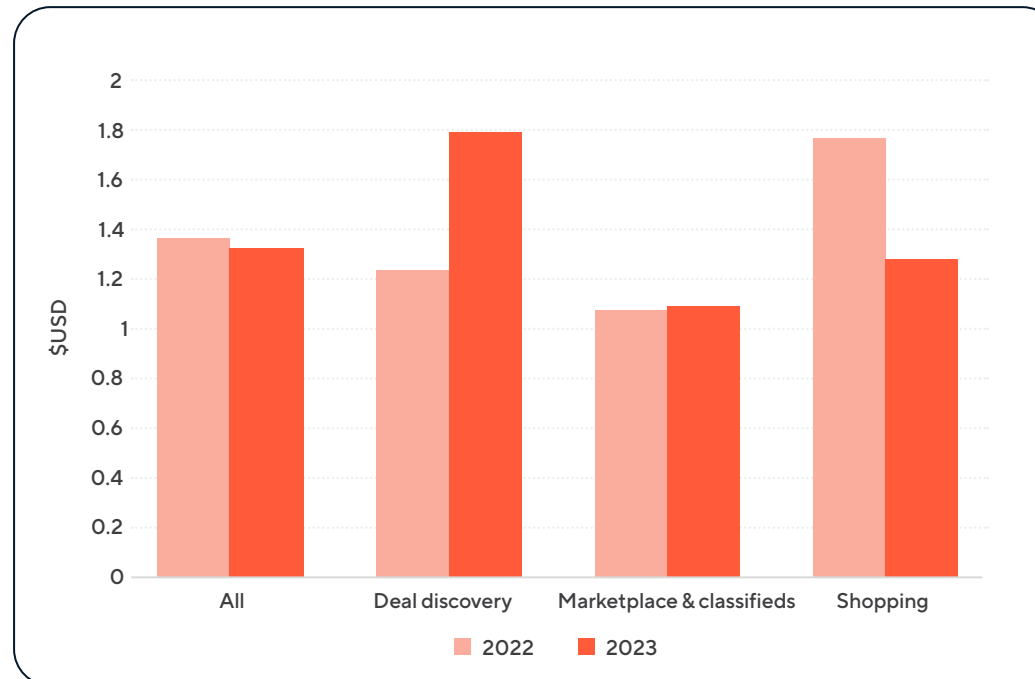
BONUS

In 2023, Europe had the highest day 1 retention rate for e-commerce apps at 17.5%, followed closely by MENA at 16.5%. APAC and LATAM were tied, each with a retention rate of 16%, while North America was considerably lower at 12%.
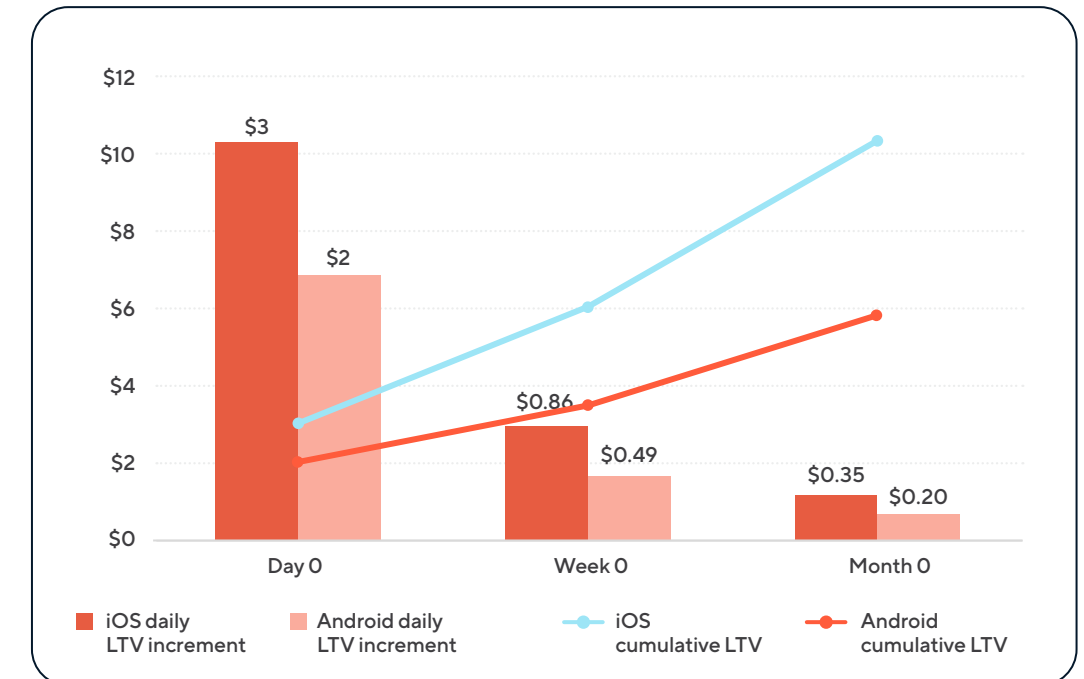
Cost per install decreased slightly globally for e-commerce apps in 2023, dropping from a median of $1.37 per install to $1.33— a small but positive signal for the vertical considering the large uptick in installs— meaning marketers are acquiring higher volumes of users at lower prices. Shopping apps saw the biggest decrease, down from $1.78 to $1.29 while deal discovery was the only subvertical to increase, up a significant $0.56 per install.

In terms of how much LTV these installs are generating, the landscape for e-commerce was also very positive in 2023. On day 0, both iOS and Android median revenue generated is higher than the cost of the acquisition. By week 0, daily increments of $0.86 and $0.49 are added, respectively, and by month 0, the median LTV for iOS users sits at $10.35 and $5.85 for Android users.

## E-commerce app eCPI 2022 - 2023 (Global)

Legend: 2022, 2023

E-commerce app LTV over 30 days (Global)

Legend: iOS daily LTV increment, Android daily LTV increment, iOS cumulative LTV, Android cumulative LTV

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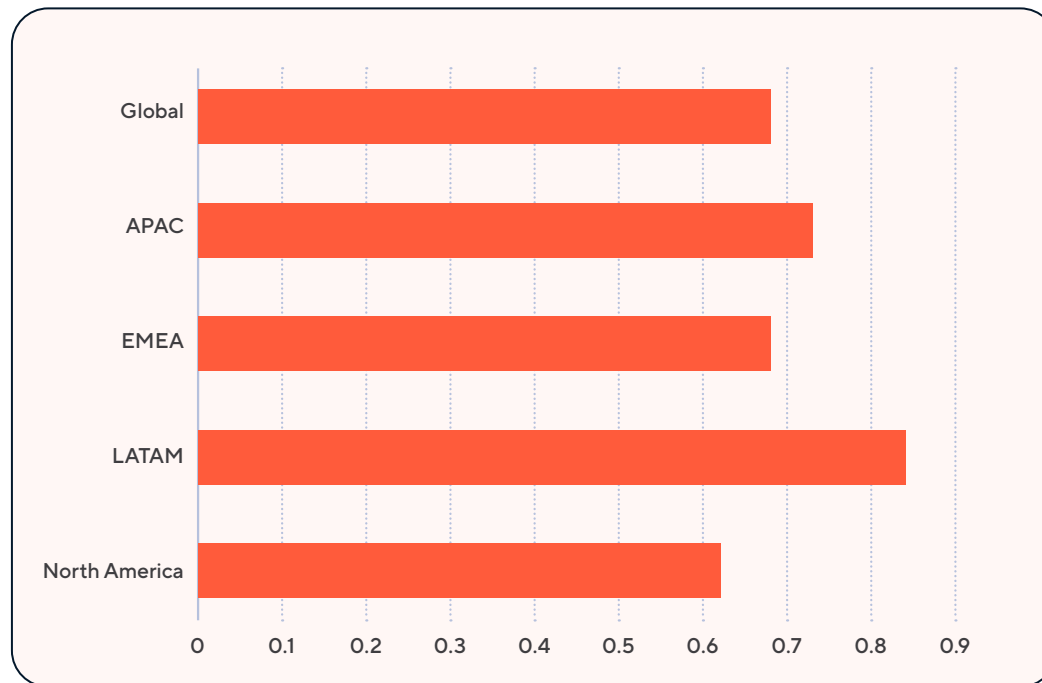"Acquiring high-value users begins with an effective channel acquisition strategy. **Marketers must understand the channels compatible with their specific app's audience and goals.** Then, they need to determine their budget and how much they need to spend to hit a critical mass of experiments that can drive more efficient performance."
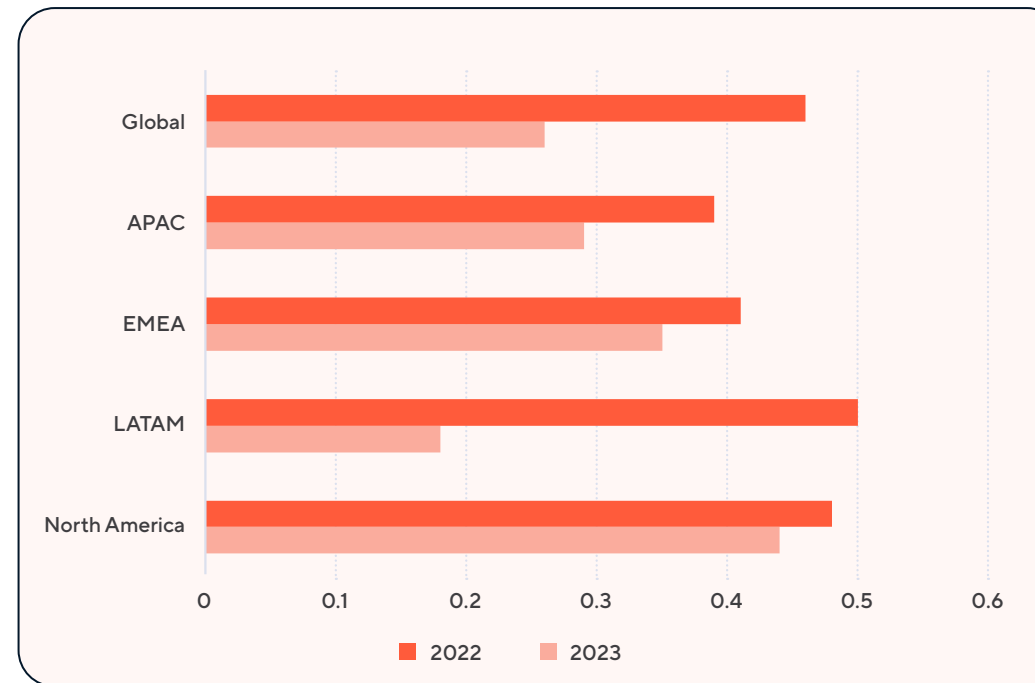
APPLOVIN
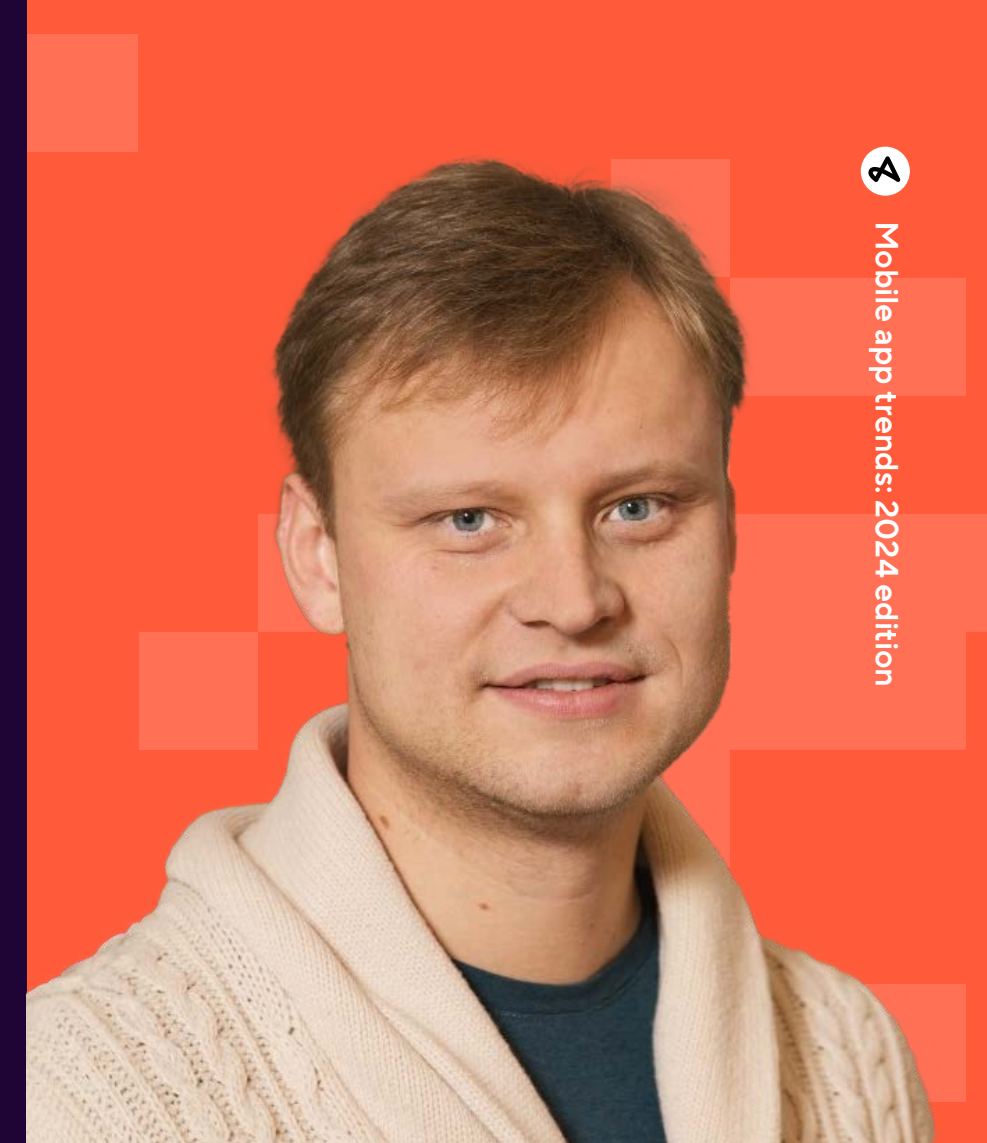
Andrey Kazakov
**VP of Demand,
Non-Gaming**

E-commerce app paid/organic ratio 2023

E-commerce app reattribution share 2022 - 2023

In 2023, marketplace apps had a reattribution rate of 0.31 (above the global average for 2023) and saw a significant rise in its paid vs. organic install ratio, which increased from 0.25 in 2022 to 0.72.

In 2023, e-commerce apps globally recorded a organic to paid install ratio of 0.68. Regionally, LATAM had the highest ratio at 0.84, APAC had a ratio of 0.73, EMEA equaled the global average of 0.68, and North America had the lowest ratio at 0.62, suggesting a more balanced approach between paid and organic installs than other regions. That being said, Adjust data shows that with the right strategy, paid installs to e-commerce apps prove ROI very quickly.

There was a marked global downturn in reattributions for e-commerce apps in 2023, with the rate falling from 0.46 to 0.25. Regionally, LATAM experienced the most significant decline, with reattributions decreasing from 0.5 to 0.18 in 2023. North America witnessed the least decline, dropping from 0.48 to 0.44. This smaller decrease suggests a higher emphasis being placed on returning users in the market as part of UA strategies. Seasonality around Q4 in the market (Black Friday, Cyber Monday, and the holidays in general) often serves to reactivate large swathes of dormant users.

Among all of the UA success for e-commerce apps in 2023, interestingly, they also decreased their median number of partners worked with from five to four. At subvertical level, deal discovery and marketplace apps followed this trend, each collaborating with four partners. Shopping worked with slightly more partners, down from just over five to almost exactly five per app.

Since January 2022, in-app e-commerce revenue has consistently increased. In 2023, it grew by a significant 34% YoY. This growth accelerated in the vertical's all-important November, which was another 34% above the year's average, and December, up 21%. The spikes in the latter part of the year reflect the key shopping events cited regarding the uptick in reattributions—Black Friday, Cyber Monday, and the holiday season in general.

E-commerce partners per app
2022 - 2023 (Global)

Legend: 2022, 2023
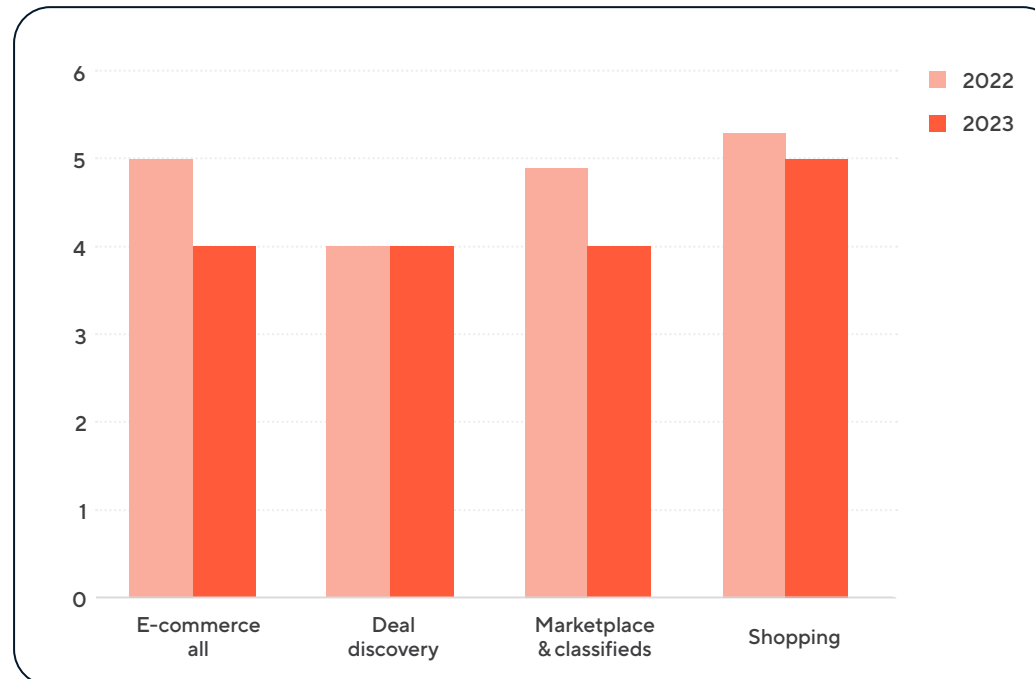
E-commerce in-app revenue
## January 2022 - December 2023 (Global)
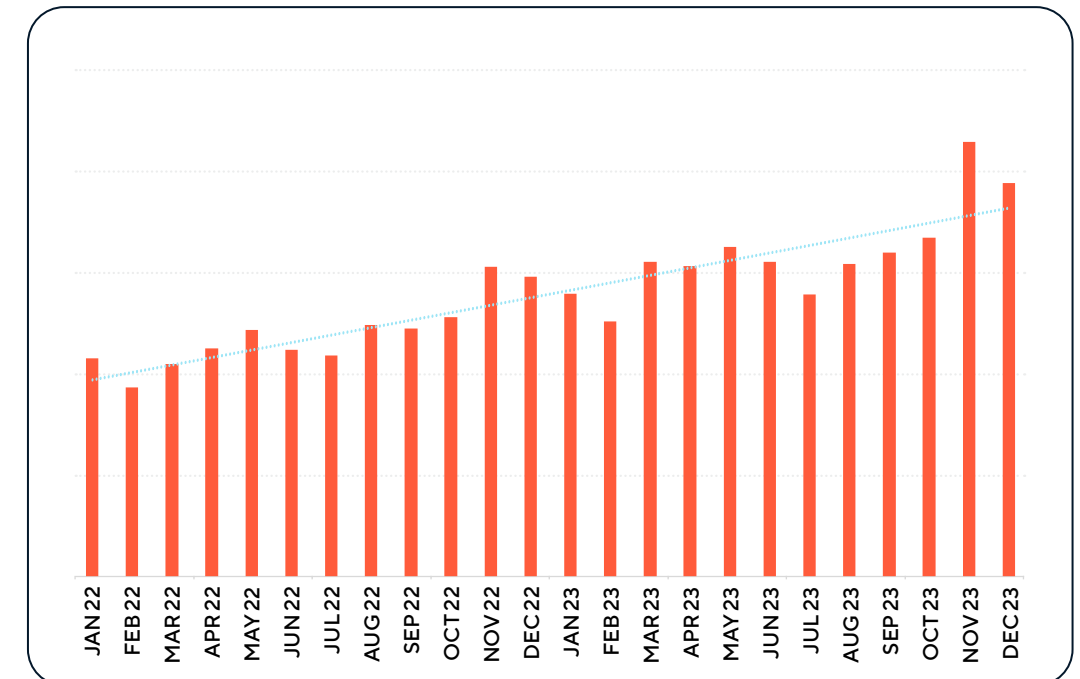
CONCLUSION

Embracing new technologies to power unparalleled growth

Success in the mobile app marketing landscape requires precise and swift decision making. This means that marketers and developers need the tools, technologies, and partners that enable them to make these decisions with utmost confidence. Our data and insights have demonstrated that despite some recent areas of degrowth—particularly in the mobile gaming vertical—app performance and mobile's ability to deliver significant returns is as strong as ever. And despite intense competition, the space is still full of potential and untapped areas of opportunity.

As privacy changes and regulations continue to change the methodological approaches we take to app marketing and measurement, AI will play a pivotal role in every aspect of our development as an industry. Those who prioritize intelligently integrating it into their marketing and attribution efforts now will see the biggest payoff, and will position themselves ahead of the competition. The goal should be to understand the benchmarks of success, actively diversify your media mix, explore new channels, and onboard technologies that empower you to measure everything, everywhere.

Predictive analytics and automated workflows, combined with incrementality and media mix modeling, give a 360-degree view of your marketing efforts, bringing crystal clear clarity into which channels and platforms should be scaled and which should be paused. This framework is more than just a strategic approach, it's the future of modern growth marketing and measurement. It's the key to overcoming any obstacles that stand in the way of sustained growth, on any channel, and at any time.

Adjust and AppLovin are proud to stand at the forefront of these next-gen developments as we empower our clients, partners, and the industry at large to take these pivotal next steps together. To learn more about how our cutting-edge solutions can benefit your app business, reach out to hear more, or request a demo today.
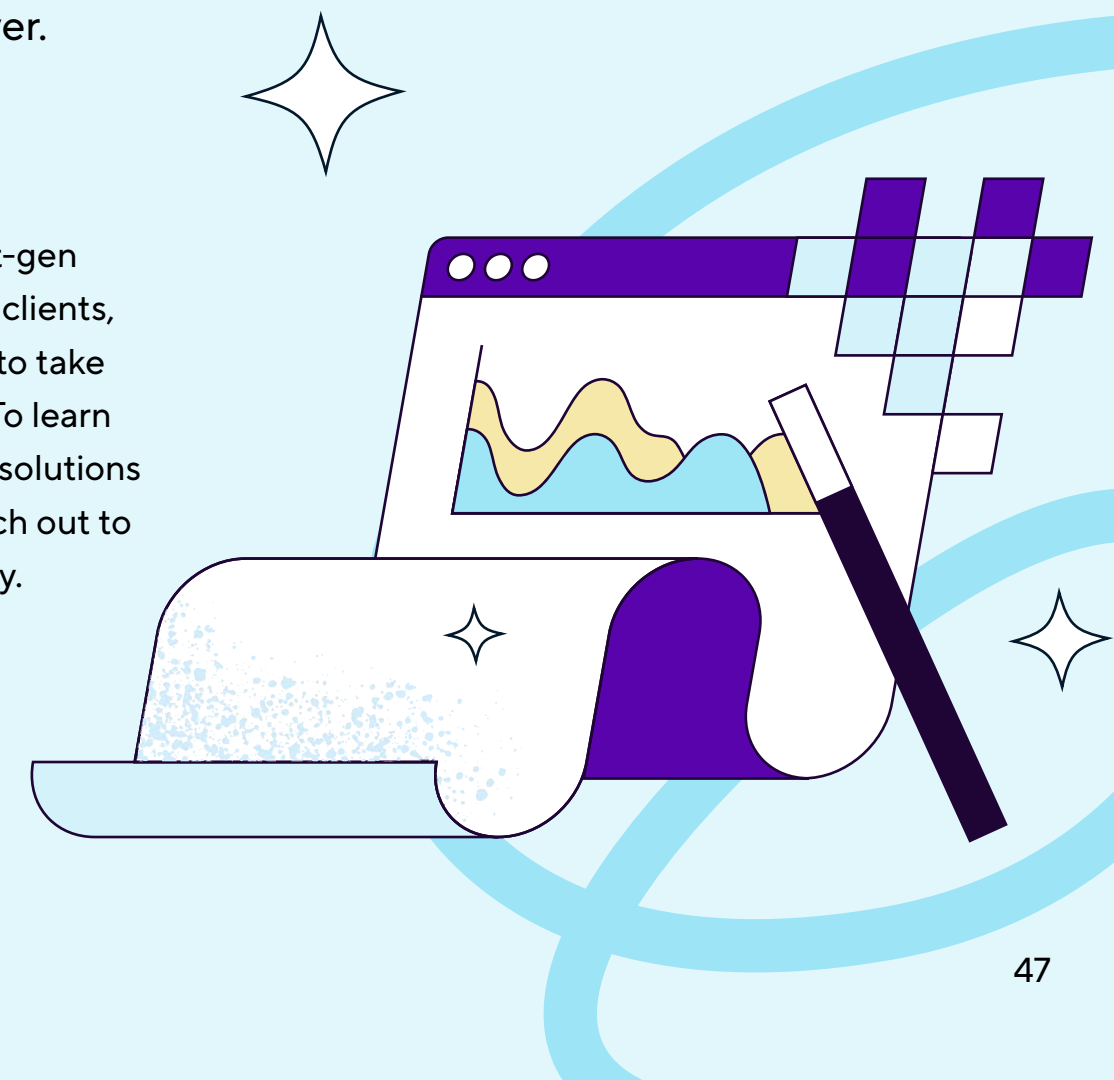
ADJUST

ABOUT ADJUST

Adjust, an AppLovin (NASDAQ: APP) company, is trusted by marketers around the world to measure and grow their apps across platforms, from mobile to CTV and beyond. Adjust works with companies at every stage of the app marketing journey, from fast-growing digital brands to brick-and-mortar companies launching their first apps. Adjust's powerful measurement and analytics suite provides visibility, insights and essential tools that drive better results.

Learn more about Adjust at:
www.adjust.com

in adjust.com   X @adjustcom

APPLOVIN

ABOUT APPLOVIN

AppLovin makes technologies that help businesses of every size connect to their ideal customers. The company provides end-to-end software and AI solutions for businesses to reach, monetize and grow their global audiences.

For more information about AppLovin, visit:
www.applovin.com

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