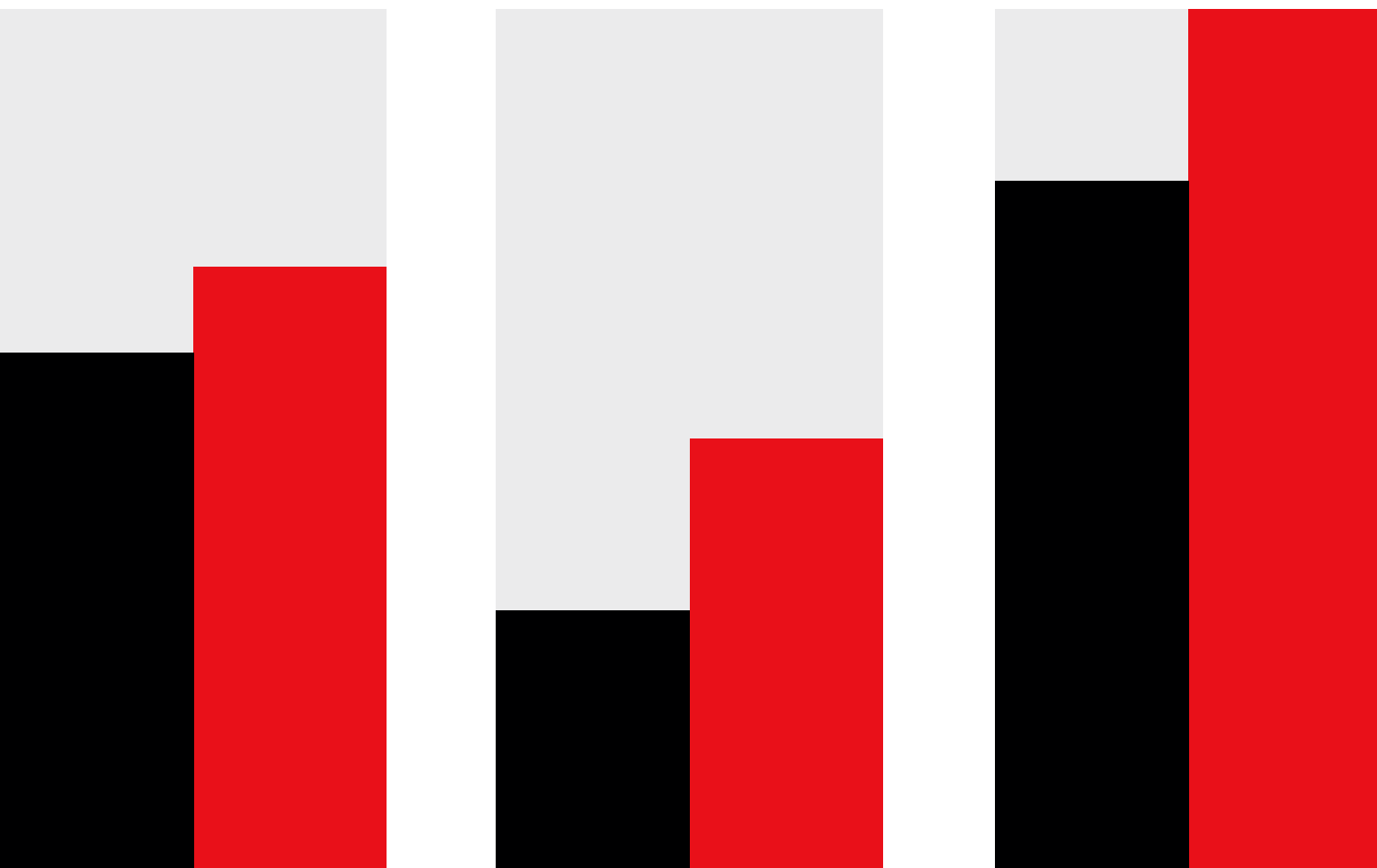# Mobile Advertising Outlook 2021

10 Predictions for a (Hopefully) Post-Pandemic Year

Mobile Advertising Outlook 2021: 10 Predictions for a (Hopefully) Post-Pandemic Year

2020 is a reminder that making predictions is filled with uncertainties. We'll try again this year to predict some major stories in mobile advertising in 2021.

How has the coronavirus pandemic changed mobile advertising?

The pandemic has had two major effects on mobile. First, it has accelerated behavioral shifts among users, including increased video streaming, gaming, and mobile shopping. Second, it has accelerated innovation, with advertisers exploring new platforms, and publishers creating new products to address shifting behavioral patterns.

How will iOS 14 affect mobile marketing?

Most attention paid to iOS 14 is on the App Tracking Transparency framework, which will compel app developers to notify users if they want to track and share their data using Identifier for Advertisers (IDFA). This will make personalized advertising and attribution more difficult, but also accelerate the shift from waterfall auctions to contextual advertising. iOS 14 also adds a new category for location tracking, which gives users the chance to opt in to imprecise location tracking.

## How will new US regulatory policies influence mobile advertising?

The election of a new administration will lead to more regulations. A federal data privacy bill is possible, as is increased scrutiny on the uses of biometric and location data, which may lead to more regulatory focus on bid-stream siphoning.

WHAT'S IN THIS REPORT? This report explains our 10 predictions for the mobile advertising landscape next year, and the reasoning behind them.

KEY STAT: The coronavirus pandemic dampened growth in US mobile ad spending, but due to increased mobile usage, we now expect mobile ad spending to hit $156.38 billion by 2023, edging out our pre-pandemic figure of $155.26 billion.

How Has the Forecast for Mobile Ad Spending in the US Changed? 2019-2024
billions, March 2020 vs. Oct 2020
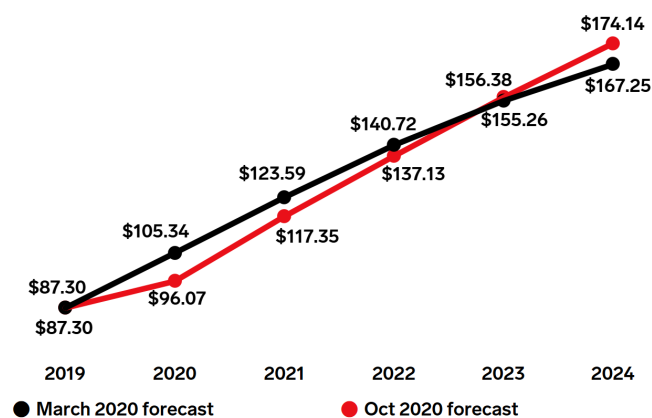
Note: includes classifieds, display (banners and other, rich media and video), email, lead generation, messaging-based and search advertising; includes ad spending on tablets
Source: eMarketer, October 2020

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A year ago, it was impossible to foresee how much life would change, and it's a good reminder that predictions always have caveats. Even so, long-term trends combined with short-term, pandemic-induced changes—and a new administration—point to 2021 being a dynamic year for mobile advertising. In this report, we make 10 predictions for a year that will hopefully be less tumultuous.

Trend No. 1: The Pandemic Shifted Consumer Behavior in Ways that Will Accelerate Mobile Ad Spend Growth

This year, the average US adult will spend an average of 25 additional minutes on apps year over year (YoY). Most gains will become permanent in 2021, when US adults will average an additional 6 minutes on their phones. Although long-term trends explain the majority of this increase, the pandemic clearly boosted growth, particularly in mobile activities like video streaming, gaming, mobile shopping, and digital health. The average US adult will spend an additional 11 minutes daily with social media apps this year.

Mobile App Activities: Average Time Spent in the US, 2018-2022
hrs:mins per day among population

	2018	2019	2020	2021	2022
Audio	0:51	0:57	0:59	1:03	1:05
Social networks	0:38	0:41	0:52	0:51	0:53
Video	0:32	0:36	0:46	0:47	0:48
Games	0:21	0:23	0:26	0:26	0:26
Messaging	0:18	0:20	0:24	0:24	0:24
Other	0:15	0:19	0:16	0:18	0:19
Total	**2:49**	**3:10**	**3:35**	**3:41**	**3:47**

Note: ages 18+; includes all time spent with mobile apps, regardless of multitasking; for example, 1 hour of multitasking with social network apps while listening to mobile audio apps counts as 1 hour for social and 1 hour for audio; numbers may not add up to total due to rounding
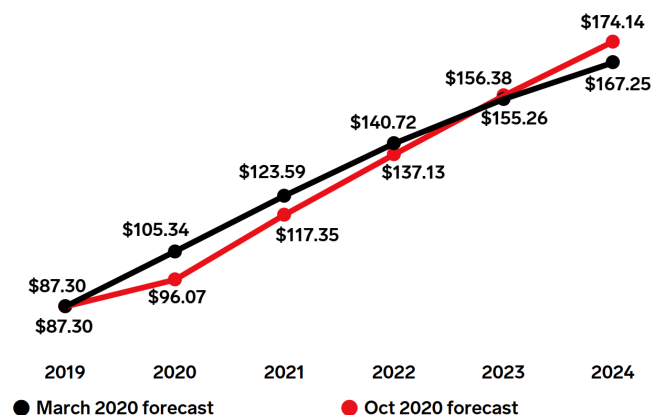*Source: eMarketer, April 2020*
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It's not just that existing users are spending more time in apps, but certain app categories have seen a large increase in users amid the pandemic. Our August 2020 forecast estimates that 207.5 million Americans will use subscription OTT services this year, up 13.1% YoY and up 8 percentage points from our February forecast. Video game viewer and live video audience numbers also accelerated.

Although some of these changes will fade post-pandemic, others will persist, including increased digital video viewing and ecommerce adoption, and these behavioral changes will continue to boost time spent with mobile. This should translate into rapid growth in mobile advertising in the coming years. We anticipate that mobile ad spend will not only return to high growth rates in 2021, but total mobile advertising will actually exceed our pre-pandemic predictions by 2023.

Next year, US mobile ad spending will increase 22.2% to $117.35 billion. This is still below our pre-pandemic forecast ($123.59 billion), but by 2023, mobile ad spending will reach $156.38 billion, edging out our previous figure ($155.26 billion). In 2024, spend will total $174.14 billion, compared with our pre-pandemic estimate of $167.25 billion.

How Has the Forecast for Mobile Ad Spending in the US Changed? 2019-2024
billions, March 2020 vs. Oct 2020

Legend: ● March 2020 forecast   ● Oct 2020 forecast

Data points (March 2020 forecast): 2019 $87.30, 2020 $105.34, 2021 $123.59, 2022 $140.72, 2023 $155.26, 2024 $167.25

Data points (Oct 2020 forecast): 2019 $87.30, 2020 $96.07, 2021 $117.35, 2022 $137.13, 2023 $156.38, 2024 $174.14

Note: includes classifieds, display (banners and other, rich media and video), email, lead generation, messaging-based and search advertising; includes ad spending on tablets
Source: eMarketer, October 2020
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Daniel Taiz, president and COO of digital video optimization service Penthera, noted that the pandemic has hastened the shift from pay TV to OTT. "That was probably coming already, but [the pandemic] accelerated it ... in a way that's not going to go back," he said.

Trend No. 2: App Clips Will Shift App Install Advertising

With iOS 14, Apple introduced App Clips, temporary pieces of apps that users can almost seamlessly download to perform a quick action without committing to the full app. Examples might include an Apple Pay-enabled checkout page or a takeout order page, all in native code pulled from a larger app.

Android has a similar product called Instant Apps, but App Clips should have broader consumer and developer uptake because 1) the Apple ecosystem revolves more around apps than the web, and 2) Apple has made the connection seamless between a call to action—such as those accompanied by a QR code, deep link, or a place card (business information page) in Apple Maps—and the specific page in an app.

It's still very early days for App Clips, and it will take a while for brands and app developers to learn to use them effectively. But they can potentially change how they think about app installs. They reduce the importance of downloading the full app by making key parts of the app experience more accessible. "Apple believes App Clips are not for 'trying out' an app, but a quick and easy way to perform a 'here and now' action," said Tal Raviv, senior product manager at mobile attribution platform AppsFlyer.

App Clips arrived when many brands have already shifted their marketing away from full app downloads. Some quick-service restaurants (QSRs) and retailers, for instance, now offer discounts to sandwiches or products that are redeemable on their websites, which is a notable shift in the past year, according to Jonathan Harrop, senior director of global marketing and communications at app marketing and monetization platform AdColony. "There's no App Store middleman," he said. "It's a much closer instant gratification outside of the app space. I think ... a lot of brand advertisers are going to push for [that]."

App Clips make this call to action easier and should reduce the emphasis on app install advertising for brands with a presence in the physical world. Retailers, for instance, are heavily reliant on install advertising—65% of shopping apps were paid installs in 2019, according to research published in April 2020 from mobile measurement company Adjust.

Mobile App Performance Metrics Worldwide: Paid vs. Organic Share of Installs for Select App Categories, 2018 & 2019
% of total

	2018		2019	
	Paid installs	**Organic installs**	**Paid installs**	**Organic installs**
Shopping	61%	39%	65%	35%
Casual games	46%	54%	39%	61%
Music	30%	70%	20%	80%
Marketplace & classifieds	27%	73%	20%	80%
Mid-core games	25%	75%	24%	76%
Video streaming	18%	82%	12%	88%
Sports games	15%	85%	16%	84%

Note: represents activity on Adjust's platform, broader industry metrics may vary
Source: Adjust, "App Trends 2020: A global benchmark of app performance"; eMarketer calculations, April 21, 2020
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Some of this advertising may now shift to direct product advertising or downloadable coupons redeemable within App Clips. More in-store calls to action via QR codes are also likely.

"It will put more of an emphasis on the activation phase—giving people value before they commit to the full app," Raviv said. "More brands will ask themselves, 'How can we give fast value to the user, since that's going to be the growing expectation?' It will also put more emphasis on real-world contexts and owned media—physical, QR codes, NFC, print, point of sale, and maps—by making those channels far more relevant and smoother to activate."

Trend No. 3: iOS 14 Will Accelerate the Shift from Waterfall Auctions

Most web-based programmatic advertising made the switch from waterfall setups to header bidding years ago, while adoption of unified auctions among apps has remained limited. That will change in 2021, driven by iOS 14's App Tracking Transparency framework.

App-based programmatic advertising has traditionally followed the ad waterfall model of buying, in which app developers request bids sequentially from a hierarchy of ad networks. Like similar setups on the web, app-based programmatic waterfalls lack transparency, and this often results in a lower price for publishers than would be available in a real-time unified auction, where the highest bid wins regardless of its source. In web environments, these unified auctions are executed through header bidding. Apps don't have a header, and the industry uses a variety of terms for the process including mobile header bidding, in-app bidding, and app bidding.

The waterfall has faded in importance on the web, but it's still a large part of in-app programmatic due to greater technological challenges, primarily around reconciling different ad network software development kits (SDKs), which are necessary to load ads in apps.

Currently, many of the big mobile ad networks have about 50% to 70% of their impressions in unified auctions according to industry sources, representing a steady increase in recent years. PubMatic released data showing that 59% of header bidding ad spending was on mobile devices in Q2 2020, up from 41% in Q2 2019. It also reported that in-app mobile header bidding grew 26% YoY in Q2 2020, while mobile web header bidding increased 18% over the same period.

Programmatic Ad Benchmarks Worldwide: Header Bidding Ad Spending Share, Mobile vs. Desktop, Q2 2019 & Q2 2020

% of total

Q2 2019 — Mobile 41%, Desktop 59%
Q2 2020 — Mobile 59%, Desktop 41%
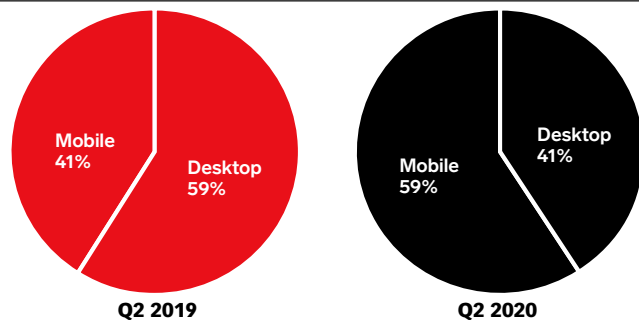
Note: represents advertiser activity via PubMatic, broader industry metrics may vary; mobile includes apps and web
Source: PubMatic, "Q2 2020 Quarterly Mobile Index," Aug 20, 2020

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There are some holdouts among large publishers, which still resist implementing header bidding. In fact, among large publishers surveyed by Advertiser Perceptions in H1 2020, only 39% used mobile header bidding, down from 53% in H1 2019.

iOS 14 should accelerate the pivot from waterfalls, since they rely on historic average effective cost per thousand (eCPM) pricing paid by ad networks, which becomes less accurate with the lack of detail coming via Apple's attribution system, SKAdNetwork. That also limits the viability of "eCPM floors" for networks. That is, ad networks have "ad zones" where they're willing to buy ads, but they stop buying ads when the eCPM goes below a certain level. "Right now, with a lot of publishers still on the waterfall method, they have line items and ad zones," said Rina Matsumoto, senior product manager at mobile ad and app optimization platform Vungle. "And so, with each line item, we don't know where to attribute it on the network side … without that level of granularity from SKAdNetwork."

Facebook already said it will accelerate plans to move away from the waterfall in Facebook Ad Network in response to iOS 14, with all ads filled via bidding by Q2 2021. It found that publishers earn up to 27% more average revenue per daily active user (ARPDAU) using bidding versus the waterfall and that they reduce time spent on ad operations by up to 50%.

"There's going to be no good reason to be monetized through waterfall unless you're using a platform that does not support [header bidding]," said Yevgeny Peres, vice president of growth at mobile ad and app monetization platform ironSource. "I think 2021 will be the year when in-app bidding is going to cross 90% to 95% adoption probably."

The same dynamics will likely also shift more advertising into private marketplaces. "[In these partnerships], the supply and demand side trust each other; they understand the terms of the agreement," said Kevin Hunt, senior vice president of global marketing at video ad serving platform SpotX. "They understand what the transparency is going to be and how they're going to communicate the value of those users. They get into a private marketplace and do a deal."

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Trend No. 4: Local Search Will Recover Strongly

During the pandemic, consumers made fewer local searches, and local search advertising dropped dramatically. Some formats, such as local inventory ads (LIAs) and Google Map Ads, dropped between 75% and 100% in Q2, and they have still not fully recovered, according to Merkle data published in October.

US Google Shopping Ad Performance Metrics: Local Inventory Ad (LIA) Click Share, Jan 1, 2020-Sep 30, 2020
% of total

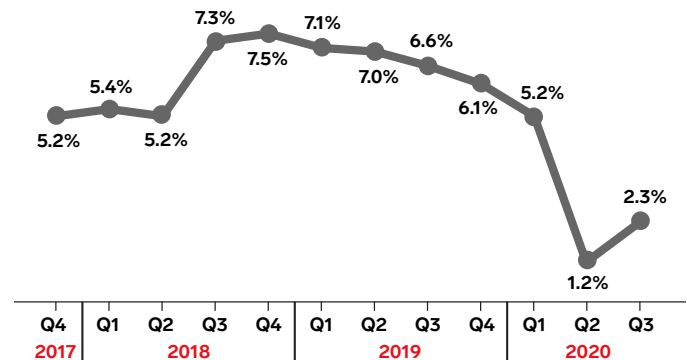|	
Jan 1, 2020	28%
Feb 1, 2020	25%
March 1, 2020	25%
April 1, 2020	0%
May 1, 2020	0%
June 1, 2020	6%
July 1, 2020	11%
Aug 1, 2020	11%
Sep 1, 2020	9%
Sep 30, 2020	8%
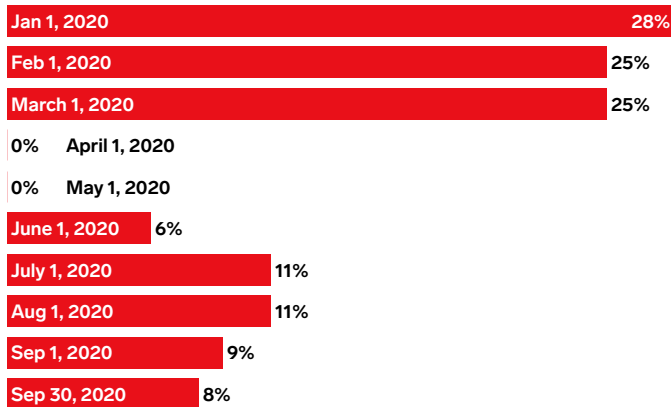
Note: based on campaigns analyzed by Merkle, broader industry metrics may vary; data represents a snapshot of each individual day shown
Source: Merkle, "Digital Marketing Report Q3 2020", Oct 27, 2020

The LIA click share remained suppressed in Q3, although the Google Map share rebounded somewhat by the end of September to 2.3%.

Google Mobile Text Ad Performance Metrics in North America: "Get Location Details" Click Share, Q4 2017-Q3 2020
% of total

Q4 2017: 5.2%, Q1 2018: 5.4%, Q2 2018: 5.2%, Q3 2018: 7.3%, Q4 2018: 7.5%, Q1 2019: 7.1%, Q2 2019: 7.0%, Q3 2019: 6.6%, Q4 2019: 6.1%, Q1 2020: 5.2%, Q2 2020: 1.2%, Q3 2020: 2.3%

Note: based on campaigns analyzed by Merkle, broader industry metrics may vary
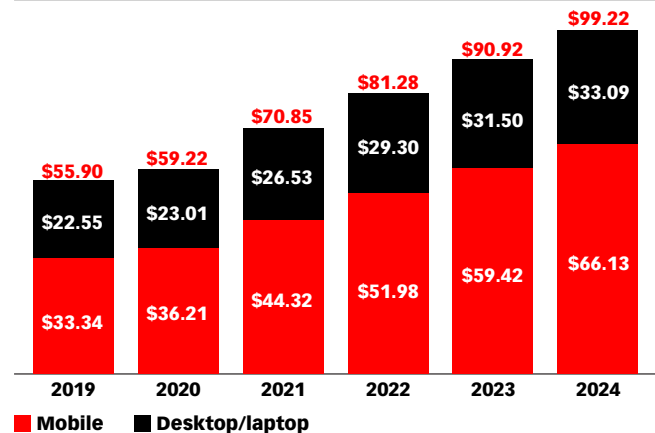*Source: Merkle, "Digital Marketing Report Q3 2020," Oct 27, 2020*

Several factors should lead to a recovery in local search in 2021. First, the overall search market should be strong. We expect US mobile search ad spending to increase 22.4% to $44.32 billion.

Search Ad Spending in the US, by Device, 2019-2024
billions

	2019	2020	2021	2022	2023	2024
Total	$55.90	$59.22	$70.85	$81.28	$90.92	$99.22
Desktop/laptop	$22.55	$23.01	$26.53	$29.30	$31.50	$33.09
Mobile	$33.34	$36.21	$44.32	$51.98	$59.42	$66.13

■ Mobile   ■ Desktop/laptop

Note: includes advertising that appears based on specified keywords or search terms in response to a user's query; includes paid listings, paid inclusion, and contextual text links; examples include text ads in Google search results, Product Listing Ads in Google search results, and Amazon Sponsored Products and Sponsored Brands; numbers may not add up to total due to rounding
Source: eMarketer, Oct 2020

Second, the economic turmoil has caused havoc in retail, and many stores have closed. Yelp found that, by the end of August, nearly 100,000 businesses had closed permanently because of the pandemic. As consumers begin shopping again, they will look for alternatives. And those alternatives will most likely be nearby (or online). The results of a June 2020 survey by local social networking platform Nextdoor found that 72% of its members expected to visit local businesses more often post-pandemic.

"People will be supportive of local businesses that are taking the right measures," said Christel Sonnekalb, director of global partner marketing at location marketing cloud provider Uberall. "Local information accuracy, and the features [related to consumer safety], will be more crucial than ever."

Finally, consumer search patterns during the pandemic led to deeper dives into local businesses and tapped different parameters in Google My Business, the business profile Google taps for local search. They researched pickup and delivery options, foot traffic, and available inventory.

Google continues to build out the attributes businesses can list, from sanitary policies to ownership information.

"In Google Maps and Google My Business, they're rolling out the features to support the trends that are happening around businesses that are not features and functions of a business," said Krystal Taing, solutions engineer for strategic partnerships in North America at Uberall. "They've got features that say this business is woman-led, veteran-led, or black-owned—those things that categorize businesses beyond what they do."

Taing expected virtual services associated with a local business to become a big growth area in 2021.

Trend No. 5: iPhone 12 Will Supercharge Mobile AR

The iPhone 12 Pro became the first phone to have a back-facing Light Detection and Ranging (Lidar) camera, which enables more sophisticated augmented reality (AR). (Top-end Android phones use a similar Time-of-Flight, or ToF sensor.) Lidar can near-instantaneously detect depth and size, allowing for rapid and very detailed mixed reality functions for apps, such as furniture placement or full-body Snapchat Lenses. This should supercharge mobile AR spending and make such ads more feasible.

Before the iPhone 12 was released, AR advertising grew from about half a billion dollars in global revenues in 2019 to $1.41 billion this year, according to information from AR research firm ARtillery Intelligence. Driven by social media advertising, such as Snapchat Lenses—and strong results for brand advertisers—that figure should surpass $8 billion by 2024.

For more information on AR products in social media, read our August 2020 report, **"Augmented Reality in Social Media: It's Growing Up, and the Pandemic Is Playing a Role."**

Mobile AR Advertising Revenues Worldwide, 2019-2024
billions

2019	2020	2021	2022	2023	2024
$0.51	$1.41	$2.38	$3.70	$5.57	$8.02
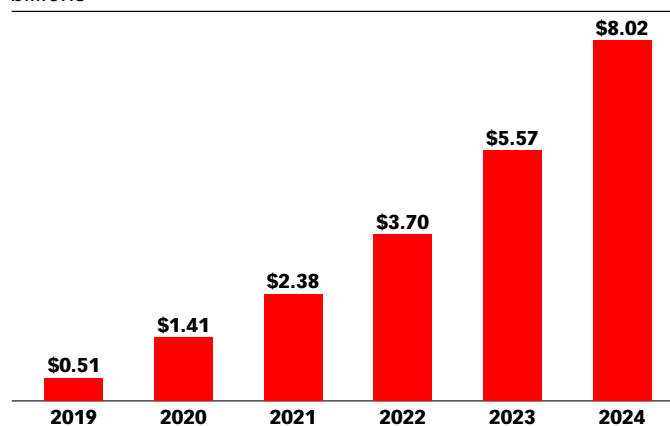
Source: ARtillery Intelligence and Thrive Analytics, "AR Usage & Consumer Attitudes, Wave III," June 9, 2020

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By reducing the effort needed to measure the spatial dimensions of a room and place objects at the right scale in the right place, Lidar makes AR more accessible. "It's going to be able to create these experience that don't require much of the user to jump through all those hoops, which I think is going to be required to get AR closer to the mainstream," said Michael Boland, CEO and chief analyst at ARtillery Intelligence. "It'll allow what we've seen so far with the front-facing camera, and the success we've had with social selfie lenses, to now expand to a broader canvas."

Beyond social media and the potential for Lidar, AR advertising is set to grow. Consumers are beginning to see ads that include AR features, such as an option for a user to test a lipstick or insert a car into a picture.

"AR is early, and there is a lot of growth opportunity," said Stephen Upstone, founder and CEO of video advertising and optimization platform LoopMe.

Lastly, visual search lets users identify items or places with their camera and offers information or links. In October, Google stated that its visual search tool Lens could identify 15 billion objects, up from 1 billion two years ago. It has not announced any visual search ad products and is unlikely to do so in 2021, but those features will arrive once visual search becomes more established. Some may incorporate AR elements in the future, such as ratings for businesses along a streetscape.

Trend No. 6: Regulations Will Further Squeeze the Supply of Precise Location Data

The location data industry has already faced some challenges in recent years. iOS 13, released in 2019, included an opt-in window for location tracking, which dramatically reduced the quantity of precise location data from iOS devices. iOS 14 goes further, giving users more options by letting them choose between sharing approximate or precise data.

On the regulatory side, the EU General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA) define location data as personal data that requires that a user opts in for collection and transparent tracking of who gets the data. The newly passed California Privacy Rights Act (CPRA) goes a step further and considers precise geolocation data as sensitive personal data requiring even more stringent protections.

These regulations will reduce the amount of precise geolocation data available to marketers, but further scrutiny is likely on the way with a new administration and growing number of members of Congress with a deepening interest in regulating consumer data.

Today, much of location data is gathered via the bid-stream in open auctions. Any demand-side platform (DSP) participating in an auction can collect the location data from the supply side, even if it is not the winning bid. This process of collecting data downstream from the original publishers is rarely understood by consumers and barely regulated in the US (outside of California), which has led to some dubious uses of location data.

The New York Times opinion section, for instance, was able to identify individuals from supposedly anonymized location data. More recently, a study from mobile data firm Mobilewalla revealed demographic characteristics of Black Lives Matter (BLM) protests, sparking backlash.

In response to the investigation, Sens. Elizabeth Warren and Ron Wyden asked the company and Federal Trade Commission (FTC) about the bid-stream syphoning. Separately, the Federal Communications Commission (FCC) said it was looking at bid-stream syphoning by large telecom companies.

Another big source of location data comes directly from SDKs in apps. Consumers have more control over this data collection, but not over its ultimate uses. A recent case showed how one location company sold location data it gathered from a Muslim prayer app to a US security agency.

Sen. Wyden has proposed legislation restricting location data usage. More generally, various data privacy bills circulating in Congress define precise location data as sensitive personal data. Given the incoming Biden Administration's general approval of privacy restrictions, it's likely that more regulations on location data—either as a general consumer data privacy bill or more narrow bills focused on location data—are on their way. According to a March 2020 Morning Consult survey, nearly half (45%) of US adults were "very uncomfortable" with technology companies sharing location data with the government.

US Adults' Comfort with Technology Companies Sharing Location Data with the Government to Track Americans' Locations, by Generation, March 2020
% of respondents in each group

1 Very comfortable	4 Very uncomfortable
2 Somewhat comfortable	5 Don't know/no opinion
3 Somewhat uncomfortable	

	1	2	3	4	5
Gen Z (18-22)	5%	15%	25%	42%	13%
Millennial (23-38)	13%	17%	20%	44%	6%
Gen X (39-54)	8%	12%	24%	47%	9%
Baby boomers (55-73)	9%	19%	21%	44%	6%
Total	**9%**	**16%**	**22%**	**45%**	**8%**

Note: numbers may not add up to 100% due to rounding
Source: Morning Consult, "National Tracking Poll #200383," March 23, 2020
255385   www.**eMarketer**.com

Moreover, brands facing brand-safety questions will likely demand transparency from location data providers on how the data has been collected, whether it has clear opt-ins, and guidelines for how it is used.

"As consent becomes more prevalent in a location space, more brands will be interested in the quality of data they get and where it's derived from when planning location activity," said Mark Slade, CEO of Location Sciences, a location data verification service.

Trend No. 7: iOS 14 Makes First 24 Hours After Install More Important

iOS 14 brings several changes for mobile advertisers, the biggest of which is the increased importance of SKAdNetwork, the attribution tool for installs Apple introduced in 2018. Without access to IDFA, mobile developers, advertisers, and ad networks will need to plug in to SKAdNetwork, which provides aggregated data back to networks. Apple ensures anonymity through a series of reporting delays.

The SKAdNetwork attributes an installation to an ad within another app. That's all it reports in its most basic functionality, and it reports the installation with no user-level information after two delays. First, a 24-hour timer starts when the app is initially installed and launched. After that timer expires, there's a 24-hour window during which the SKAdNetwork reports the install, attributed to the given ad campaign.
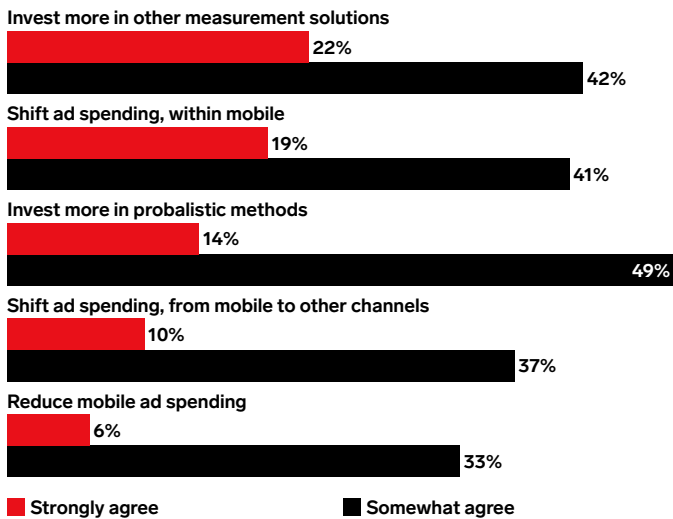
Advertisers can specify additional conversion events they want the SKAdNetwork to report to help them optimize their app install campaigns. For example, reaching the second level of a game, making a purchase, or signing up for an account could be seen as conversion events, and the SKAdNetwork would attribute an installation to the given ad campaign, but also that the installation had led to the relevant conversion event within 24 hours. This could allow advertisers to optimize toward campaigns that were driving installations with higher lifetime values.

But if advertisers use conversion events, the 24-hour timer resets each time the next one is reached. If advertisers want to check for a series of conversion events that might take place over a period of time, they won't learn anything about the app install until 24 to 48 hours after the last conversion event is measured. This limits optimization opportunities. Encouraging the relevant post-install actions as soon as possible will give advertisers relevant data quickly under SKAdNetwork.

The 24-hour window is also crucial for a few reasons. First, the lack of a deterministic connection between a user and an action that the IDFA enabled raises the importance of probabilistic links. A September 2020 Mobile Marketing Association (MMA) and AppsFlyer survey found that 63% of mobile advertisers worldwide were at least somewhat likely to use probabilistic links to measure the correlation between anonymized users and actions. These probabilistic links become less reliable by the hour.

What Actions Do Mobile Marketers Worldwide Intend to Take in Response to Apple's Planned Changes to Identifier for Advertisers (IDFA)?
% of respondents, Sep 2020

Invest more in other measurement solutions
22%
42%

Shift ad spending, within mobile
19%
41%

Invest more in probalistic methods
14%
49%

Shift ad spending, from mobile to other channels
10%
37%

Reduce mobile ad spending
6%
33%

■ Strongly agree   ■ Somewhat agree

Source: AppsFlyer and Mobile Marketing Association (MMA), "Apple, IDFA and iOS14: New Challenges, New Opportunities for Marketers," Nov 17, 2020

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Finally, subscriptions have become more important. The number of apps using subscriptions has grown 40% YoY, per AppsFlyer. One of the best ways to gain users to a subscription is to offer a free preview, and then convert the user.
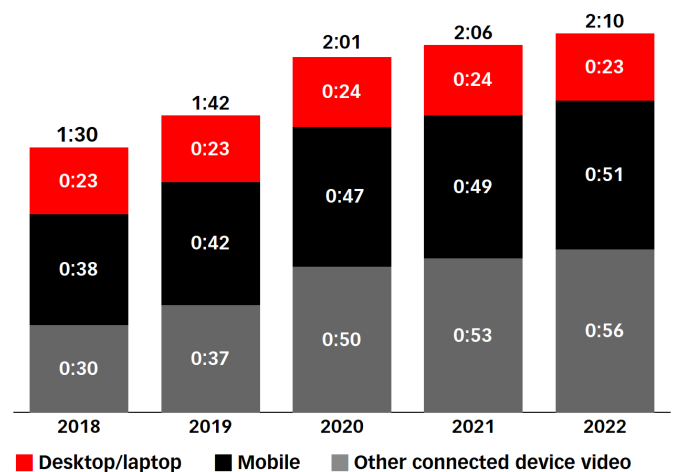
"You can capture that user on the first day, show them the value, and get them to subscribe for a free trial," ironSource's Peres said. "The first 24 hours are critical, and that's also when most subscriptions happen."

Trend No. 8: Mobile Will Gain More Premium OTT Minutes

As people hunkered down at home during the pandemic, they spent a lot more time viewing digital video. As a result, US adults spent 19 additional minutes on average watching digital video this year, including 5 more minutes on mobile (and 10 minutes in apps as browser video minutes dropped, not shown in the chart below). The biggest source of increased viewing, however, was "other connected devices," which primarily refers to connected TVs (CTVs).

Digital Video: Average Time Spent in the US, by Device, 2018-2022
hrs:mins per day among population

Year	Desktop/laptop	Mobile	Other connected device video	Total
2018	0:23	0:38	0:30	1:30
2019	0:23	0:42	0:37	1:42
2020	0:24	0:47	0:50	2:01
2021	0:24	0:49	0:53	2:06
2022	0:23	0:51	0:56	2:10

■ Desktop/laptop   ■ Mobile   ■ Other connected device video

Note: ages 18+; includes all time spent viewing video via desktop/laptop computers, mobile (smartphones and tablets), and other connected devices (game consoles, connected TVs or OTT devices), regardless of multitasking; numbers may not add up to total due to rounding
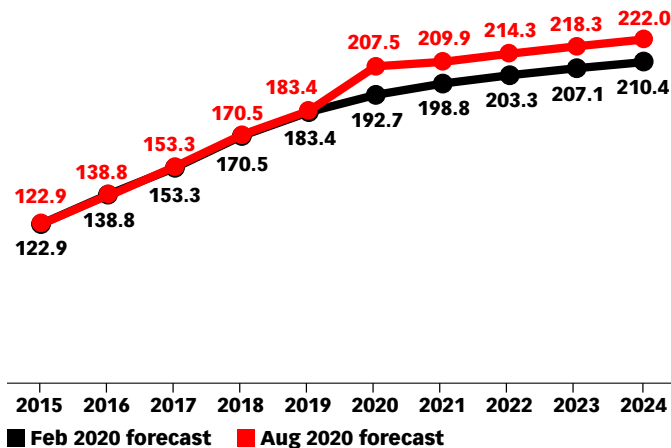*Source: eMarketer, April 2020*

T10949   www.**eMarketer**.com

All service types gained, but OTT video grew tremendously. Premium subscription services, such as Netflix, Disney+, and Hulu, have increased their viewer numbers by 13.1% in 2020, a significantly bigger growth rate than we anticipated pre-pandemic.

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How Has the US Subscription OTT Video Viewer Forecast Changed?
millions, 2015-2024

Aug 2020 forecast: 122.9, 138.8, 153.3, 170.5, 183.4, 207.5, 209.9, 214.3, 218.3, 222.0

Feb 2020 forecast: 122.9, 138.8, 153.3, 170.5, 183.4, 192.7, 198.8, 203.3, 207.1, 210.4

2015 2016 2017 2018 2019 2020 2021 2022 2023 2024

■ Feb 2020 forecast ■ Aug 2020 forecast

Note: individuals of any age who watch video via any app or website at least once per month that provides paid subscription access to streaming video content over the internet and bypasses traditional distribution; examples include Amazon Prime Video, HBO Now, Hulu, Netflix, Sling TV, and YouTube Premium
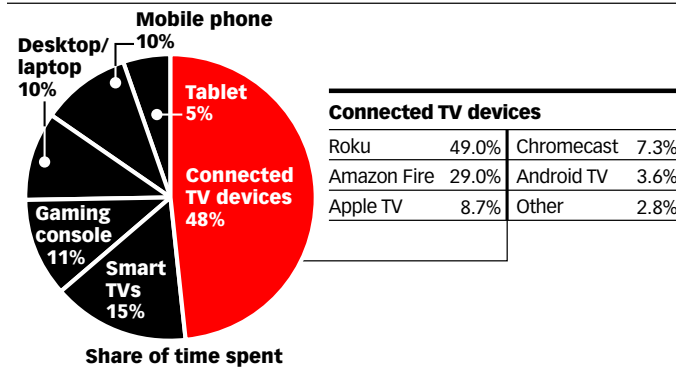*Source: eMarketer, Aug 2020*

The majority of premium OTT viewing is on CTV devices like Roku or smart TVs that connect directly to the internet. Conviva found that 63% of streaming OTT viewing occurred on these devices in Q2 2020, compared with 10% on mobile and 5% on tablets.

Share of Time Spent Viewing OTT Streaming Video Worldwide, by Device, Q2 2020
% of total

Desktop/laptop 10%
Mobile phone 10%
Tablet 5%
Connected TV devices 48%
Smart TVs 15%
Gaming console 11%

Connected TV devices

Roku	49.0%	Chromecast	7.3%
Amazon Fire	29.0%	Android TV	3.6%
Apple TV	8.7%	Other	2.8%

Share of time spent

Note: represents activity tracked by Conviva, broader industry metrics may vary; numbers may not add up to 100% due to rounding
Source: Conviva, "State of Streaming Q2 2020," Aug 6, 2020

Advertisers noticed and will pour more than $8 billion into CTV ad spending, up 27.1% YoY. Advertisers mostly spend money in OTT based on audiences rather than target specifically by device. But as mobile minutes for OTT services increase, so should spending within mobile. "Whether in the living room or on the move, mobile is an increasingly important component in the OTT mix," said Katie Madding, chief product officer of Adjust.

In 2021, more OTT video should occur on mobile for three reasons. First is the growth of ad-supported video-on-demand (AVOD). MoffetNathanson Research found that five leading AVOD platforms saw revenues grew a combined 31% YoY in Q2, albeit from a smaller base than subscription video-on-demand (SVOD) platforms have. "AVOD skews more to mobile than SVOD networks," said Tal Chalozin, co-founder and chief technical officer of digital video advertising company Innovid. "For example, Tubi and Pluto TV have higher exposure to mobile than the TV networks, such as the AMC app, the Hulu app, and the like." He estimates that while less than 10% of time spent with Hulu would be on mobile devices, Tubi's figure would be "much, much larger than that."

Second, people will begin to move around more post-pandemic, which should increase mobile viewing. "When people start going back to normal—traveling to work, cafes, and so forth—mobile will play a bigger role because on the way to the office, they will watch on their mobile device," said Jonas Olsen, vice president of video at programmatic advertising company PubMatic.

Finally, better cellular networks, including early 5G, and better download options will make the mobile viewing experience better. "The real innovation here is how robust mobile has access to bandwidth to have an essentially TV-like viewing experience," SpotX's Hunt said. "Removing buffering, removing some of the ad decisioning that needed to be done on the mobile device, is instead done server side—so you're getting a constant stream of content, all facilitated on the back of high-speed networks, with the most recent being 5G."

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Trend No. 9: Turmoil in Casual Game Market Will Open Opportunities for Brands

Like OTT video, mobile gaming has thrived during the pandemic. Downloads of casual games—generally free-to-play games with simple structures that are primarily monetized with ads—grew 45% YoY in H1 2020, according to app analytics provider App Annie.

It also found that casual games accounted for 82% of game downloads worldwide in 2019. But even as they are booming now, casual games face turmoil with the arrival of iOS 14.

Casual games make money by selling many ads, often at a high ad-load, over a short user life span. Casual-game developers gain users by buying app install ads for a shade below what they expect to gain from selling ads over the lifetime of the user. It's a low-margin business model that's based on an understanding of the lifetime value of their users and ad prices available in other games.

Once the IDFA opt-in becomes mandatory in iOS 14 and publishers rely on SKAdNetwork data, this business model will be much more difficult to sustain. Advertisers likely won't pay as much to reach casual-game app users who aren't identifiable and trackable across apps, which will lead to lower CPMs. That means the lifetime value of those users will decrease—and the difficulty of identifying and targeting users will make it hard for the apps to acquire new users. And the difficulty of measuring and attribution results across channels will make it harder to do any of it profitably. Business models forged under the assumption of user-level attribution will no longer work.

This probably won't kill the casual-game market, but it will lead to an adjustment period as games find a new equilibrium. "I think they're going to evolve to be more complex," said Paul Bowen, general manager at marketing intelligence platform AlgoLift by Vungle. "[They begin with] this really easy-to-understand concept and then introduce more complex elements of the game later." Bowen pointed to Angry Birds as an example of this process.

Lower CPMs may also attract brands, which have already expressed more interest in games in light of the user engagement during the pandemic. "With that reduction in IDFA-based eCPMs, a lot of brands are suddenly more competitive," AdColony's Harrop said. "I think you'll start to see a better mix of ads in most apps."

Finally, some developers and game publishers may have a loyal audience that they can get a high enough opt-in rate to IDFA under App Tracking Transparency to maintain their current models. "The more established you are and the better relationship you have, the easier it's going to be," Harrop said.

Trend No. 10: In-App Contextual Advertising Will Take a Big Step Forward

In light of the pending deprecation of third-party cookies and other identifiers, contextual advertising has risen in the web world—but it's still difficult within the app ecosystem, partly because there's no easy way to crawl content. In 2021, more publishers will adopt or develop contextual tools that will work in app environments.

Large publishers have started using first-party data to create cohorts based on demographics and interests, and they've also built contextual advertising solutions. The New York Times and The Washington Post, for instance, have introduced a range of contextual products that code content by topic and user consumption patterns. Along with the cohorts they are developing, they have powerful contextual targeting engines.

Other firms have brought contextual targeting to web ad exchanges. These companies crawl pages to understand the content, traffic, and other elements of web pages, but this approach doesn't work for apps. Contextual advertiser solutions that delve into app-based publisher content must be implemented by the app developers themselves.

Meanwhile, the app advertising system continues to look for signals that can provide a degree of contextual analysis without a deeper dive into the content. A lot of this starts with cohort analysis, but it can add other signals to create fairly sophisticated targeting that doesn't require a personal ID. "When you start to overlay all the different apps and sites with all the different identifiers, households, locations, and contexts, an AI-driven model will always have a lot more to work on in flight to optimize, to see what's working compared to some kind of segment-driven approach," LoopMe's Upstone said.

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Contextual advertising's attractiveness will lead to more contextual ad products in 2021, including turn-key solutions for smaller app developers to activate their own content and first-party data.

eMarketer Interviews

Mark Ballard
Vice President, Research
Merkle
Interviewed November 13, 2020

Michael Boland
CEO and Chief Analyst
ARtillery Intelligence
Interviewed November 12, 2020

Paul Bowen
General Manager
AlgoLift by Vungle
Interviewed November 10, 2020

Tal Chalozin
Co-Founder and Chief Technical Officer
Innovid
Interviewed November 13, 2020

Chris Costello
Senior Director, Marketing Research
Kenshoo
Interviewed November 12, 2020

Jonathan Harrop
Senior Director,
Global Marketing and Communications
AdColony
Interviewed November 10, 2020

Kevin Hunt
Senior Vice President, Global Marketing
SpotX
Interviewed November 10, 2020

Katie Madding
Chief Product Officer
Adjust
Interviewed December 7, 2020

Rina Matsumoto
Senior Product Manager
Vungle
Interviewed November 10, 2020

Jonas Olsen
Vice President, Video
PubMatic
Interviewed November 13, 2020

Yevgeny Peres
Vice President, Growth
ironSource
Interviewed November 3, 2020

Tal Raviv
Senior Product Manager
AppsFlyer
Interviewed November 12, 2020

Mark Slade
CEO
Location Sciences
Interviewed November 6, 2020

Christel Sonnekalb
Director, Global Partner Marketing
Uberall
Interviewed November 17, 2020

Neil Sweeney
Founder
Killi
Interviewed November 6, 2020

Krystal Taing
Solutions Engineer for Strategic Partnerships, North America
Uberall
Interviewed November 17, 2020

Daniel Taiz
President and COO
Penthera
Interviewed November 10, 2020

Stephen Upstone
Founder and CEO
LoopMe
Interviewed November 10, 2020

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