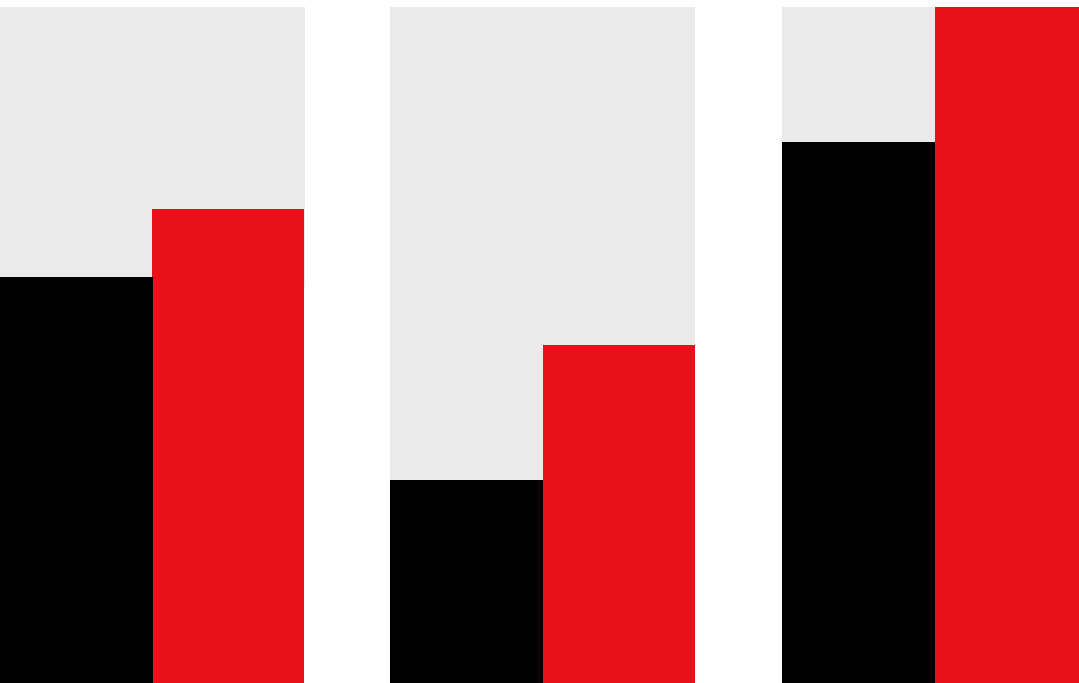


US Programmatic Digital Display Advertising Outlook 2021

Spending and Trends

Various forms of automated trading have dominated digital display advertising for years, and programmatic will continue gaining ground this year in pockets where it's less penetrated, including on connected TV (CTV) devices and in digital audio ads. This eMarketer Report looks at our latest estimates for US programmatic digital display ad spending, as well as a discussion of four important trends in the market that will continue driving allocations this year.



presented by



Dear eMarketer Reader,

eMarketer is pleased to make this report, **US Programmatic Digital Display Advertising Outlook 2021: Spending and Trends**, available to our readers.

This report features eMarketer data and insights, our latest estimates for US programmatic digital display ad spending, as well as a discussion of four important trends in the market that will continue driving allocations this year.

We invite you to learn more about [eMarketer's approach to research](#) and why we are considered the industry standard by the world's leading brands, media companies, and agencies.

We thank you for your interest in our report and **Adtaxi** for making it possible to offer it to you today.

Best Regards,

Nancy Taffera-Santos

Nancy Taffera-Santos
SVP, Media Solutions & Strategy, eMarketer

US Programmatic Digital Display Advertising Outlook 2021: Spending and Trends

Various forms of automated trading have dominated digital display advertising for years, and programmatic will continue gaining ground this year in pockets where it's less penetrated, including on connected TV (CTV) devices and in digital audio ads.

How has our outlook for US programmatic ad spending changed since the pandemic?

In July 2020, we made significant cuts to our pre-pandemic forecast. However, major digital ad sellers reported better-than-expected results throughout the summer. US programmatic digital display ad spending grew more than 10% in 2020 and will rebound to 24.1% growth in 2021.

What are the fastest-growing areas of programmatic display in the US?

Broken out by device, programmatic ad spending will grow fastest on CTV, where we predict 52.9% growth in 2021. In terms of formats, video will continue to drive faster growth than nonvideo display across all devices. Another rapidly growing area is digital audio services advertising, including podcast advertising—but here, the base level of spending remains comparatively tiny.

What major trends will influence how advertisers allocate programmatic budgets in 2021 and beyond?

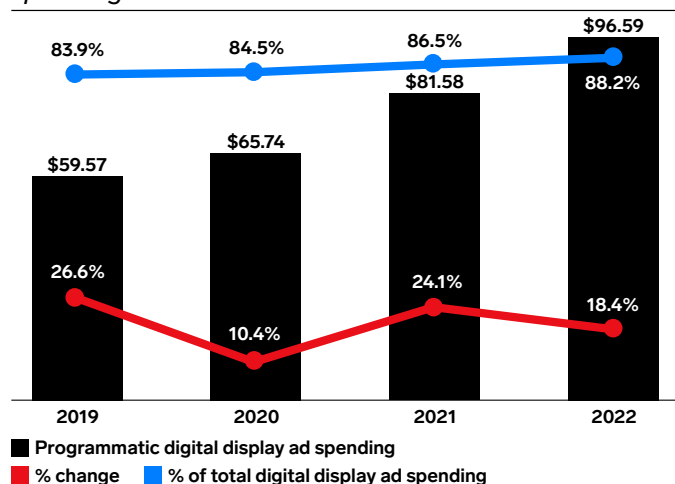
Infrastructural changes, including the deprecation of third-party cookies in Chrome and changes to Apple's Identifier for Advertisers (IDFA), will shake up the programmatic media ecosystem. Consumer behavior shifts are also driving advertiser allocations, including the increasing time spent with video streaming services (often at the expense of linear TV) and the popularity of mobile gaming.

WHAT'S IN THIS REPORT? This report includes our latest estimates for US programmatic digital display ad spending, as well as a discussion of four important trends in the market in 2020 that will continue driving allocations this year.

KEY STAT: Advertisers increased their spending on programmatic digital ads in the US by 10.4% in 2020—better than the 6.2% growth we expected in the middle of 2020—and will continue to pour more dollars into display formats, especially video, bought through automated means.

US Programmatic Digital Display Ad Spending, 2019-2022

billions, % change, and % of digital display ad spending



Note: digital display ads transacted and fulfilled via automation, including everything from publisher-erected APIs to more standardized RTB technology; includes native ads and ads on social networks like Facebook and Twitter; includes advertising that appears on desktop/laptop computers, mobile phones, tablets, and other internet-connected devices
Source: eMarketer, Oct 2020

261907

eMarketer | InsiderIntelligence.com

Contents

- 3 US Programmatic Digital Display Advertising Outlook 2021: Spending and Trends
- 4 US Programmatic Digital Display Ad Spending
- 11 The Identity Crisis
- 12 Programmatic CTV Video Advertising Soars
- 13 Mobile In-Game Advertising Gains Appeal
- 14 The K-Shaped Recovery for Brand vs. Performance Advertising
- 15 Key Takeaways
- 15 Glossary
- 17 eMarketer Interviews
- 18 Editorial and Production Contributors

US Programmatic Digital Display Ad Spending

In 2020, advertisers increased their spending on programmatically traded display ads in the US by 10.4%—significantly below trend, but better than the 6.2% growth we had predicted in our July 2020 forecast. Growth will rebound to 24.1% this year as the recovery from the pandemic continues and programmatic expands to account for 86.5% of all US digital display ad spending.

A Note on This Forecast

This report includes our October 2020 estimates of US programmatic digital display ad spending. Our prior forecast was published in July 2020, based on estimated 5.5% growth for total digital display advertising—including programmatic and nonprogrammatic transactions. We revised that underlying estimate up to 9.6% in October due to better-than-expected results from major digital ad sellers. The programmatic breakouts here have mostly been revised upward as a result.

Our complete estimates for US programmatic digital display ad spending can be found in this report's [accompanying spreadsheet](#).

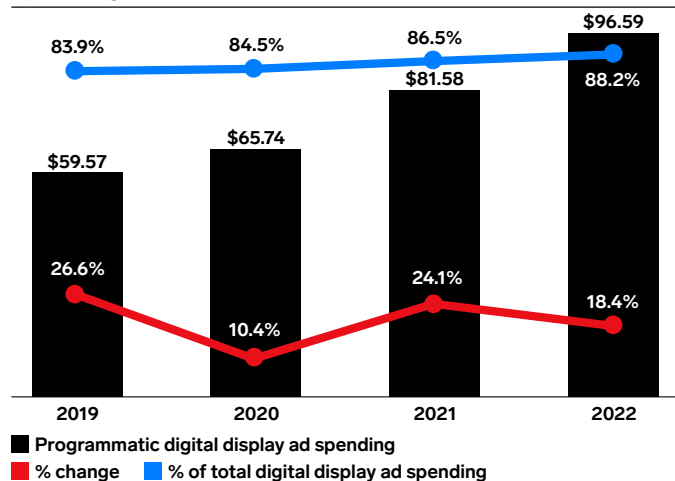
Behind the Numbers

eMarketer's forecasts and estimates are based on an analysis of quantitative and qualitative data from research firms, government agencies, media firms, and public companies, plus interviews with top executives at publishers, ad buyers, and agencies. Data is weighted based on methodology and soundness. Each eMarketer forecast fits within the larger matrix of all its forecasts, with the same assumptions and general framework used to project figures in a wide variety of areas. Regular re-evaluation of available data means the forecasts reflect the latest business developments, technology trends, and economic changes.

In 2021, we expect US programmatic digital display ad spending to reach \$81.58 billion. Back in July, our expectation for 2021 was strong, but we didn't predict spending would surpass \$80 billion.

US Programmatic Digital Display Ad Spending, 2019-2022

billions, % change, and % of digital display ad spending



Note: digital display ads transacted and fulfilled via automation, including everything from publisher-erected APIs to more standardized RTB technology; includes native ads and ads on social networks like Facebook and Twitter; includes advertising that appears on desktop/laptop computers, mobile phones, tablets, and other internet-connected devices
Source: eMarketer, Oct 2020

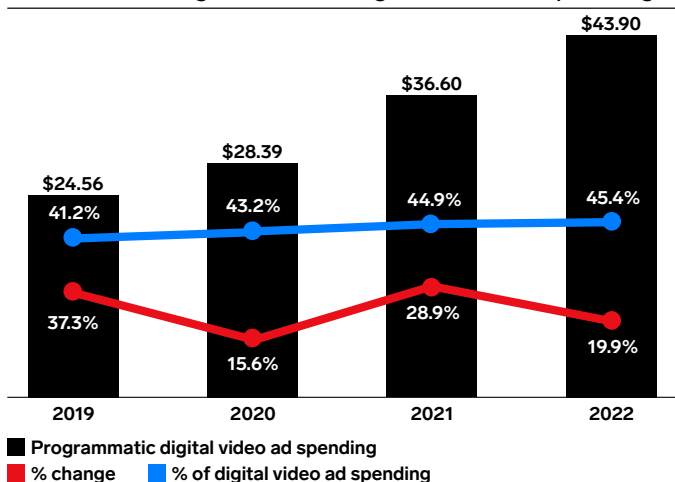
261907

eMarketer | InsiderIntelligence.com

Almost 45% of US programmatic display spending in 2021 will go to video ads, which have increased their share of the programmatic market steadily over the years thanks mostly to increases in available inventory. In 2020, even during the slowdown in digital ad growth, programmatic video spending was up by 15.6%.

US Programmatic Digital Video Ad Spending, 2019-2022

billions, % change, and % of digital video ad spending



Note: digital display ads transacted and fulfilled via automation, including everything from publisher-erected APIs to more standardized RTB technology; includes in-stream video such as those appearing before, during, or after digital video content in a video player (pre-roll, mid-roll, post-roll video ads) and video overlays; includes social network in-stream video advertising in platforms such as Facebook Watch and Snapchat Shows; includes outstream video ads such as native, in-feed (including video ads in Facebook's News Feed and Twitter's Promoted Tweets), in-article, in-banner, and interstitial video ads; appears on desktop and laptop computers as well as mobile phones, tablets, and other internet-connected devices for all formats mentioned
Source: eMarketer, Oct 2020

261908 eMarketer | InsiderIntelligence.com

What's changed: The main difference between our July and October forecasts is our underlying outlook on the total US digital ad market—and, deeper than that, our expectations for ecommerce sales growth. Digital conversions, especially retail ecommerce sales, drive a large share of digital advertising. When we created our June and July estimates of digital and programmatic ad spending, respectively, we anticipated \$709.78 billion in US retail ecommerce sales for 2020. We updated our forecast in September, predicting consumers would spend \$794.50 billion—an upward revision of almost \$85 billion.

This led to upward revisions to our estimates of US digital ad spending, including display ad spending—and ultimately programmatic display. There was a similar, somewhat smaller effect on video, which we define as a subset of display. What hasn't changed is our estimate of the programmatic share of total digital display advertising.

For more on our September US retail sales estimates, read our October 2020 report, [“Holiday Shopping 2020: Unprecedented Holiday Ecommerce Gains Will Make Up for Brick-and-Mortar Shortfall.”](#)

The bulk of programmatic display spending goes to mobile ad placements; we expect mobile's share to exceed three-quarters for the first time in 2021. As discussed in our August 2020 report, [“US Digital Display Advertising: A Guide to eMarketer's Complete Forecast,”](#) one reason for the heavy mobile skew is that most advertising on social networks falls within our definition of programmatic display, and a large share of social network consumption and advertising occurs on mobile devices. Facebook revenues alone will account for roughly 60% of US programmatic mobile display spending in 2022.

The fastest growth throughout our forecast period is on programmatic CTV ad spending. We expect that growth to accelerate to 52.9% this year, though it will still account for a single-digit share of programmatic digital display ad spending. Desktop's share is still nearly double CTV's.

US Programmatic Digital Display Ad Spending, by Device, 2019-2022

billions, % change, and % of programmatic digital display ad spending

	2019	2020	2021	2022
Mobile	\$43.76	\$49.26	\$61.92	\$74.38
—% change	30.0%	12.6%	25.7%	20.1%
—% of programmatic digital display ad spending	73.5%	74.9%	75.9%	77.0%
Desktop/laptop	\$12.49	\$11.95	\$12.74	\$13.32
—% change	8.6%	-4.3%	6.6%	4.6%
—% of programmatic digital display ad spending	21.0%	18.2%	15.6%	13.8%
Connected TV	\$3.32	\$4.53	\$6.93	\$8.88
—% change	76.6%	36.3%	52.9%	28.3%
—% of programmatic digital display ad spending	5.6%	6.9%	8.5%	9.2%

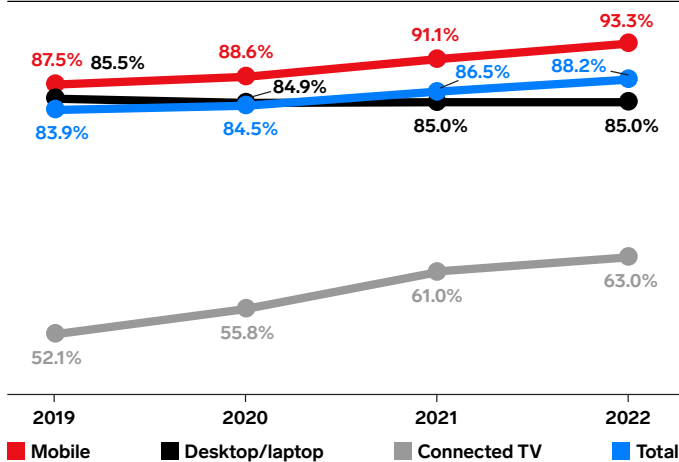
Note: digital display ads transacted and fulfilled via automation, including everything from publisher-erected APIs to more standardized RTB technology; includes native ads and ads on social networks like Facebook and Twitter
Source: eMarketer, Oct 2020

261909 eMarketer | InsiderIntelligence.com

Programmatic has already reached a saturation point on mobile and desktop channels, but there's room for growth in CTV. That will continue its strong progression in 2021. YouTube is a significant influence on this figure—without YouTube, the share of CTV ad spending transacted programmatically this year would be less than 50%.

Programmatic Share of US Digital Display Ad Spending, by Device, 2019-2022

% of digital display ad spending on each device



Note: digital display ads transacted and fulfilled via automation, including everything from publisher-erected APIs to more standardized RTB technology; includes native ads and ads on social networks like Facebook and Twitter
Source: eMarketer, Oct 2020

261910 eMarketer | InsiderIntelligence.com

CTV advertising is almost exclusively video—and looking at only the programmatic video market, CTV spending surpassed that on desktops/laptops last year. In 2021, almost one in five programmatic video dollars will go to ads on CTV devices.

Still, the lion's share of spending goes to mobile. Again, a significant share of spending in this category is direct spending at walled-garden social networks, including Facebook, Instagram, and Snapchat. YouTube ad revenues also skew mobile, albeit less heavily.

US Programmatic Digital Video Ad Spending, by Device, 2019-2022

billions, % change, and % of programmatic digital video ad spending

	2019	2020	2021	2022
Mobile	\$17.00	\$19.73	\$25.47	\$30.82
—% change	37.3%	16.1%	29.1%	21.0%
—% of programmatic digital video ad spending	69.2%	69.5%	69.6%	70.2%
Connected TV	\$3.20	\$4.36	\$6.73	\$8.67
—% change	79.0%	36.3%	54.4%	28.8%
—% of programmatic digital video ad spending	13.0%	15.4%	18.4%	19.8%
Desktop/laptop	\$4.37	\$4.30	\$4.39	\$4.41
—% change	17.3%	-1.5%	2.2%	0.4%
—% of programmatic digital video ad spending	17.8%	15.1%	12.0%	10.0%

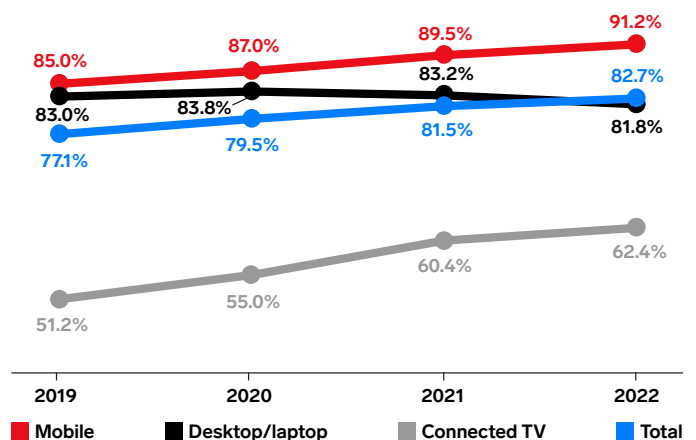
Note: digital display ads transacted and fulfilled via automation, including everything from publisher-erected APIs to more standardized RTB technology; includes in-stream video such as those appearing before, during, or after digital video content in a video player (pre-roll, mid-roll, post-roll video ads) and video overlays; includes social network in-stream video advertising in platforms such as Facebook Watch and Snapchat Shows; includes outstream video ads such as native, in-feed (including video ads in Facebook's News Feed and Twitter's Promoted Tweets), in-article, in-banner, and interstitial video ads; appears on desktop and laptop computers as well as mobile phones, tablets, and other internet-connected devices for all formats mentioned
Source: eMarketer, Oct 2020

261911 eMarketer | InsiderIntelligence.com

As with static display, programmatic has mostly saturated video advertising on mobile and desktop devices. CTV content creators and distributors continue to make more inventory available through programmatic channels.

Programmatic Share of US Digital Video Ad Spending, by Device, 2019-2022

% of digital video ad spending on each device



Note: digital display ads transacted and fulfilled via automation, including everything from publisher-erected APIs to more standardized RTB technology; includes in-stream video such as those appearing before, during, or after digital video content in a video player (pre-roll, mid-roll, post-roll video ads) and video overlays; includes social network in-stream video advertising in platforms such as Facebook Watch and Snapchat Shows; includes outstream video ads such as native, in-feed (including video ads in Facebook's News Feed and Twitter's Promoted Tweets), in-article, in-banner, and interstitial video ads; appears on desktop and laptop computers as well as mobile phones, tablets, and other internet-connected devices
Source: eMarketer, Oct 2020

261916 eMarketer | InsiderIntelligence.com

What's changed: We've revised our growth estimates for 2020 programmatic display spending upward across all devices—and correspondingly generally lowered our growth projections for 2021 in percentage terms, though we expect mobile and desktop/laptop spending to reach a higher level than previously predicted this year.

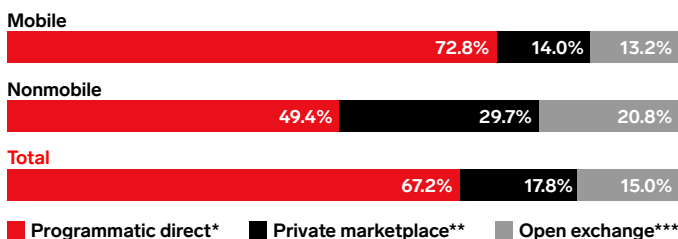
Spending by Transaction Method

Direct transactions have made up a majority of the US programmatic market since 2015 and will account for almost two-thirds of spending this year, thanks mostly to social network advertising growth. Social media platforms typically offer ads through programmatic direct transactions, often via self-serve buying interfaces. The skew of social networks toward both direct, API-based transactions as well as mobile impressions is why mobile is even more dominated by direct transactions than the overall programmatic display market.

Outside of mobile, it's a more even playing field, though the same order of precedence holds and direct transactions are gaining share. We estimate that 43.9% of nonmobile programmatic display spending in 2020 went through direct channels—for example, CTV video ad purchases made directly from Hulu or Promoted Tweets bought through Twitter's own ad platform and displayed on a desktop user's feed. The direct share will approach half this year and exceed 51% in 2022, largely because of the continuing rise of CTV ad spending and the importance of direct buys in that space.

US Programmatic Digital Display Ad Spending, by Device and Transaction Method, 2021

% of programmatic digital display ad spending on each device



*Note: includes native ads and ads on social networks like Facebook and Twitter; includes advertising that appears on desktop/laptop computers, mobile phones, tablets, and other internet-connected devices; numbers may not add up to 100% due to rounding; *includes all programmatic ads that are transacted as blocks of inventory using a non-auction-based approach via an API; **includes ads transacted through an invitation-only RTB auction where one publisher or a select group of publishers invite a select number of buyers to bid on its inventory; ***includes ads transacted through a public RTB auction in which any buyer or seller can participate, also known as open auction or open marketplace*
 Source: eMarketer, Oct 2020

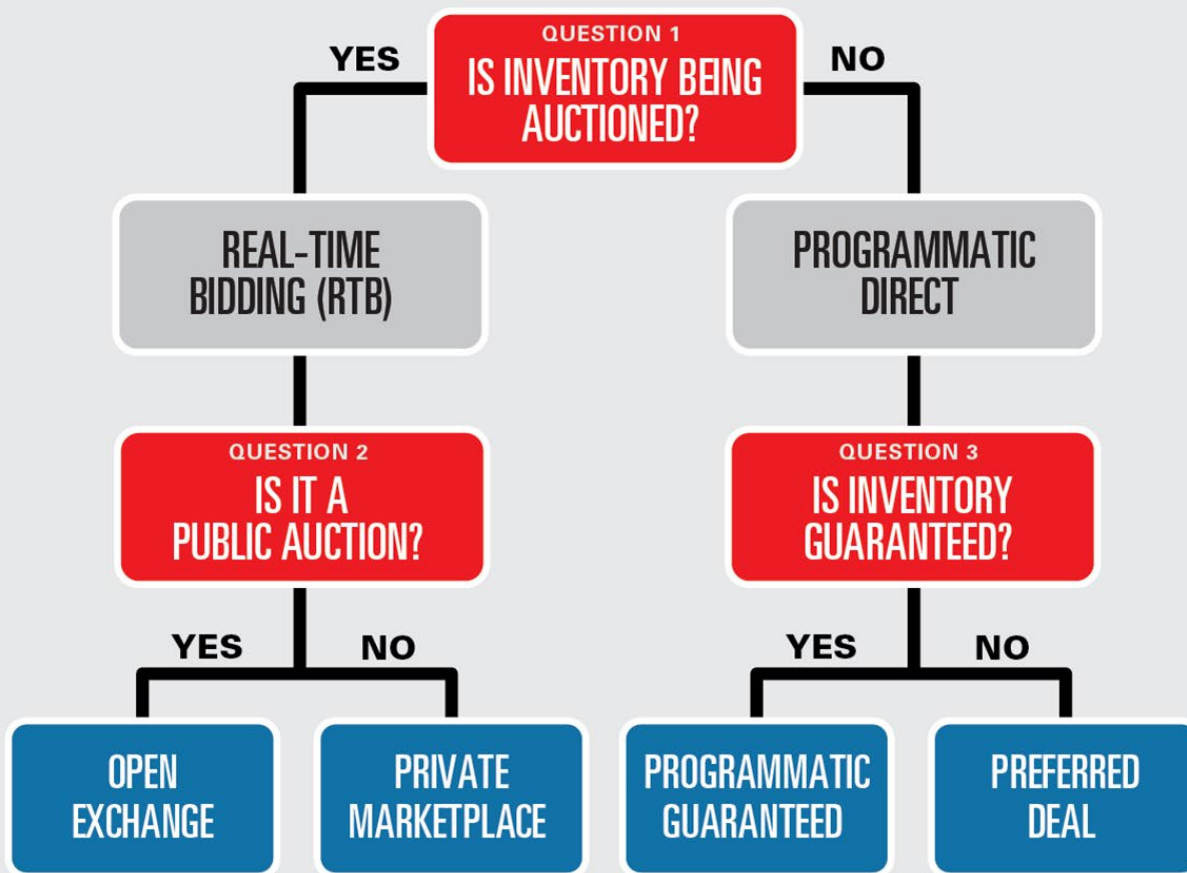
262213

eMarketer | InsiderIntelligence.com

This infographic outlines the basic way various types of programmatic buys are executed. For more information about how we define different types of programmatic transactions, see the glossary at the end of this report.

Understanding Programmatic Advertising in Three Easy Steps

By asking three simple questions, you can identify the four main approaches to programmatic advertising and better understand the different transaction types used.



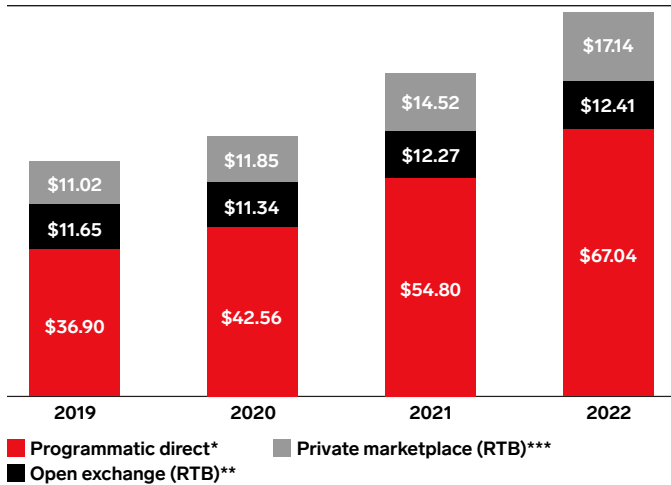
Source: eMarketer, Oct. 2018



In 2020, advertisers spent more in private marketplaces (PMPs) than on the open exchange for the first time ever. The move from open marketplaces toward private setups is a longstanding one, as advertisers have sought the most premium and safest inventory—and as content owners have worked to make their supply available in trusted programmatic environments. During last year’s recession, open marketplace display spending fell by about \$300 million, but we expect it to grow again for the rest of our forecast period.

US Programmatic Digital Display Ad Spending, by Transaction Method, 2019-2022

billions



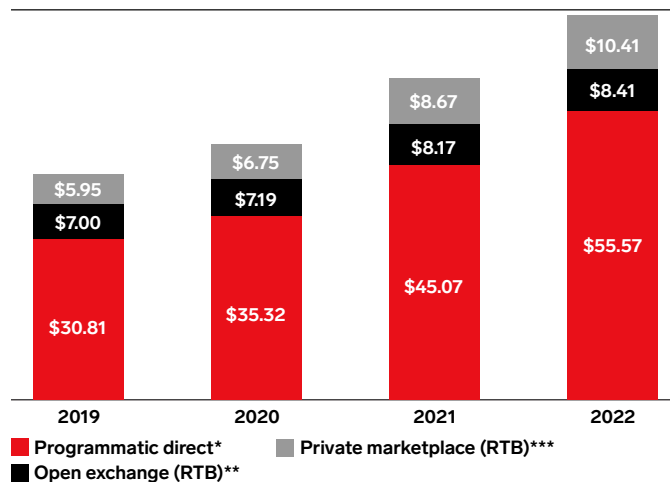
Note: includes native ads and ads on social networks like Facebook and Twitter; includes advertising that appears on desktop/laptop computers, mobile phones, tablets, and other internet-connected devices; *includes all programmatic ads that are transacted as blocks of inventory using a non-auction-based approach via an API; **includes ads transacted through a public RTB auction in which any buyer or seller can participate, also known as open auction or open marketplace; ***includes ads transacted through an invitation-only RTB auction where one publisher or a select group of publishers invite a select number of buyers to bid on its inventory
Source: eMarketer, Oct 2020

261917 eMarketer | InsiderIntelligence.com

On mobile—where, again, real-time bidding (RTB) as a whole accounts for an even smaller share of the total—PMP spending will surpass open market spending this year.

US Programmatic Mobile Display Ad Spending, by Transaction Method, 2019-2022

billions



Note: includes native ads and ads on social networks like Facebook and Twitter; includes advertising on tablets; *includes all programmatic ads that are transacted as blocks of inventory using a non-auction-based approach via an API; **includes ads transacted through a public RTB auction in which any buyer or seller can participate, also known as open auction or open marketplace; ***includes ads transacted through an invitation-only RTB auction where one publisher or a select group of publishers invite a select number of buyers to bid on its inventory
Source: eMarketer, Oct 2020

261926 eMarketer | InsiderIntelligence.com

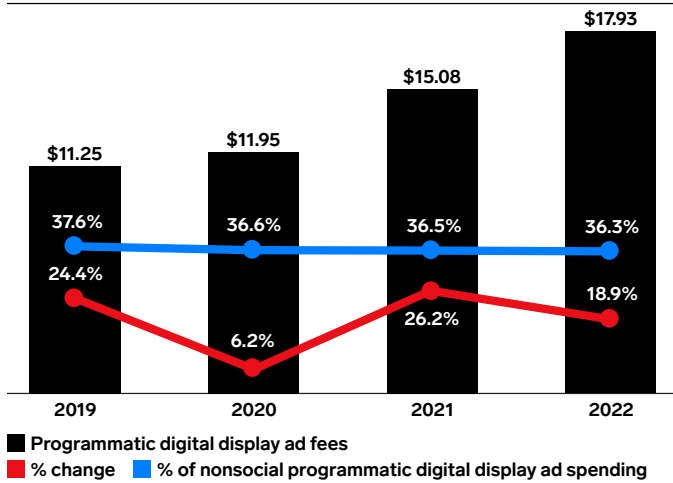
What’s changed: Back in July, our overall worse outlook on the market meant that we expected a larger decline in spending in the open markets in 2020, with total open exchange RTB falling below \$11 billion and the open exchange mobile segment also falling slightly. We now think mobile open exchange spending eked out an increase last year.

Programmatic Fees

We expect programmatic fees paid to intermediaries to rise 26.2% this year, rebounding from slow growth of 6.2% during 2020. Programmatic fees will account for a slightly falling share of nonsocial programmatic spending over time as advertisers, publishers, and their partners continue looking for efficiencies.

US Programmatic Digital Display Ad Fees, 2019-2022

billions, % change, and % of nonsocial programmatic digital display ad spending



Note: includes the portion of programmatic display ad spending that is paid to technology and software intermediaries to execute the transaction before the publisher receives the spending as ad revenues
Source: eMarketer, Oct 2020

261930 eMarketer | InsiderIntelligence.com

What's changed: We haven't changed how we model programmatic fees since last July but now expect different total amounts of spending on fees, and different growth rates, due to our altered expectations for overall nonsocial programmatic display spending.

Spotlight on Audio Ads

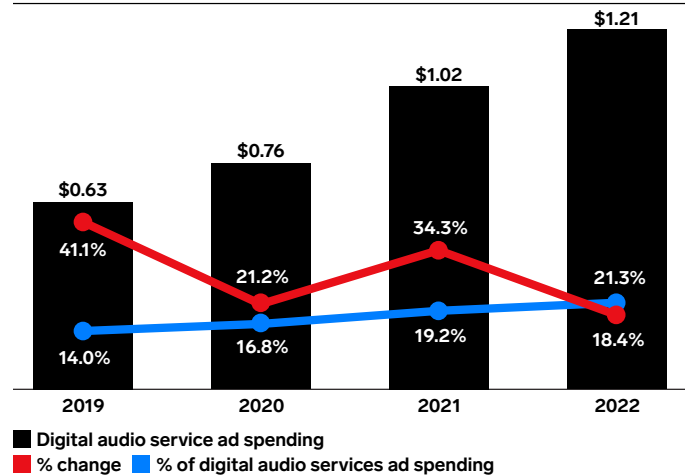
We categorize digital audio ads as a subset of digital display, including digital radio and podcast ads. These ads are a small slice of the programmatic display market.

We estimate advertisers will spend \$1.02 billion this year on programmatic digital audio services ads in the US. This encompasses all digital ads on radio services and streaming music services, including podcast advertising. We used to call this metric "programmatic digital radio" ad spending, but changed the name in October 2020 to better describe what's included.

Programmatic ad spending on digital audio services continued increasing at a double-digit rate last year but from a much smaller base than other pockets of the programmatic market that also grew quickly (like CTV). This year, about one in five digital audio services ad dollars will be transacted through automated channels, and programmatic penetration will continue to grow.

US Programmatic Digital Audio Services Ad Spending, 2019-2022

billions, % change, and % of digital audio services ad spending



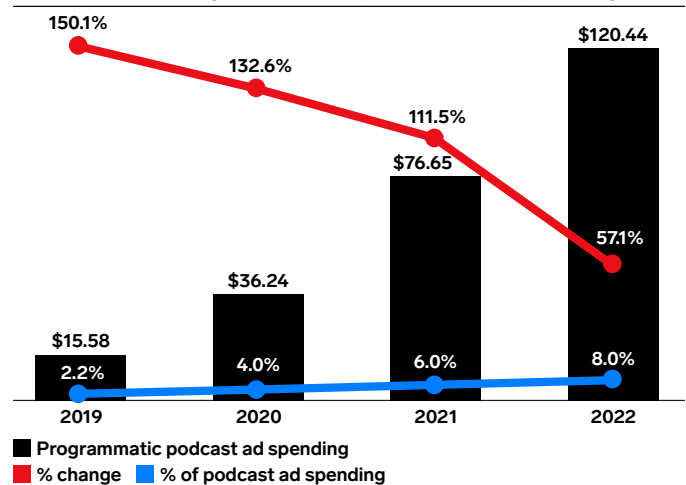
Note: digital audio services ads transacted or fulfilled via automation
Source: eMarketer, Oct 2020

262214 eMarketer | InsiderIntelligence.com

Programmatic accounts for an even smaller share of the podcast ad market, but it's growing rapidly. We expect US programmatic podcast ad spending to more than double this year—again—though it will still come in well below \$100 million.

US Programmatic Podcast Ad Spending, 2019-2022

millions, % change, and % of podcast ad spending



Note: podcast ads transacted and fulfilled via automation
Source: eMarketer, Oct 2020

261935 eMarketer | InsiderIntelligence.com

For more on how advertisers are approaching digital audio, read our September 2020 report, "US Digital Audio Ad Spending 2020: Examining Radio, Streaming Audio, and Podcast Advertising Opportunities amid the Pandemic."

What's changed: We increased our estimate of digital audio services ad growth dramatically between July and October. In March and April, consumer audio streaming, including podcast listening, declined sharply as lifestyles changed early in the pandemic. But people adjusted their listening habits and took streaming audio back up faster than we had anticipated—and even transitioned more of their traditional radio time to digital audio options. We now expect programmatic digital audio services ad spending to hit the \$1 billion mark this year rather than in 2022. We also bumped up our estimate of programmatic podcast ad growth last year despite already predicting 100.8% growth for 2020.

The Identity Crisis

Advertisers, publishers, and their partners are now confronting changes to the infrastructure of platforms and devices that will have significant effects on how they do business. That includes the changes Apple has announced about what marketers can do with the IDFA, as well as Chrome's planned deprecation of third-party cookies by early 2022. Apple's change to the IDFA is rumored to go into effect around March 2021 and will require users to opt in on a per-app basis for cross-channel tracking.

The experts we spoke to in December 2020 about these changes were more optimistic than many in the industry had been earlier last year. Several pointed to the amount of collaboration going on among independent players in the industry to innovate new solutions for identity resolution, targeting, and measurement. "It looks like everything is just continuing as normal, but under the surface, every business is swimming frantically and preparing things they're not ready to announce yet," said John Goulding, US head of strategy at programmatic partner MiQ. "I'm expecting a lot of big unveils especially in H2 in terms of solutions for the current market."

It's important for marketers to understand that those solutions won't be "a replacement for the cookie"—and that's not necessarily a bad thing. But digital advertising and programmatic buying will change in fundamental ways. Most of the people we spoke with agreed that the market for web impressions would split into two or three buckets. Magnite CTO Tom Kershaw outlined them:

- The most valuable and highest-performing set of impressions will be from logged-in users, that is, people with an identity attached and who consent to its use.
- There will be a second, larger tier of impressions within seller-created segments, where publishers and supply-side platforms (SSPs) enrich non-logged-in impressions with first-, second-, or third-party data.
- The third bucket of impressions will be those where the only targeting available will be the anonymized browser-based capabilities currently being developed at the World Wide Web Consortium (W3C).

"The only drama is what percentage of web monetization exists in each of those three tiers," Kershaw said.

The situation on the iOS side differs because Apple will soon require each app to ask users if they would like to opt in to sharing the IDFA. Without an explicit opt-in to share an IDFA, app developers and advertisers won't be allowed to do any type of user-level cross-channel tracking.

According to a September 2020 survey from AppsFlyer and the Mobile Marketing Association (MMA), most mobile marketers worldwide expected the IDFA changes to negatively affect everything from targeting and impression verification to frequency capping, conversion measurement, and multitouch attribution.

Expected Impact of Apple's Planned Changes to Identifier for Advertisers (IDFA) on Select Marketing Capabilities According to Mobile Marketers Worldwide, Sep 2020

% of respondents

	Very negative	Somewhat negative
Audience targeting/suppression/remarketing	34%	40%
Cross-device measurement	31%	40%
Multitouch attribution	31%	31%
Conversion measurement	20%	46%
Contextual targeting	17%	26%
Frequency capping	17%	42%
Impression measurement and verification	17%	39%
Dynamic creative optimization	15%	44%

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

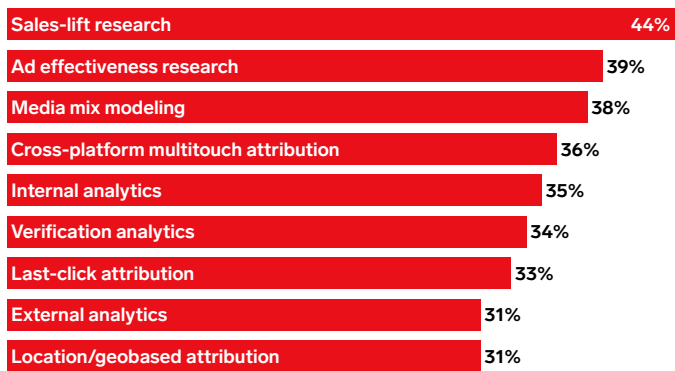
261527

eMarketer | InsiderIntelligence.com

US marketers and agencies polled by Advertiser Perceptions, also in September, expected campaign reporting and optimization to be most affected by the cookie deprecation specifically. The survey also found advertisers expect a number of measurement and research techniques to become more important in a cookieless world, including sales-lift research, ad effectiveness research, and media mix modeling.

Types of Ad Measurement and/or Research that Will Become More Important in a Cookieless World According to US Marketers and Agencies, Sep 2020

% of respondents



Note: n=302
Source: Advertiser Perceptions, "Identity: Are we headed toward resolution, revolution or regression?" Oct 19, 2020

259933 eMarketer | InsiderIntelligence.com

It's critical for advertisers to start testing approaches to targeting these types of users and measuring results now—while the traditional signals are still available for them to make comparisons. And remember that some of these buckets of impressions already exist to test with, for example, on Safari and Firefox.

For more on how advertisers, publishers, and their partners are approaching the coming identity changes, read our September 2020 report, "[Identity 2020: Changes to Cookies, Ad IDs, and Regulations Take Aim at Tracking.](#)"

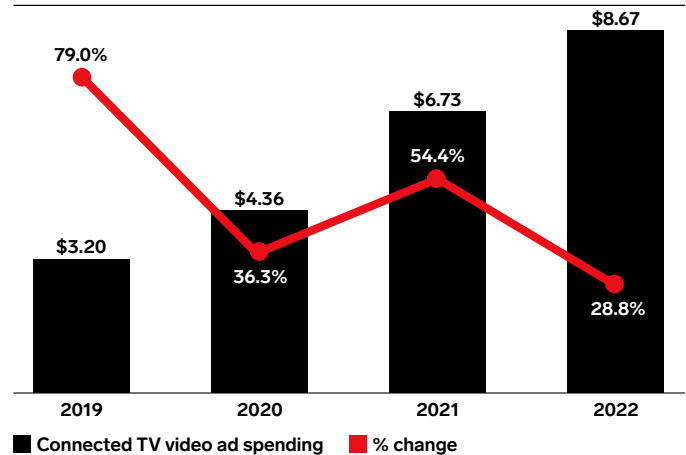
Programmatic CTV Video Advertising Soars

For years, growth in video advertising has driven overall programmatic display growth. Advertiser demand for video impressions has always outstripped supply, but supply has gotten a big boost as consumers started adopting streaming video viewing in larger numbers—especially on CTV devices—and more of those impressions have been made available programmatically. The pandemic supercharged the consumer behavior side, and many of those we interviewed mentioned dramatic increases in the number of available CTV video impressions.

We estimate advertisers spent an additional \$1.16 billion on programmatic CTV video ads in 2020 compared with 2019, and incremental spending in 2021 will increase to \$2.37 billion. That \$2.37 billion will represent almost 29% of all incremental spending on programmatic video ads this year, or about 15% of growth in total programmatic display.

US Programmatic Connected TV Video Ad Spending, 2019-2022

billions and % change



Note: digital display ads transacted or fulfilled via automation, including everything from publisher-erected APIs to more standardized RTB technology; includes in-stream video such as those appearing before, during, or after digital video content in a video player (pre-roll, mid-roll, post-roll video ads) and video overlays; includes social network in-stream video advertising in platforms such as Facebook Watch and Snapchat Shows; includes out-stream video ads such as native, in-feed (including video ads in Facebook's News Feed and Twitter's Promoted Tweets), in-article, in-banner, and interstitial video ads; includes advertising that appears on connected TV (CTV) devices; excludes network-sold inventory from traditional linear TV and addressable TV advertising

Source: eMarketer, Oct 2020

262215

eMarketer | InsiderIntelligence.com

According to a November 2020 poll from the Interactive Advertising Bureau (IAB), 60% of US advertisers planned to shift ad dollars from linear TV to either CTV or OTT in 2021. Among those planning to do this, 81% cited targeting and efficiency as a reason, while 55% pointed to incremental reach.

Experts interviewed for this report cited two major inhibitors to further programmatic CTV video ad growth. (Though, to be sure, all agreed that this category of spending would continue growing rapidly.) The first was the difficulty of measuring CTV ad results. These include the problems of cross-channel measurement outlined in our May 2020 report, “TV and Digital Video Measurement 2020: Addressing Cross-Platform Challenges.” They also include the inherent difficulty in measuring the results of ads that don’t typically—and aren’t expected to—lead directly to a click or other type of conversion.

The second major problem was a relative lack of addressability on CTV versus other programmatic channels. There are two interrelated issues at play here. First, the nature of CTV makes it difficult to identify viewers. CTV apps are a cookieless environment (like mobile apps), and CTV devices are often shared by a household, making it difficult to tell who is watching at any given time.

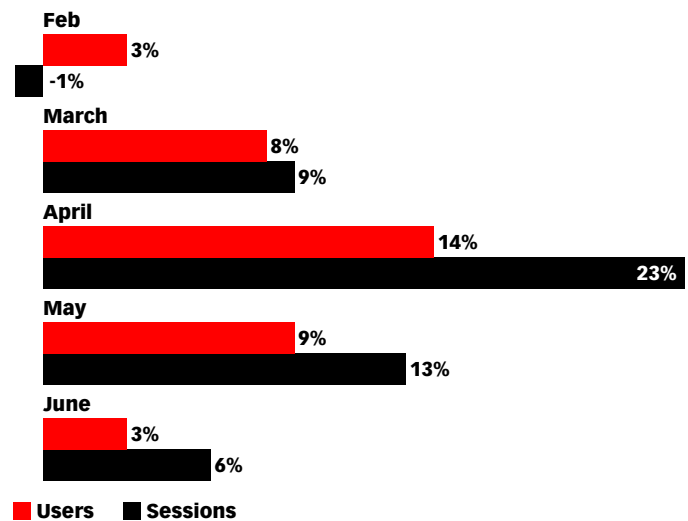
Additionally, a significant portion of CTV advertising is not decided on a real-time, impression-level basis. Large chunks of spending come from upfront or other long-term commitments as part of programmatic guaranteed deals. Those deals don’t provide the flexibility advertisers may be used to in other programmatic display channels. Several people we spoke with on the buy and sell sides indicated they hoped for advances in technology that would allow a greater degree of addressability in CTV and a more sophisticated decisioning setup for programmatic guaranteed buys in all channels.

Advances in cross-channel identity and measurement should help here, and the IAB also recently rolled out a version of ads.txt and app-ads.txt for the CTV environment, which should help ease concerns about fraud and fragmentation in the market.

Mobile In-Game Advertising Gains Appeal

Mobile gaming was an early pandemic bright spot for the media industry in consumer time spent and continued advertiser interest. On the consumer side, for example, Flurry Analytics reported increased numbers of users and sessions in gaming apps on its mobile app analytics platform in March and Q2.

Coronavirus Impact: Change in US Average Daily Gaming App Users and Sessions, Feb-June 2020 % change vs. Jan 2020



Note: represents activity on Flurry's platform, broader industry metrics may vary

Source: Flurry Analytics as cited in company blog, July 7, 2020

256739

www.eMarketer.com

These trends led us to revise our mobile phone gamer estimate upward for 2020. Pre-pandemic, we had expected 2.6% growth in the number of people playing games via mobile at least monthly in 2020. We increased that estimate to 5.1% in August. We made similar revisions to our estimates of gamers in other channels.

The Coronavirus Pandemic Bump: US Gamers, 2020

% change

MODERATE IMPACT Forecast for: Aug 2020 Feb 2020

Digital gamers	5.0%	2.0%
Mobile phone gamers*	5.1%	2.6%
Desktop/laptop gamers	3.6%	0.6%

*Note: all ages who play games monthly; low impact indicates under 2 percentage point change in forecast, moderate impact indicates 2 to 4 percentage point change in forecast, and high impact indicates more than 4 percentage point change in forecast; *mobile phone users of any age who play games through the internet or games that update via the internet on mobile phones at least once per month*
Source: eMarketer, Aug 2020

i258580

www.eMarketer.com

Ad spending held up relatively well in this area—in large part because a lot of in-game advertising comes from other games or user acquisition-oriented advertisers with apps in different verticals like food delivery or ride-hailing. Ad sellers reported a glut of impressions from more users playing more sessions, leading to lower prices for ads and therefore a virtuous cycle for user acquisition.

According to Facebook CFO Dave Wehner's remarks on the company's Q2 2020 earnings call, "Gaming continues to be a top five vertical for us in terms of advertising. And we saw strong growth in the second quarter, especially in the beginning of the quarter when prices were lower in the auction. We saw a lot of demand from our gaming advertisers."

Ben Holmes, vice president of programmatic demand at in-app ad monetization partner AdColony, noted that these pandemic trends hit at a time when advertisers were already gaining an understanding of and comfort with the gaming space. "Marketers, which we saw were historically very hesitant to enter the space, were already talking about test budgets," he said. "That trend had already started, and as consumption habits changed with everyone staying home, we saw more traffic being generated, which led marketers to see the overall potential." He noted AdColony has seen particular interest in in-game ads last year from pharma, retail, consumer packaged goods (CPG), and political advertisers.

But the identity crisis is expected to severely affect gaming. User acquisition-focused app advertisers are going to lose a lot of their current capabilities to measure customer lifetime value and target the most valuable customers with in-app ads. But none of the experts we've spoken with for this report, or others throughout 2020, expected a doomsday scenario here.

"I do believe based on our testing so far that user acquisition can still work programmatically without IDFA, using contextual targeting," said Offer Yehudai, president at mobile in-app monetization partner Fyber. "We'll fine-tune the unit economics, costs per acquisition [CPAs] and lifetime value will go down, and they will balance. Many people believe hypercasual will take a big hit, but when I look at user acquisition for hypercasual, it's mainly category targeting." He was more concerned, instead, about social casino games and midcore titles that rely on more in-app spending by users. Those types of games may find whale hunting more difficult.

Hypercasual games are straightforward to learn, have short game loops, and are lightweight, often having 2D graphics or simple perspective.

Midcore games are geared toward serious gamers with limited time. They require extensive skills and knowledge of the game but often have shorter game loops than hardcore games.

Social casino games involve playing casino-type games—not for real money—with friends.

The K-Shaped Recovery for Brand vs. Performance Advertising

The country may have hoped for a quick V-shaped recovery from the pandemic recession last year, but that doesn't seem to have come to pass on a macroeconomic level. Instead, we appear to be in a K-shaped recovery, where some industries bounced back quickly and others—the most commonly cited is travel—have not.

The K-shaped recovery also applies to ad spending in a few different dimensions. For digital advertising, including programmatic display, there was a sharp crash in late March, but recovery started quickly. Facebook reported things already started looking better in April than March. Other platforms, including SSPs working in the open web, reported starting to see a recovery in May and accelerating through June and July. For traditional media, recovery has been much slower. The programmatic ad market has also seen a bifurcation in recovery depending on the advertiser's industry vertical. Travel advertisers are still not spending like they used to, and won't be for a while, but ecommerce advertisers have ramped up spending to levels never seen before to match consumer shopping habits.

The other K-shaped split in recovery has to do with performance advertising versus brand advertising. This storyline began as early as April, when major digital ad sellers including Facebook, Google, and Snapchat reported in their Q1 earnings calls that spending by direct-response advertisers had bounced back almost immediately. These findings continued on Q2 earnings calls, and some sellers, most notably Snapchat, also started reporting a return from brand advertisers during Q3.

Most of the experts we spoke to for this report agreed that performance advertising had recovered in a quick V while brand spending was starting to come back—but many also noted that within digital channels, and especially with the pandemic putting the spotlight on ROI, even “brand” spending is often driven by data and optimized toward particular goals.

“In many cases, advertisers choosing programmatic channels looked for more than just an impression and moved to buying on specific outcomes,” said Darcy Baber, director of product management at SSP Sovrn. “Buyers needed assurance that the money invested would result in action-based brand engagement like a click, purchase, or newsletter sign-up to determine [return on ad spend]. As larger advertising verticals like auto and travel come back into the programmatic channel, we’ll likely see some brand advertising return to display. The industry was already moving to outcomes-based buying before the pandemic, and this will only accelerate as advertisers continue to track every dollar invested.”

“In 2021, I expect that all channels will be more accountable to business outcomes, and that advertisers will continue to invest in better measurement,” said Jed Dederick, senior vice president of global client development at The Trade Desk. “You’ll see digital and streaming formats steal share from traditional because of the targeting and measurement advantages.”

Of course, that’s what we would expect to happen as budgets shift from traditional to digital media, regardless of the pandemic or recession.

Key Takeaways

- **Programmatic display advertising will rebound to 24.1% growth this year, after eking out a double-digit increase in 2020.** Video ads continue to drive growth and are helping to move more of advertisers’ programmatic budgets from open exchanges into direct or private programmatic channels.
- **Programmatic spending on CTV devices, especially for video ads, is driving billions in incremental ad investments.** Content creators and distributors are working hard to make more of these impressions available to buyers, who are eager to port the effective brand messaging from linear TV to a digital channel that offers more targeting and measurement capabilities.
- **The pandemic recession has put a greater focus than ever on performance.** The measurability of digital ads, in combination with their flexibility, has helped them stay resilient compared with traditional channels even as advertisers were forced to justify that their spending was leading to a positive return. Brand spending is returning, but will likely come with more goals and accountability to business outcomes attached.

Glossary

Connected TV (CTV) advertising includes digital advertising that appears on CTV devices. Examples include display ads that appear on home screens and in-stream video ads that appear on CTVs from platforms like Hulu, Roku, and YouTube; excludes network-sold inventory from traditional linear TV and addressable TV advertising. CTVs are TV sets connected to the internet through built-in internet capability or through another device such as a Blu-ray player, game console, set-top box (e.g., Apple TV, Google Chromecast, Roku), etc.

Desktop/laptop advertising includes advertising that appears on desktop and laptop computers and nonmobile internet-connected devices other than CTV devices.

Digital display advertising includes banners, rich media, sponsorships, video, and ads such as Facebook’s News Feed Ads and Twitter’s Promoted Tweets.

Mobile advertising includes ad spending on mobile phones, tablets, and mobile internet-connected devices.

Open exchange includes public RTB auctions open to all buyers and sellers; also called an open auction or open marketplace.

Preferred deals include upfront commitments to inventory price but not inventory amount between one buyer and one seller; also called private access or first right of refusal.

Private marketplace (PMP) is an auction owned by a single publisher or a small group of publishers and open only to an invited select number of buyers; also called a private exchange or private auction. These are typically executed via normal RTB technology and may include a deal ID, a tag that notifies the auction that a specific buyer has some sort of preferential treatment, whether in price or priority.

Programmatic digital display advertising includes digital display ads transacted or fulfilled via automation, including everything from publisher-erected APIs to more standardized RTB technology. Programmatic digital display advertising includes native ads and ads on social networks like Facebook and Twitter.

Programmatic digital display advertising fees (also called programmatic fees) include the portion of programmatic display ad spend that is paid to technology and software intermediaries that execute the transaction before the publisher receives the spending as ad revenues. Intermediaries include ad networks, ad servers, demand-side platforms (DSPs), exchanges, supply-side platforms (SSPs), as well as services providing measurement, data licensing and targeting, verification (e.g., brand safety, antifraud, ad blocking), and attribution; excludes spending on owned and operated properties of social networks; excludes agency and creative fees not rolled into platform and service fees listed above. Programmatic fees are sometimes referred to as the “ad tech tax.”

Programmatic direct is a non-auction-based approach to buying or selling ad inventory, not at the impression level. Programmatic direct deals can be orchestrated via pre-existing RTB technology, through publisher-owned APIs, such as on social sites or via self-service user interface or deal discovery tools. Programmatic direct deals specify a fixed price and may or may not guarantee fixed inventory amounts.

Programmatic guaranteed includes upfront commitments to both CPM price and inventory amount secured via programmatic pipes between one buyer and seller; also called programmatic reserved, forward market, or just “upfronts.”

Real-time bidding (RTB) is an auction-based approach used to buy or sell impression-level inventory. Auctions can be public or private.

Video advertising (also referred to as digital video advertising) includes in-stream video such as those appearing before, during, or after digital video content in a video player (pre-roll, mid-roll, post-roll video ads) and video overlays; includes social network in-stream video advertising in platforms like Facebook Watch and Snapchat Shows; includes outstream video ads such as native, in-feed (including video ads in Facebook’s News Feed and Twitter’s Promoted Tweets), in-article, in-banner, and interstitial video ads.

eMarketer Interviews

eMarketer was founded on the idea that multiple sources and a variety of perspectives will lead to better analysis. Our interview outreach strategy for our reports is to target specific companies and roles within those companies in order to get a cross-section of businesses across sectors, size, and legacy. We also look to interview sources from diverse backgrounds in order to reflect a mix of experiences and perspectives that help strengthen our analysis.

The people we interview for our reports are asked because their expertise helps to clarify, illustrate, or elaborate upon the data and assertions in a report. If you would like to be considered for an interview for one of our reports, please [fill out this form](#).



Darcy Baber
Director, Product Management
Sovrn
Interviewed December 10, 2020



Romain Job
Chief Strategy Officer
Smart AdServer
Interviewed December 16, 2020



Jed Dederick
Senior Vice President, Global Client Development
The Trade Desk
Interviewed December 10, 2020



Tom Kershaw
CTO
Magnite
Interviewed December 14, 2020



Kurt Donnell
President and CEO
Freestar
Interviewed December 1, 2020



Walter Knapp
CEO
Sovrn
Interviewed December 10, 2020



Kyle Dozeman
Chief Revenue Officer, Americas
PubMatic
Interviewed December 10, 2020



Joey Leichman
Vice President, Buyer Development
OpenX
Interviewed December 17, 2020



Andrew Eifler
Chief Product Officer
TripleLift
Interviewed December 11, 2020



James Malins
Senior Vice President, Programmatic
Amobee
Interviewed December 8, 2020



Ben Holmes
Vice President, Programmatic Demand
AdColony
Interviewed December 7, 2020



Charles Manning
CEO
Kochava
Interviewed December 2, 2020



John Goulding
Head of Strategy, US
MiQ
Interviewed December 14, 2020



Nick McLachlan
Product Marketing Manager
Adobe Advertising Cloud
Interviewed December 9, 2020



Kevin Hunt
Senior Vice President, Global Marketing
SpotX
Interviewed December 8, 2020



Kunal Nagpal
General Manager, Publisher Platforms and Exchange
InMobi
Interviewed December 15, 2020

Editorial and Production Contributors



Michael Nevins
CMO
Smart AdServer
Interviewed December 16, 2020



Mary Sheehan
Head of Product Marketing
Adobe Advertising Cloud
Interviewed December 9, 2020



Anudit Vikram
Chief Product Officer
MediaMath
Interviewed December 11, 2020



Offer Yehudai
President
Fyber
Interviewed December 10, 2020

- Anam Baig
 - Rahul Chadha
 - Joanne DiCamillo
 - Donte Gibson
 - Katie Hamblin
 - Dana Hill
 - Erika Huber
 - Ann Marie Kerwin
 - Na Li
 - Penelope Lin
 - Stephanie Meyer
 - Heather Price
 - Magenta Ranero
 - Amanda Silvestri
 - Julia Woolever
 - Ali Young
- Senior Editor
 - Senior Editor
 - Senior Production Artist
 - Chart Editor
 - Chart Editorial Manager
 - Director of Production
 - Copy Editor
 - Executive Editor, Content Strategy
 - Senior Data Research Manager
 - Copy Editor
 - Senior Production Artist
 - Deputy Editor
 - Senior Chart Editor
 - Senior Copy Editor
 - Research Editor
 - Research Editor



adtaxi

THE FUTURE OF PROGRAMMATIC IS NOW

"Programmatic is all-encompassing; using data to make ad buying and optimization decisions. The insights can be used across platforms to increase brand awareness and conversions that set your business apart from the competition."

BRIAN KROLL
VP, Strategic Accounts
Adtaxi

DATA PRIVACY

- Cookieless environment
- Unified IDs
- Data collection disclosures
- Consumer control

AUDIENCE

- First party data
- Contextual targeting
- Cross-channel marketing
- Look-alike modeling

PERFORMANCE

- Better metrics
- Optimization insights
- CTV acceleration
- Cross-channel attribution

adtaxi

ADTAXI

WATCH
"THE PROGRAMMATIC PORTFOLIO"
WEBINAR NOW



www.adtaxi.com



877.856.4668

Power your next move with clear and credible insights.



Your morning coffee

Never fall behind the biggest trends and executive-level decisions shaping your industry with our Industry Briefings—they're timely subscriber-only newsletters delivered straight to your email.

[Learn More](#)



Get the bigger picture

Your organization is affected by diverse industries, geographies, and ideas. Tap into these influencing factors to avoid information silos and see a more complete picture.

[Explore related content](#)



Empower your colleagues

Confidently share reliable and accurate research with your subscribing team members to strategize around our information.

[Send to my colleagues](#)

Your account team is here to help.

Contact accounts@insiderintelligence.com or 1-866-345-3864 for answers to any research- and account-related questions.

To learn about advertising and sponsorship opportunities, contact advertising@insiderintelligence.com.