



# 10 DIGITAL ADVERTISING TRENDS

Publishers Should Leverage in 2021

# Introduction



The past year will be remembered as a time of pivotal change for decades to come. The COVID-19 pandemic has caused great hardship for many individuals and organizations. For others, it has led to new opportunities, spurring digital transformation at a dizzying speed and on a staggering scale.

Within this new context, the media industry is beginning to gain clarity around what the business models and technologies of tomorrow may look like, even in a future that's far from certain.

In this white paper, you'll learn about 10 digital advertising trends that will matter 2021, some of which emerged on the landscape in our [2020 Digital Advertising Trends](#) white paper, signalling their potential for longevity<sup>1</sup>.

Publishers and advertisers alike will continue to navigate changes in 2021, from experimenting with new ways to run events and engage audiences, to stepping into an undeniably important role in the push for social change.

In addition, subscription models, streaming video and audio, and mobile gaming will solidify themselves in mainstream society, and present exciting opportunities to build relationships and grow revenue.

The road ahead will be challenging, but the media organizations and brands that step into 2021 with an innovative, customer-centric approach will be well positioned to weather the disruption and thrive in the digital age.

# Top 10 Digital Advertising Trends for 2021

- 01** More publishers will shift to combined revenue models
- 02** Hybrid live-virtual event model will attract audiences—and advertising dollars
- 03** Brands will spend more on mobile gaming and esports
- 04** Streaming media growth will be accelerated by conglomerates
- 05** Brands concerned with movements for social change will prefer publishers for advertising
- 06** Data privacy laws will show their teeth
- 07** Emerging ad targeting options will continue to evolve
- 08** 5G will see greater adoption worldwide
- 09** Brands that were once “niche” will dominate the market
- 10** More publishers will become ‘one stop shops’ for brands

# 01 More publishers will shift to combined revenue models

Advertising revenue matters greatly to publishers' bottom lines. However, combined advertising-subscription revenue models will continue to grow in 2021 as media organizations navigate the competitive landscape dominated by Big Tech, and work to make up for the drop in ad spend caused by COVID-19<sup>2</sup>.

Subscriptions are an ideal revenue stream because they provide a win-win for audiences and publishers alike—access to high quality, personalized content that drives brand loyalty and enables publishers to gather first-party data.

Increasing numbers of consumers are willing to part with their cash for content. For example, 20% of Americans paid for news in 2020 (up from 16% the previous year), according to The Reuters Institute's [Digital News Report for 2020](#)<sup>3</sup>. Among 16 countries, the U.K. had the lowest number of people who paid for news in 2020 at 7%, and the Nordic countries the highest at 26%.

Publishers are leveraging consumers' willingness to pay for content to their benefit. Among those surveyed in our recent report developed in conjunction with the North American Publishing Company (a subsidiary of Adweek), titled [Combined Revenue Models Gaining Traction in Media Industry](#), 70% of publishers currently have a blended revenue model. They receive 28% of their revenue from subscriptions, which they plan to increase to 32% as soon as possible<sup>4</sup>.

"Publishers are aware that the current economic climate is not great, and many people are out of work and looking at ways to save money," said Lisa Levine, Digital Consultant at Lineup Systems. "By changing their subscription offerings to tiers, publishers may be able to tap into those customers and generate revenue that way."

Media organizations are also getting creative with their subscription models in other ways. For example, Times Radio in the U.K. is promoting subscriptions for The Times newspaper and repurposing content from that outlet for the initiative. As subscriptions solidify themselves in mainstream society, we'll inevitably see more innovation in this area<sup>5</sup>.

One way for media organizations to evolve their subscription models is to introduce tiered offerings. For example, a news website could sell the following tiers:

## 1 TIER 1

A full subscription to the entire site with access to unlimited articles, features, offers, and virtual events—and no advertisements.

## 2 TIER 2

Access to unlimited articles and features in 3 areas of the site—for example, U.K. news, world news, and sports—with advertisements. Users pay a discounted subscription price for this package, and get the opportunity to buy tickets for virtual events.

## 3 TIER 2

Access to a limited number of articles and features in 2 areas of the site, with the opportunity to buy articles and features from any other areas at a discounted price. Tier 3 subscribers will also see ads.

## 02 Hybrid live-virtual event model will attract audiences—and advertising dollars

Just as COVID-19 saw air travel grind to a halt, the pandemic also stopped face-to-face events in their tracks. Among meeting planners surveyed by Northstar Meetings Group in October 2020, only 55% intended to host in-person events again by Q2 of 2021, with nearly half of respondents saying they'd wait until at least Q3<sup>6</sup>.

This brings us to the hybrid live-virtual event model that is positioned to become the norm for the long term. Media organizations and brands alike will get creative in delivering high quality event experiences, no matter how their audiences choose to engage<sup>7</sup>.

“There will be an increase in pay-per-view events, and not just the usual sporting kind. I see a move toward pay-per-view industry conferences, concerts, theatre performances, comedy shows—anything that usually has a live audience,” said Levine.

For example, the South Korean K-pop band BTS staged a 2-day online concert in October that generated 993,000 views and approximately \$35 million in ticket sales. The event enabled fans to be present on screens so they felt like they were at the concert with the band.

“I think we'll see more concerts heading this way,” said Levine. “As we get ‘back to normal,’ paying to watch a live show at home will be a more common option when purchasing tickets.”

The hybrid live-virtual event model will present opportunities for both publishers and advertisers. For example, Google's Dynamic Ad Insertion (DAI) technology launched in September 2020 aims to improve the ad viewing experience for audiences by facilitating broadcast-quality ad insertions across all screens during live events.

“There can be millions of concurrent viewers, unknown commercial break times, and ad request spikes that occur simultaneously,” according to Google<sup>8</sup>. “DAI distributes ad requests more evenly and enables partners to maximize fill rates and revenue.”



## 03 Brands will spend more on mobile gaming and esports

Mobile gaming and esports have exploded in popularity—another effect of the COVID-19 pandemic. In 2020, Newzoo estimated that 2.7 billion gamers worldwide would spend \$159.3 billion on console, mobile, and PC games, up more than 9% over 2019 revenues. The gaming market is estimated to grow beyond \$200 billion by 2023<sup>9</sup>.

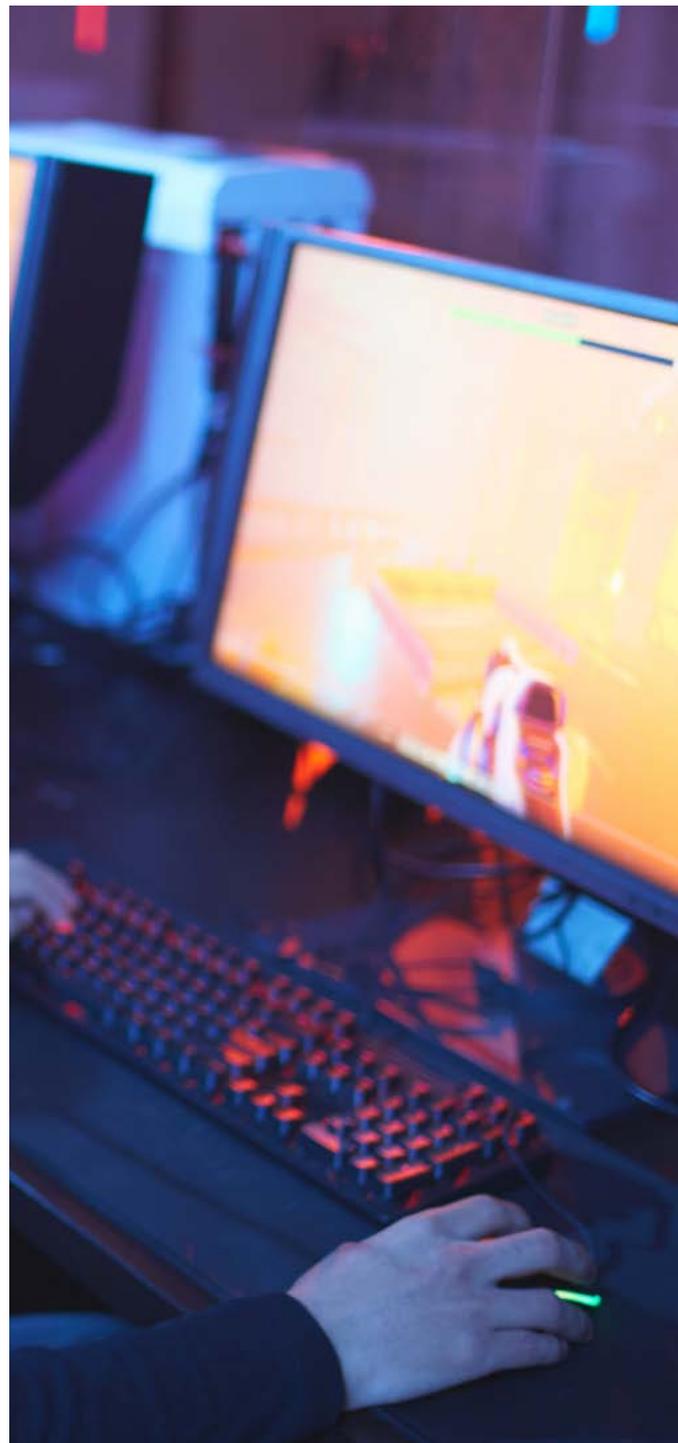
“Where the eyeballs go, the ads follow. Programmatically traded ads are popping up on mobile games and other devices like PlayStation and Xbox. This is no longer a niche offering—it’s mainstream,” said Sarah Hartland, Head of Marketing at Lineup Systems.

Gamers are a broad audience, spanning generations, geographies, and income brackets. And, they’re highly engaged in the platform<sup>10</sup>. Most mobile gamers use gaming apps weekly, if not daily. This is welcome news for advertisers across verticals who are seeking new ways to reach potential customers.

In response to this trend, companies are developing ad exchanges and ad formats for native in-game advertising. In September 2020, Bidstack announced a partnership with Ubisoft to deliver ads across console and PC devices for the urban battle royale game *Hyper Scape*<sup>11</sup>. Bidstack referred to the initiative as “virtual out-of-home advertising.”

Publishers are also seeing and acting on the opportunities presented by gaming. For example, in July 2020, USA TODAY Sports Media Group partnered with the content and community platform Super League Gaming to launch online esports competitions for an audience of over 60 million<sup>12</sup>.

Brands should expect more opportunities for mobile game and esports advertising to arise in 2021, and consider setting budget aside to reach audiences through this platform. As for publishers, considering how to partner with gaming companies would be a smart strategy.



## 04 Streaming media growth will be accelerated by conglomerates

Companies that once offered streaming video and audio services as a supplement to their main revenue streams are now giving more attention to these platforms. In 2020, several major players including Disney, NBCUniversal, ViacomCBS, and WarnerMedia restructured their organizations to focus primarily on their streaming businesses<sup>13</sup>. This was a wise move, considering that streaming video accounted for 25% of TV viewing in Q2 of 2020, up from 19% in Q4 of 2019, according to Nielsen's [Total Audience Report](#)<sup>14</sup>.

"In the past we weren't sure how streaming would evolve, but now we know," said Hartland. "Companies are innovating ad formats and ways to monetize streaming, which has been accelerated by the pandemic."

Streaming services are moving full steam ahead with this trend. For example, in October 2020, Spotify launched a feature combining music with spoken word audio to mimic the experience of listening to a radio DJ. Premium users of the service have the ability to create personalized shows with songs from their own playlists using this feature<sup>15</sup>.

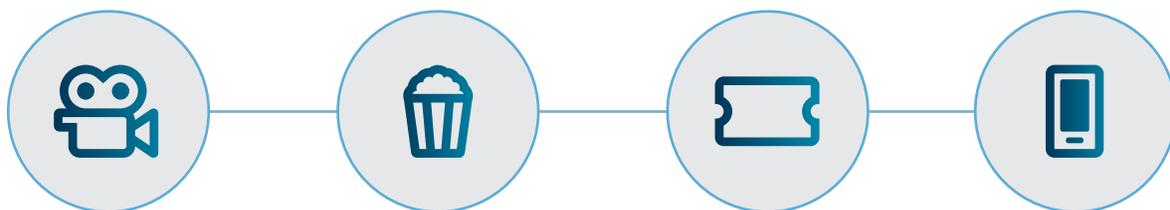
"We're also going to see convergence between streaming services and linear TV formats with targeted ad insertion in 2021," said Neil Webster, Sales & Account Director at Lineup Systems. "There are already a few examples of this happening."

In November 2020, Virgin Media launched AdSmart to over 500,000 households on the company's Sky platform in Ireland. Virgin plans to expand the service further in 2021, which allows different ads to be served to viewers watching the same show, enabling advertisers to deliver highly personalized experiences to their audiences<sup>16</sup>.

In addition, Samsung launched a demand-side platform in September 2020. The self-service advertising platform provides programmatic media buyers with access to Samsung's connected and linear TV inventory, as well as desktop and mobile inventory, and an audience of 45 million households<sup>17</sup>.

Bigger players are also starting to gobble up niche streaming sites. For example, Sony purchased niche Christian streaming platform Pure Flix in November 2020, hinting that large conglomerates are eager to stake their claims on the streaming market before it becomes saturated. In turn, this begs the question, when will the market be saturated<sup>18</sup>?

Acquisitions aren't the only sign pointing to media powerhouses controlling the future of streaming. Smaller platforms simply don't seem to be gaining traction. For example, the mobile streaming platform Quibi, which launched in April 2020 and featured short content clips (less than 10 minutes), called it quits in October<sup>19</sup>. This suggests that streaming may only be a winning strategy for companies with big budgets to purchase existing content as well as produce strong originals.



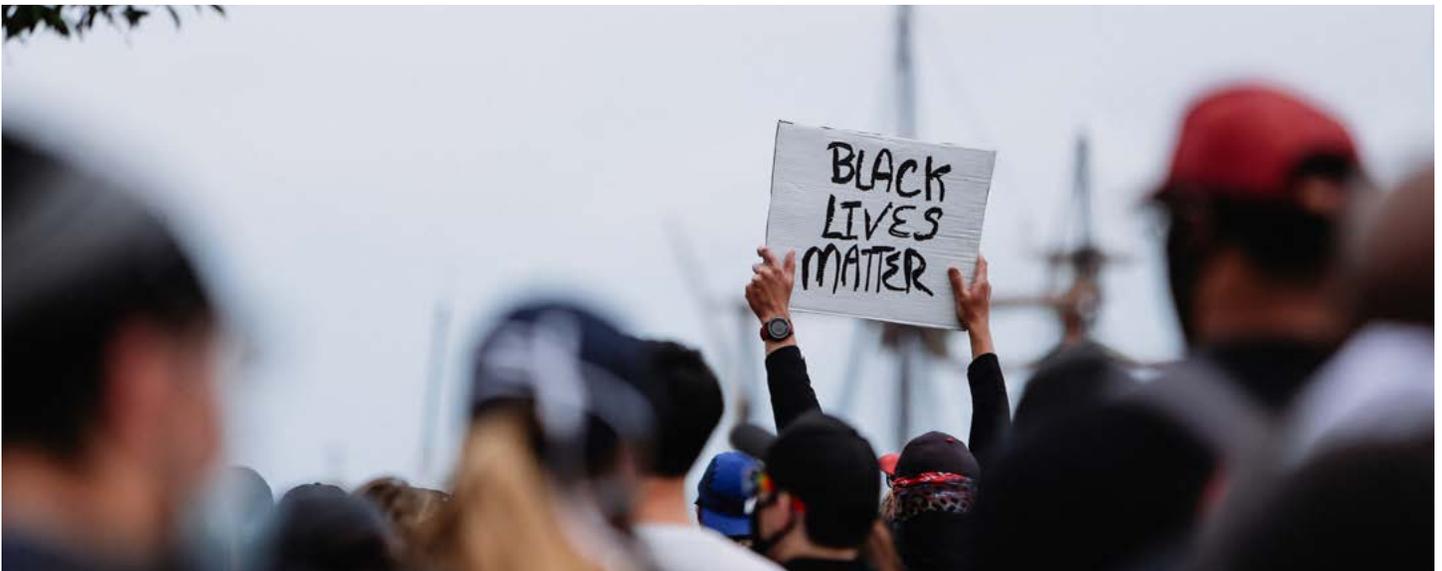
# 05 Brands concerned with movements for social change will prefer publishers for advertising

With the Black Lives Matter movement gaining massive traction on social media in 2020, the focus on the importance of diversity within our communities and institutions—and the urgent need for social change—has been reignited, reaching new heights around the globe.

“The responsibility of publishers to lead in this area is clear,” said Hartland. “It goes back to trust and media literacy within a fake news culture. Trusted media sources can lead the way and show brands that if they truly want to participate in social causes, publishers are better equipped to help them accomplish that mission than the walled gardens.”

Journalists haven’t been free from scrutiny around perceived bias over the years, but news outlets fare far better than social media platforms when it comes to public trust. For example, trust in traditional media stands at 61% among Americans and Canadians, while trust in social media falls short at 29%, according to [The Edelman Trust Barometer 2020](#)<sup>20</sup>.

Advertising with trusted news sources can actually improve a brand’s image in the eyes of consumers, according to a recent study by the Interactive Advertising Bureau (IAB). “Research finds 84% of consumers feel advertising within the news increases or maintains brand trust,” the IAB said<sup>21</sup>.



Many publishers have already stepped into important roles in the push for social change. For example, The Devil Strip based in Akron, Ohio published a collection of anti-racism resources for adults and children to read and watch, as well as a list of organizations accepting donations, such as the Young Black Professionals Coalition. This trend signals a call for advertisers to join the movement by working with local publishers to take action and demonstrate a true commitment to racial justice<sup>22</sup>.

## 06 Data privacy laws will show their teeth

Data privacy legislation enforcement has been making headlines recently, with 190 General Data Protection Regulation (GDPR) fines issued in Europe between March 2019 and March 2020, according to Pinsent Masons. These infringements included prominent companies British Airways and Marriott, resulting in fines of over £183 million and £99 million respectively in those two cases<sup>23</sup>.

In addition to governments levying fines, digital platforms are also taking data privacy regulations more seriously. Google Ad Manager has added warnings around data consent to its platform, as well as resources to help publishers comply with various privacy laws.

Regarding consent management, publishers can choose their own consent journey<sup>24</sup> within Google Ad Manager and decide to either build their own consent solution, use Google's platform, or integrate with the IAB's Transparency & Consent Framework (TCF) v2.0, which Ad Manager adopted in August 2020 as an additional way to support publishers<sup>25</sup>.

"Despite Google's adoption efforts, it was recently announced that IAB's framework isn't actually fully compliant with GDPR," said Tiffany Kelly, Digital Product Manager, Strategy & Innovation at Lineup Systems<sup>26</sup>. "The Belgian Data Protection Authority reported that the framework falls short of the GDPR principles of fairness and transparency, and doesn't meet legal requirements for processing data, among other faults."

To complicate matters further, the California Privacy Rights and Enforcement Act (CPRA) passed in November 2020, bringing revisions to the California Consumer Privacy Act<sup>27</sup>. The new legislation adopts many GDPR principles and is expected to become the U.S. standard. While such developments underscore the need for media organizations to adapt to a first-party data world, the way forward isn't entirely clear, as the recent news about the IAB framework indicates<sup>28</sup>.

"Another trend we may see, especially given the amount of revenue at risk for so many companies, involves questionable workarounds regarding the monetization of third-party data," Kelly added. "A recent ExchangeWire article reported that Apple enabled user-level tracking for Adobe in direct violation of its own policies for the Safari browser. In turn, Adobe actively encouraged users of its Experience Cloud platform to implement workarounds on their own sites to classify third-party tracking cookies as first-party."<sup>29</sup>

It's clear that data privacy laws are now showing some teeth, and compliance is no longer a thought exercise, but a necessity for publishers and advertisers alike. Staying up to date on legislation may be tricky, but it's well worth the effort to maintain customer trust and avoid hefty fines.

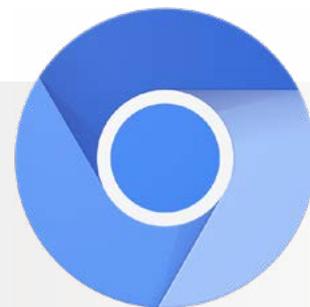
## 07 Emerging ad targeting options will continue to evolve

The topic of data isn't all doom and gloom for the digital advertising industry. Alternative ways to target consumers, which don't require third-party data, have emerged in response to evolving privacy legislation. As the sector shifts toward a first-party data future, contextual advertising strategies and identity solutions will play a major part in the transition, helping publishers improve customer experience for audiences and advertisers alike<sup>30</sup>.

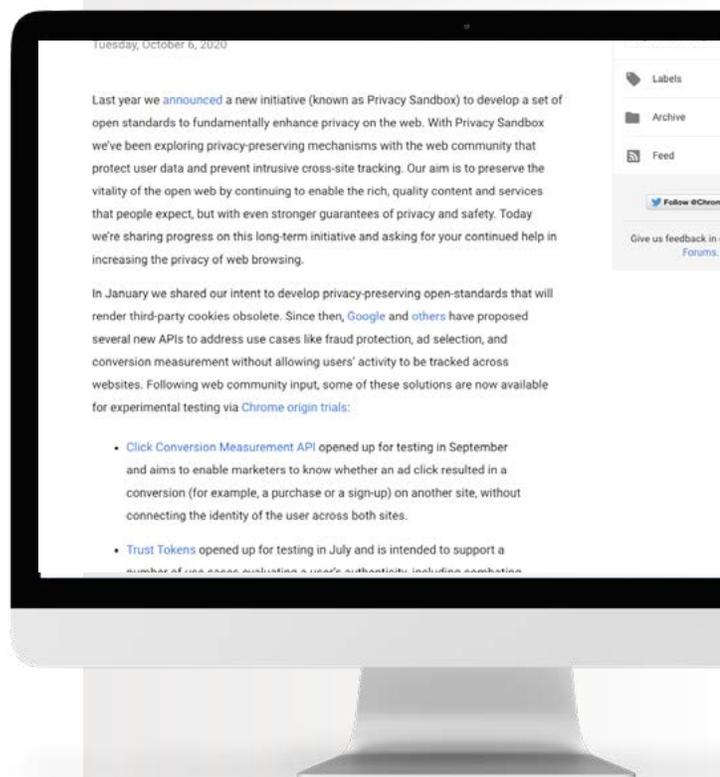
For example, Google's Privacy Sandbox aims to leverage contextual and first-party data targeting, interest-based targeting, and remarketing to serve ads without relying on user identifiers. These methods are intended to substitute the current programmatic advertising framework that relies on third-party cookies<sup>31</sup>.

"Google is asking for assistance from AdTech companies, advertisers, and publishers to gather use cases and help test the Privacy Sandbox for display and native advertising," Kelly said. "Right now the majority of participants are AdTech companies, which means publishers are at risk of having AdTech make key decisions for them that will directly impact their revenue moving forward."

In addition, in October 2020, Lotame announced the launch of its Panorama ID solution. This multi-channel solution uses identifiers such as consumer IDs and email addresses, as well as publicly available internet data, to enable advertisers to target audiences without depending on third-party cookies<sup>33</sup>.



The Washington Post is one media company participating in the Privacy Sandbox testing. Publishers can—and should—keep up to date with the progress of this initiative and register to participate via [Google's Chromium Blog](#)<sup>32</sup>.



## 08 5G will see greater adoption worldwide

The groundbreaking 5G wireless network is on track to support over 750 million connections around the globe by 2021, according to research from CCS Insight<sup>34</sup>. In the U.S. alone, 5G is currently available to 250 million T-Mobile customers. The launch of the 5G-capable iPhone 12 in October 2020 has been a major factor driving the technology's widespread adoption<sup>35</sup>.

5G is a significant development in wireless internet technology because of its ability to connect large devices such as TVs and computers at a faster speed, and in more remote geographic locations, than previously existing wireless networks could<sup>36</sup>.

As remote work continues to be the norm for many companies worldwide due to the COVID-19 pandemic, 5G technology can help these organizations facilitate smoother wireless connections, minimizing interruptions to their businesses as a result<sup>37</sup>.

For example, in the U.S., Verizon has equipped several manufacturing plants with 5G antennas<sup>38</sup>. In addition, in the U.K., 5G is expected to generate economic growth of up to £158 billion over the next decade, according to Vodafone<sup>39</sup>.

Increased adoption of 5G presents an opportunity for both media organizations and advertisers to serve more digital ads with richer content to consumers, due to the network's capability to foster stronger internet connections in greater numbers than ever before<sup>40</sup>. Publishers and brands should consider how 5G fits into their digital advertising strategies, and use this moment as an opportunity to experiment with more robust creative elements.



## 09 Brands that were once “niche” will dominate the market

While COVID-19 dealt a massive blow to industries such as travel and hospitality, other verticals like home exercising, food delivery, and gaming are thriving in today’s increasingly virtual world.

The fitness brand Peloton saw sales increase by 66% in early 2020, and the mobile fitness app TrueCoach saw its user base grow by 200% in the second quarter of the year<sup>41</sup>. In addition, food delivery companies have also experienced boosts in sales during the pandemic, with the U.K. company Deliveroo seeing a 900% increase in virtual gift card sales in Hong Kong alone<sup>42</sup>.

“In the U.K., we’ve noticed an increase in independent cafés, restaurants, bars, and breweries offering their own delivery services. Alcohol sales have increased as a result,” Levine said.

Once travel picks up and entertainment returns to full capacity, these industries will still likely perform well because our society has changed the way we work and live. That means publishers need to understand how to sell to these brands.

“Before the pandemic, media organizations were heavily focused on events and travel. Publishers now need to ensure their sales teams have a breadth of knowledge to consult and sell within these emerging verticals,” Hartland said.

## 10 More publishers will become ‘one stop shops’ for brands

In the past several years, growing numbers of publishers have begun providing marketing services. This signals a shift in the relationships media companies have with their customers, who previously would have simply submitted their own ads for placement in these publications and called the transaction complete<sup>43</sup>.

Today, many publishers are acting as agencies for advertisers, handling everything from strategy to copywriting to graphic design and ad placement—increasing their business value to these brands as a result.

For example, Gannett, the largest newspaper publisher in the U.S., has its own agency division that helps customers develop marketing plans and execute them across multiple platforms. U.S. publisher Condé Nast also has a creative agency called CNX, with a client roster that includes Bank of America, Dove, Google, and Gucci.

In Canada, Torstar provides full-service marketing offerings to its customers; and in the U.K., Time Out’s in-house creative solutions team supports advertisers with cross-platform campaigns<sup>44</sup>.

“What was once an experiment for only the largest publishers has proven to be a successful revenue stream for many media companies,” said Hartland. “It’s clear now that offering a full suite of marketing and agency services is incredibly attractive to brands and small businesses, and incredibly profitable for publishers.”

# Stay ahead of the pack

The digital advertising industry changes quickly. Media organizations and advertisers can keep up to date on evolving trends and technology to support their business development with the help of knowledgeable partners like Lineup Systems.

## Top Blog Posts from 2020

- How to Identify the Trends That Will Impact Your Advertisers Most
- Audience-Based Selling is Powered by a Robust Subscription Offering
- Disparate Data Presents Major Challenge for Publishers
- 5 Questions Ad Sales Reps Should Ask Their Audience Teams
- 8 Things Publishers Can Learn from Social Media Self-Service
- How to Prepare for the Death of Cookies
- Combined Revenue Models are the Future of Media
- Can You Really “Future Proof” a Media Business?

## Sources to Keep Up With All Year

- Lineup Newsroom
- AdExchanger
- AdWeek
- Digiday
- ExchangeWire
- MarTech
- The Drum
- What’s New In Publishing



Lineup Systems is the world’s leading provider of media sales technology. Lineup’s flagship product, Adpoint, is the preferred advertising system for media groups such as News Corp, ESI Media, Admeira, Telegraph Media Group, The New York Times and many more. Lineup also offers expert configuration and development services, empowering media brands to focus on what’s most important to their bottom lines. The latest addition to Lineup’s product portfolio is Amplio, a groundbreaking subscriptions management platform built to accelerate success in the subscription economy. For more information or get in touch, visit [lineup.com](https://lineup.com)

# Contributors



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With nearly a decade of experience in digital media, Tiffany is passionate about finding new ways to innovate, problem-solve and drive the industry forward. As Lineup Systems' Digital Product Manager, Strategy & Innovation, she writes for the company Newsroom, oversees the development of digital products and leads the Lineup Digital Services team, helping customers manage their ad operations and digital strategy. Prior to Lineup, Tiffany was the Director of Digital Operations for a U.S. based publisher and a Sr. Digital Media Buyer at an automotive ad agency.



## **LISA LEVINE, Digital Deployment Consultant, Lineup Systems**

Lisa is responsible for digital deployments into Lineup customers' businesses, working closely with them during the information gathering stage, their configuration, testing and go live stages of their deployments.

Lisa also works closely with the Lineup Product team on future roadmap items and integrations, the Managed Services team with support tickets, delivering training and keeping up to date with what is happening in the digital world.



## **SARAH HARTLAND, Head of Marketing, Lineup Systems**

Sarah is passionate about making complex ideas accessible for all. As Head of Marketing at Lineup Systems, she curates, edits and writes for Lineup's Newsroom and has been featured in several other industry publications. Prior to Lineup, Sarah specialized in digital marketing strategy for B2B SaaS startups. Her love for news media and enterprise software brought her to Lineup in 2018, where she's been focused on thought leadership and digital marketing ever since.



## **NEIL WEBSTER, Sales Director for UK & MENA, Lineup Systems**

Neil is passionate helping media owners to grow their businesses. As the media industry becomes ever more complex, Neil believes that media owners need to manage every potential revenue stream and use business resources to maximise this. Neil joined Lineup in 2019 is responsible for looking after customers and developing business in the UK, Eire, Middle East and Africa. Before Lineup, Neil has extensive experience as a commercial and managing director in several UK media businesses running multimedia revenue streams and commercial teams. Outside of work, he is a news junkie, very average runner and sea swimmer and lives in a small coastal town outside London with 3 teenage children and 2 cats!



## **AFTON BRAZZONI, Copywriter, Uplift Content**

Afton's background in journalism and experience in marketing and communications over the past decade have positioned her to tell rich stories about the tech and media industries across various publications and platforms.

# Sources

- <sup>1</sup> Lineup Systems, “[2020 Digital Advertising Trends: Predictions for Publishers](#)”
- <sup>2</sup> Lineup Systems, “Adweek Report Confirms: Combined Revenue Models Key to Success”
- <sup>3</sup> NiemanLab, “[More Americans are paying for online news—and those who do say they’re unlikely to stop](#)”
- <sup>4</sup> Lineup Systems, “Report: Combined Revenue Models Gaining Traction in Media Industry”
- <sup>5</sup> RadioToday, “What can we learn from Times Radio?”
- <sup>6</sup> Northstar Meetings Group, “U.S. Election Outcome Yields Hope, But Plans for In-Person Events Shift to Later in ’21”
- <sup>7</sup> Fast Company, “The future of live events is here and depends on these 4 factors”
- <sup>8</sup> Google Ad Manager, “Powering live events with Ad Manager’s Dynamic Ad Insertion”
- <sup>9</sup> VentureBeat, “[Newzoo: 2.7 billion gamers will spend \\$159.3 billion on games in 2020](#)”
- <sup>10</sup> Tapjoy, “Mobile Game Demographics—Who’s Playing In 2019?”
- <sup>11</sup> TheGamingEconomy, “Bidstack Partners with Ubisoft for Hyper Scape In-Game Advertising”
- <sup>12</sup> Intrado GlobeNewswire, “USA Today Sports Media Group and Super League Gaming Partner on Sports Events; Starting with Madden NFL 20 Tournament”
- <sup>13</sup> The Verge, “Streaming was part of the future—now it’s the only future”
- <sup>14</sup> The Nielsen Total Audience Report Hub
- <sup>15</sup> Tech Crunch, “Spotify introduces a new music-and-spoken word format, open to all creators”
- <sup>16</sup> Adworld, “Virgin Media to Launch Adsmart Offering Next Week”
- <sup>17</sup> Fierce Video, “Samsung launches its own demand-side advertising platform”
- <sup>18</sup> Christianity Today, “Sony’s Pure Flix Acquisition Could Raise The Bar For Christian Movies”
- <sup>19</sup> The Guardian, “Quibi: shortform streaming service to shut down after six months”
- <sup>20</sup> Edelman Trust Barometer 2020.
- <sup>21</sup> IAB, “The News Trust Halo: How Advertising in News Benefits Brands”
- <sup>22</sup> Poynter, “How 13 local news publishers have responded to the Black Lives Matter demonstrations”
- <sup>23</sup> Pinsent Masons, “[EU data protection enforcement highlights cyber focus](#)”
- <sup>24</sup> Google Ad Manager, “[Publisher EU user consent journeys](#)”
- <sup>25</sup> IAB Europe, “Transparency & Consent Framework v2.0”
- <sup>26</sup> Tech Crunch, “IAB Europe’s ad tracking consent framework found to fail GDPR standard”
- <sup>27</sup> Kelley Drye, “It’s Here: California Voters Approve the CPRA”
- <sup>28</sup> HubSpot, “A Basic Definition of First Party, Second Party, & Third Party Data”
- <sup>29</sup> ExchangeWire, “Apple and Adobe in Alleged Privacy Workaround”
- <sup>30</sup> Lineup Systems, “Every Article You Need to Read About Advertising Data”
- <sup>31</sup> MarTech Advisor, “How Will Display and Native Advertising Work Without Third-Party Cookies?”
- <sup>32</sup> Chromium Blog, “Progress on Privacy Sandbox and Building a More Private Web”
- <sup>33</sup> ExchangeWire, “Lotame Unveils Panorama ID, the First Global Cookieless Identity Solution for a Privacy-First Open Web”
- <sup>34</sup> Computer Weekly, “Cheaper and more available smartphones set to drive 5G adoption surge”
- <sup>35</sup> The Motley Fool, “3 Reasons Why the COVID-19 Pandemic May Fast-Forward 5G Adoption in the U.S.”
- <sup>36</sup> HubSpot, “5 Ways 5G Will Impact Marketers”
- <sup>37</sup> Lineup Systems, “Working From Home Indefinitely? Focus on These 4 Areas”
- <sup>38</sup> The Motley Fool, “3 Reasons Why the COVID-19 Pandemic May Fast-Forward 5G Adoption in the U.S.”
- <sup>39</sup> Raconteur, “How 5G could boost the post-COVID economy”
- <sup>40</sup> HubSpot, “5 Ways 5G Will Impact Marketers”
- <sup>41</sup> Forbes, “Why The Surge In Consumer Demand For High-Tech Home Gyms May Just Be Getting Started”
- <sup>42</sup> Jumpstart, “Deliveroo sees 900% increase in sales of virtual gift cards as firms in Hong Kong look for new ways to engage employees amid COVID-19”
- <sup>43</sup> Lineup Systems, “Publishers Are Becoming Agencies—Here’s Why”
- <sup>44</sup> TimeOut, “Creative Solutions”