Acknowledgements

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The final report, findings and recommendations were not influenced by external sponsors.

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About US

The Interactive Advertising Bureau (IAB) empowers the media and marketing industries to thrive in the digital economy. It is comprised of more than 650 leading media and technology companies responsible for selling, delivering, and optimizing digital advertising and marketing campaigns.

Working with its member companies, IAB develops technical standards and best practices, and fields critical research on interactive advertising, while educating brands, agencies, and the wider business community on the importance of digital marketing. The organization is committed to professional development by elevating the knowledge, skills, expertise, and diversity of the workforce across the industry. IAB advocates for its members and promotes the value of the interactive advertising industry to legislators and policymakers through the work of its public policy office in Washington, D.C.

Founded in 1996, IAB is headquartered in New York City and has a West Coast office in San Francisco.
The IAB Programmatic+Data Center is a unit within IAB, founded to enhance existing IAB resources, and to drive the data agenda for the digital media, marketing, and advertising industry. The Programmatic+Data Center’s mission is to expand the programmatic universe, increase the understanding of how data drives business, and make them easily accessible to all.

IAB Programmatic+Data Center is focused on:

- Gathering industry thought leaders to drive and set the data agenda
- Funding industry research to provide benchmarks and actionable insights on data management across platforms including programmatic, mobile, and the internet of things
- Developing industry best practices, guidelines, and standards for privacy, data security, measurement, and consumer data protection
- Creating educational materials including certification, infographics, videos, webinars, and seminars to demystify data for marketers and advertisers
- Hosting data-focused events that feature industry luminaries discussing data related topics

Accenture Interactive

Accenture Interactive, a Strategic Partner of the Programmatic+Data Center, is reimagining business through experience. We drive sustainable growth by creating meaningful experiences that live at the intersection of purpose and innovation. By connecting deep human and business insights with the possibilities of technology, we design, build, communicate and run experiences that make lives easier, more productive and rewarding. Accenture Interactive is ranked the world’s largest digital agency by Ad Age and has been named a Most Innovative Company by Fast Company. To learn more, follow us @AccentureACTIVE and visit www.accentureinteractive.com.
The purpose of this report:
Programmatic advertising has become a key element in most digital ad budgets for its scale and efficiency in targeting and placing digital advertising. As a result, more brands are bringing the management of programmatic in-house. This shift is changing the role that brands and agencies play in this arena and the structure of how they are managed.

With programmatic's rise, the IAB Programmatic+Data Center aims to help inform its clients how programmatic is evolving the digital media landscape. The purpose of this report is to discuss the role that programmatic plays in the broader digital media ecosystem and how it is evolving, especially with the changing regulatory environment around data privacy. The insights from this report were gleaned from a variety of sources, including interviews with subject matter experts, a quantitative IAB survey, and additional secondary research from industry leaders.

Countries of Focus:
The IAB conducted a survey in three regions: the U.S., Europe, and Latin America. Six European countries were included in the survey: France, Germany, Italy, Portugal, Spain, and the UK. Two Latin American countries were also included: Brazil and Mexico. The report will also cite data from other sources than the survey, encompassing full international numbers (including APAC).
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Executive Summary

- Programmatic advertising has been on a meteoric rise, with its share of digital ad spend worldwide expected to grow to 68% this year. The U.S. and Europe are already deeply entrenched in programmatic with the U.S. share of programmatic spend at 85% and most European countries’ share of digital ad spend greater than 80%.
  - Programmatic is poised for additional growth as mobile and digital video usage continues to rise. The Latin American (LatAm) market, in particular, is poised for programmatic growth as mobile usage is rising dramatically.
- Brands desire more control over programmatic, and we see an international trend towards brands in-housing some or all of this function. The majority of brands surveyed have moved some function of programmatic buying in-house. More than a fifth (21%) of organizations have completely moved this function in-house, and almost half (48%) have partially moved programmatic buying in-house.
  - Almost three-quarters of European organizations (74%) have completely or partially moved programmatic in-house, which is more than organizations in either the U.S. or Latin America.
  - In-housing of programmatic allows brands more transparency over the operation, which improves audience reach and increases cost efficiency and campaign effectiveness.
- Across brand organizations that have brought their programmatic in-house, most are taking a hybrid approach and partnering with an agency on some elements of the operation.
  - Many organizations are either currently working with or would consider working with a partner on technology infrastructure and campaign analysis/optimization.
  - However, there are some functions, like managing third-party contracts and KPI development, that these organizations prefer to keep in-house.
- As data privacy concerns have grown, Europe has been at the forefront of establishing regulations to protect consumer privacy and data. The General Data Protection Regulation (GDPR) was implemented in the European Union (EU) in May of 2018, and as a result the EU has become the gold standard in data privacy regulations. The U.S. followed suit with the California Consumer Privacy Act (CCPA) in January 2020, and other states are set to follow. Latin America has been slower in establishing regulations.
  - While many organizations have noted an improvement in data quality and improved consumer trust, there are still questions on how effective GDPR has been. This is likely attributed to the fact that guidelines are nebulous, and—without a governance model—most organizations are struggling with what constitutes compliance.
  - While there were concerns that regulations would negatively impact consumer trust of brands and limit brand profitability, those concerns have been largely unfounded. In fact, an unexpected benefit of regulations is that brands are now working with cleaner data. While regulations have culled down the number of customers who can be targeted, those that remain are more relevant and interested, resulting in a more effective ad spend.
• The future of the regulatory environment continues to evolve, but the anticipated limit or disappearance of cookies and third-party data magnifies the need for companies to manage their own first-party data. Thus, the ability to implement effective programmatic advertising hinges on an organization’s ability to obtain and manage their customer’s data.

• The digital ecosystem is constantly evolving through innovation and technological advancements, which will create new opportunities and needs within programmatic, both for brands and agencies.

• The COVID-19 pandemic has impacted brands across the world, with many limiting or shutting down operations. As a result, short-term spend on advertising has decreased and/or been repurposed, though it is unclear what impact, if any, this pandemic may have on long-term advertising.
  ° Some struggling brands, like those in hospitality or travel, have almost eliminated advertising. Others that are still operating, like grocers, CPGs and telecommunications, are creating more relevant ads to reflect the current environment.
Defining Programmatic Media Buying

Programmatic allows a brand to target consumers, tailor messaging, and purchase relevant ad space more effectively by leveraging data through an automated process. It is, for instance, an ad for swimwear being served to a 19-year-old female college freshman three weeks before Spring Break, while she is reading her favorite beauty blog.

Programmatic media has had a relatively brief but illustrious history. It all started with the lowly banner ad, which ushered in the advent of ad servers, which begot ad networks, RTB ad exchanges and ultimately, programmatic. It is staggering to see how much more effective ad targeting has become in a span of 20 years. The traditional approach to buying and placing ads seems downright primitive now by comparison.

Programmatic allows brands to market to different audiences by segmenting across demographics like age, gender, or geography, and behaviors like media consumption. As different segments are identified, a brand can then tailor messaging for that particular segment while sending differentiated and relevant messages to particular groups simultaneously. All of this is executed algorithmically through an automated process, which means that it is done in real time, without relying on human touch. As a result, brands are only paying for relevant ad content, delivered to the right people at the right time—which results in a much more efficient and effective ad spend. One digital executive described programmatic as “buying against a target, not buying content or properties. It’s a target we can measure and then quantify the impact.” It is no wonder that brands have overwhelmingly turned to programmatic media buying over the traditional “spray and pray” approach where brands cast a wide net and hope for the best.
The Growth of Programmatic

The terms “customer-centric,” “authenticity,” and “personalization” are perennial marketing buzz words. Everyone is trying to market to customers in a way that feels authentic and relevant. But in order to do that, we need to know about our customers—that is, we need data! As brands started to capture more and more data from their customers, they became capable of segmenting their customers into groups and developing messaging to these particular groups. With this came the need to deliver these messages in an efficient way. The old process of manually buying and placing ads limited the extent to which brands could target their communications. But with the advent of programmatic, brands are able to deliver targeted messaging to a relevant audience by automating the transactions of media via a technology platform, in real-time, while reducing human error.

Programmatic has proven its value to the industry, and organizations are devoting more of their digital ad spend to it. In fact, according to the Zenith Programmatic Marketing Forecasts 2019 Report, programmatic’s share of digital ad spend worldwide is expected to grow to 68% this year. Worldwide, programmatic’s share of digital ad spend has seen a 54% increase in the last five years. More than two of every three display ad dollars are being spent programmatically.

Across the top five programmatic markets internationally, the U.S. is far and away the biggest spender on programmatic digital ad spend. Its volume is more than five times that of the second-largest market, China. While China has been a leader in technology adoption and has four times the population of the U.S., it has been slow to invest in digital ad spend and programmatic. In contrast to China, the third-largest market, the UK, is small but programmatically mighty. While a small country in terms of size and population (only a fifth the size of the U.S.), the UK devotes far more to digital ads and programmatic than other countries its size. Europe, overall, is a strong programmatic region as four of the top eight markets are European (UK, Germany, France and Italy).
Across these top eight markets, their allocation of digital display spend to programmatic is substantially higher than the international average of 68%. The UK, in fact, is leading the charge internationally with an estimated 89% of digital display ad spend devoted to programmatic in 2020. The U.S. is close behind at almost 85%. France and Germany also allocate the majority of their display spend to programmatic at 80% and 73%, respectively.

The shift in spend towards programmatic is outpacing the increases in overall marketing spend, which means that programmatic is getting a bigger slice of the ad spend pie. As the medium continues to evolve, consequently, organizations must be nimble and frequently revise their approach. As one international digital executive said, “As technology and data evolves, the ability of programmatic continues to evolve. Where we were two years ago looks very different from today and will look very different two years from now.”
Growth in Mobile and Video Boosts Programmatic

Mobile is the most programmatic format, and mobile ad spending represents the majority of programmatic transactions. Mobile ad spend will account for more than 75% of digital ad spend worldwide in 2020, and the share of mobile is expected to grow to 80% by 2023. The vast majority of mobile ads are traded programmatically (more than 80% in both the U.S. and Europe). As mobile grows, this will only increase the focus on programmatic.

The top five mobile ad spend markets mirror the top programmatic markets with the U.S. and China leading the charge. While China was dwarfed by the U.S. in programmatic spend, the gap is much smaller in mobile ad spend with China 40% smaller (rather than 500% smaller) than the U.S. However, the U.S. is also widening the gap with greater growth than China in 2019 (22% vs. 19%).

Beyond the U.S., there is substantial growth across the globe. Looking at the top ten mobile ad spend markets, four of them are APAC (China, Japan, Australia and South Korea), three are European (UK, Germany and France) and two are North American (U.S. and Canada). Latin America is represented by only one country, Brazil, but that country is seeing some of the highest growth within mobile (+33%).
Programmatic is also expanding its reach in video. Projected digital video ad spend share worldwide is expected to be 75% this year (up more than 8 percentage points from 2019). Similar to overall programmatic and mobile ad spend, the top five programmatic video markets are similar—except for Australia as the fifth largest market rather than Germany. Interestingly, Brazil is the sixth largest market and has the highest growth among the top ten markets. With its growth trajectory, it will soon usurp Australia as the fifth largest market.
Managing Programmatic Media Buying

As the prominence of programmatic rises, there is a desire for more control. As is the case with many elements of advertising, more and more brands have decided to bring the capability in-house. More than a fifth of organizations surveyed internationally indicated they have completely moved programmatic buying in-house. While less than 20% of the U.S. and LatAm organizations surveyed had indicated a complete move to in-house (18% and 16%, respectively), almost a third of European organizations (31%) have completely moved in house. Additionally, almost half of all organizations internationally (48%) have partially moved programmatic in house with plans to continue. This is similar across regions.

Intent to bring Programmatic In-House -Global View

- Completely moved in house and plan to continue: 21%
- Partially moved in house and plan to continue: 48%
- Tried to bring in house, but outsourced to partners: 16%
- No plans to bring in house: 15%

Note: Average of U.S., Europe (excluding UK) and Latin America data
If we look at the aggregate of organizations, more than two thirds (69%) have partially or fully brought their programmatic in-house. Europe is leading that trend with almost three quarters (74%) of organizations indicating this shift towards in-house. The U.S. is slightly behind at 69%, and LatAm is lagging at 63%. It is interesting that while the U.S. is the largest programmatic market, they are not the leaders in in-housing. However, this may be due to the size of the U.S. and the difficulty of managing the volume and number of partnerships in that market. Additionally, as we will explore further in this report, Europe has been at the forefront of data regulations with GDPR. The access to and control of data plays an integral role in programmatic effectiveness. European organizations may be farther along in managing their data, and thus might be more prepared to bring this function in-house.

Benefits of In-Housing Programmatic

In-housing of programmatic functions allows for brands to have more control over their operations and more transparency. Overall, programmatic allows for more effective targeting, which increases efficiency and effectiveness. Not surprisingly, campaign effectiveness and cost efficiency were noted as the two most important objectives of in-housing programmatic internationally. “It’s an issue of transparency. We had a contract through our agency, but they didn’t have a transparent programmatic offering. Without transparency, we can’t improve ad effectiveness.” said one CPG executive. Better audience targeting was the third most important objective internationally. Interestingly, return on investment (ROI) attribution, though listed as the number one objective in the U.S., is the least important objective in both Europe and LatAm.
While the benefits of in-housing are many, transitioning the operations to in-house is no small feat. It takes planning and a multi-phased approach, which oftentimes takes years to complete. As was commonly called out in the industry interviews we conducted, this type of transition requires buy-in across the organization and especially from top management. As one ad exec stated, “It took a long time to convince the C-suite that we had to bring it in-house. We started with just one function and had to prove that it worked before we could bring other programmatic functions in. It was a journey.” It also requires flexibility, as organizations’ needs evolve, and it is only once they’ve started down this path that an organization truly understands the requirements. “Our digital marketing platform was archaic, so we had to rebuild the tech stack from scratch. It wasn’t until we started to rebuild it that we realized we had to completely rebuild our MarTech and AdTech to support the new platform,” a hospitality executive shared.

### Structuring In-House Programmatic Teams

Within the organizations that have brought their programmatic operations in-house, most are still taking a hybrid approach and partnering with an agency on some elements of their operations, which is similar to what we see in organizations across the world. As the chart below demonstrates, many organizations are employing more than one strategy for their programmatic buying. While they may have their own teams run some campaigns entirely in-house, they may also choose to work with a Demand Side Platform (DSP) and/or agency to execute other campaigns on their behalf. In Europe, about half of organizations are saying they have their teams running campaigns in-house and via a direct contract with a DSP. There are some differences across regions. In Latin America, organizations are executing more programmatic with a direct contract with a DSP versus in-house. And in the U.S., almost a fifth of organizations are working with a DSP that also executes campaigns. Despite these regional differences, it is clear there remains a need for outside support.

<table>
<thead>
<tr>
<th>Question</th>
<th>EU</th>
<th>US</th>
<th>LatAm</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campaign effectiveness</td>
<td>39%</td>
<td>42%</td>
<td>44%</td>
<td>42%</td>
</tr>
<tr>
<td>Cost efficiency</td>
<td>38%</td>
<td>43%</td>
<td>44%</td>
<td>41%</td>
</tr>
<tr>
<td>Extended audience reach</td>
<td>34%</td>
<td>27%</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Better audience targeting</td>
<td>30%</td>
<td>40%</td>
<td>31%</td>
<td>34%</td>
</tr>
<tr>
<td>Real time optimization</td>
<td>30%</td>
<td>34%</td>
<td>22%</td>
<td>28%</td>
</tr>
<tr>
<td>Cross channel planning and execution</td>
<td>23%</td>
<td>16%</td>
<td>23%</td>
<td>21%</td>
</tr>
<tr>
<td>Data management and data ownership</td>
<td>22%</td>
<td>36%</td>
<td>19%</td>
<td>25%</td>
</tr>
<tr>
<td>ROI attribution</td>
<td>18%</td>
<td>48%</td>
<td>19%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Note: EU data do not include UK
Managing Programmatic Functions

Across functions, many organizations are either currently working with or would consider working with a partner to execute key functions of programmatic buying. For example, more than half of European organizations have or would relinquish control of technology infrastructure (outside of algorithm creation). Similarly, about half of organizations have or would rely on a partner for functions related to campaign analysis and optimization. “While I read a lot in the press about programmatic, I expect my agency team to be coming to me with new ideas on what to test. Before we were just trying to keep the fire burning and get the right programmatic team in place, now it’s about being future-facing,” stated a digital ad executive.

That said, there are some functions of which organizations would prefer to maintain control. Foundational functions, like building the technology infrastructure, algorithm creation or Key Performance Indicator (KPI) development, are important for most organizations to keep in-house. While the decision on what technology to use is typically made in-house, the actual technology is likely outsourced to a vendor. Similarly, most organizations want to manage partners and third-party contracts directly. Other functions, like Campaign Planning, Execution and Analysis, are split with about half of organizations willing to relinquish control to a partner and the other half preferring to keep those functions in-house.

However, this data demonstrates that there is a hybrid structure at play. While bringing functions in-house increases transparency and efficiency, the support of an outside partner remains crucial. In fact, as the recent COVID-19 pandemic has demonstrated, many brands are relying more on their agencies for data analytics on modeling consumer behavior, as well as an outside perspective on how other brands are handling the pandemic. As one energy executive noted, “At first, we were asking [our agency] how to get data. Now that we have it, we are asking them for help on how to use and interpret this new data.”

Note: EU data do not include UK
Programmatic Functions - Global Average

<table>
<thead>
<tr>
<th>Technology Infrastructure</th>
<th>Currently Working with Partner</th>
<th>Consider Working with Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data science/algorithm creation</td>
<td>18%</td>
<td>35%</td>
</tr>
<tr>
<td>Building the technology</td>
<td>29%</td>
<td>36%</td>
</tr>
<tr>
<td>Data management</td>
<td>31%</td>
<td>34%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Managing Partners and Contract</th>
<th>Currently Working with Partner</th>
<th>Consider Working with Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publisher data relationships</td>
<td>21%</td>
<td>31%</td>
</tr>
<tr>
<td>Publisher inventory relationships</td>
<td>23%</td>
<td>25%</td>
</tr>
<tr>
<td>Ownership of DMP contracts</td>
<td>18%</td>
<td>23%</td>
</tr>
<tr>
<td>Training and education</td>
<td>23%</td>
<td>23%</td>
</tr>
<tr>
<td>Ownership of DSP contracts</td>
<td>16%</td>
<td>22%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Campaign Planning, Execution, Analysis</th>
<th>Currently Working with Partner</th>
<th>Consider Working with Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campaign optimization</td>
<td>30%</td>
<td>32%</td>
</tr>
<tr>
<td>Trafficking creative/Ad operations</td>
<td>20%</td>
<td>31%</td>
</tr>
<tr>
<td>Audience planning and validation</td>
<td>23%</td>
<td>28%</td>
</tr>
<tr>
<td>Campaign analysis and reporting</td>
<td>23%</td>
<td>29%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strategic Direction</th>
<th>Currently Working with Partner</th>
<th>Consider Working with Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>KPI framework</td>
<td>15%</td>
<td>27%</td>
</tr>
<tr>
<td>Campaign strategy and direction</td>
<td>24%</td>
<td>30%</td>
</tr>
</tbody>
</table>
Comparing across regions, Europe and Latin America evaluated these functions similarly in terms of their desire to work with partners versus manage in-house. The U.S., on the other hand, appeared to have a stronger desire for partner support across functions (see table below). The U.S. has been at the forefront of programmatic implementation, so their comfort with the function may manifest itself by relinquishing control to agency partners.

The Implementation of GDPR
The digital landscape is young and evolving quickly: the space is ever-changing and proving difficult to regulate. Not surprisingly, there are sensitivities around how organizations are collecting and using consumer data. While Europe has been at the forefront of establishing regulations to protect consumer data and privacy, other countries are following suit.

After years of negotiation, the General Data Protection Regulation (GDPR) was implemented in the EU in May 2018. The goal of GDPR was to align existing data protection protocols and increase the level of protection for individuals, thereby giving customers greater control over their data and more transparency about the data being collected. Europe has set the standard for how organizations should manage their data, to which organizations internationally are adhering. Subsequently, the California Consumer Protection Act (CCPA), introduced in January 2020, was the first data privacy law enacted in the U.S. With more states following behind, these heightened levels of data protection are rapidly becoming standard in the U.S. as well. Relative to other regions, LatAm has been late to enacting its guidelines.

<table>
<thead>
<tr>
<th>Programmatic Functions by Region</th>
<th>EU</th>
<th>US</th>
<th>Latin America</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology Infrastructure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data science / Algorithm creation</td>
<td>17%</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td>Building technology</td>
<td>31%</td>
<td>28%</td>
<td>34%</td>
</tr>
<tr>
<td>Data management</td>
<td>37%</td>
<td>38%</td>
<td>38%</td>
</tr>
<tr>
<td>Managing Partners and Contracts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Publisher data relationships</td>
<td>20%</td>
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<tr>
<td>Campaign Planning, Execution, Analysis</td>
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<td></td>
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<tr>
<td>KPI framework</td>
<td>15%</td>
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The Implementation of GDPR
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After years of negotiation, the General Data Protection Regulation (GDPR) was implemented in the EU in May 2018. The goal of GDPR was to align existing data protection protocols and increase the level of protection for individuals, thereby giving customers greater control over their data and more transparency about the data being collected. Europe has set the standard for how organizations should manage their data, to which organizations internationally are adhering. Subsequently, the California Consumer Protection Act (CCPA), introduced in January 2020, was the first data privacy law enacted in the U.S. With more states following behind, these heightened levels of data protection are rapidly becoming standard in the U.S. as well. Relative to other regions, LatAm has been late to enacting its guidelines.
Only a few countries in Latin America have enacted legislation on data protection: Argentina, Colombia, Chile, Mexico, Peru, and Uruguay. Brazil's new data protection law (LGPD), resembles the EU's GDPR and comes into force in August 2020.

There is unanimous agreement among organizations surveyed internationally that GDPR compliance in programmatic is important. As the survey data indicates (see below), there is a concern across all elements of data privacy: data collection, consumer consent and data security, with the top concern being the quantity and quality of the data collected under GDPR compliance.

However, this data illustrates that there isn't one area of focus but rather an overall concern with compliance. This is likely the result of nebulous guidelines and most organizations are struggling with what constitutes compliance. Across the globe, the interpretation of privacy guidelines has varied, with no consistent governing body to monitor implementation. The result is that things have been left open to interpretation. “The guidelines were intentionally left vague because there is no governance model, so it is left up to the organization to decide how to interpret things. As a result, I think we are all handling things a little differently,” shared a digital executive. As these regulations became a reality, many organizations felt ill-prepared and, even two years later, lack clarity.

Note: U.S. data not available
The Impact of Data Regulations

Now that regulations have been in place for two years in Europe, organizations have adapted to the new regulatory environment. By and large, the feedback has been positive. In a recent IAB survey, European organizations shared their feedback on different elements of GDPR. More than two-thirds of organizations strongly or somewhat agreed that their data quality has increased, while fraudulent traffic has decreased since GDPR. Similarly, 67% of organizations agreed that they had gained more user trust.

And GDPR has not appeared to stem the spend in programmatic: 70% of organizations surveyed either strongly or somewhat agreed that they had increased their programmatic spending and direct buys. Fortunately, almost three-quarters of organizations agreed they had trusted partners to help with GDPR, which further corroborates the importance of agency partnership.

However, the feedback is not unilaterally positive. First, there seems to be some lack of clarity around the impact of GDPR by some organizations. Almost a quarter of organizations responded neutrally (neither agree nor disagree) to statements about an increase in data quality and reduction in fraudulent traffic. Similarly, 27% of European organizations neither agreed nor disagreed that they had gained user trust since GDPR. This further suggests that the lack of clarity and governance of GDPR may have dampened the impact of these important regulations. “While it would take a lot to be prescriptive, given all the nuances, there isn’t a focus on being clear and concise, so advertisers and data partners are caught in the swirl,” shared a digital executive.

Similarly, when asked about the loss of volume due to GDPR, while almost half of organizations (49%) agreed they had lost volume, almost a third (31%) neither agreed nor disagreed.

### DATA QUALITY HAS INCREASED SINCE GDPR

- **Strongly agree, 24%**
- **Somewhat agree, 47%**
- **Neither agree nor disagree, 21%**
- **Somewhat disagree, 6%**
- **Strongly disagree, 2%**

- **Neither agree nor disagree, 49%**
- ** Agree, 24%**
- **Disagree, 6%**
- **Neutral, 21%**
FRAUDULENT TRAFFIC HAS BEEN SIGNIFICANTLY REDUCED

- Strongly agree, 22%
- Somewhat agree, 46%
- Neither agree nor disagree, 25%
- Somewhat disagree, 7%
- Strongly disagree, 1%

GAINED CONSUMER TRUST SINCE GDPR

- Strongly agree, 24%
- Somewhat agree, 43%
- Neither agree nor disagree, 27%
- Somewhat disagree, 6%
- Strongly disagree, 1%
Accessing consumer data is paramount to programmatic advertising, so adhering to these regulations remains a focus for brands and agencies. At this point, however, GDPR does not appear to be too disruptive to advertising. While there were concerns that these regulations would negatively impact consumer trust for brands, and a brand's own profitability, those concerns have been largely unfounded, according to industry interviews. Neither has there been a strong consumer backlash (in terms of inquiries or complaints) or an impact to profitability. “We thought it was going to be another Y2K and everything would go to pot. It turns out, the anticipation was worse than the reality,” stated a Consumer Packaged Goods (CPG) executive.

Access to Data Remains a Concern
Continued access to and use of third-party data is uncertain. As heightened regulations became a reality, many organizations realize that the onus is on them to establish and manage their first-party data better. Many have gone to great lengths to build a Data Management Platform (DMP) and refresh their first-party data. Furthermore, the use of and access to third-party data is disappearing, as is evidenced by Google's announcement to phase out the use of third-party cookies by 2022 (Apple's Safari and Mozilla’s Firefox have already implemented similar measures). While there are solutions that can still allow for ad tracking (like Google's Privacy Sandbox), it is unclear what will and will not be available. As a result, there is a greater emphasis being placed on an organization's ability to access and manage their customer data. “First party data is the most critical data. As standards on third-party data change, we need to take control. If we don't own the data, we can't leverage the data,” said a digital executive in hospitality. Not surprisingly, those who have in-housed more of their programmatic operations seem better prepared than those who have not, because of the control they have implemented over their data.

While regulations are a looming threat, they also revealed some benefits. Whether first- or third-party, organizations are now working with “cleaner” data. While regulations have culled down the number of customers who can be targeted, those that remain are more relevant and interested, resulting in a more effective ad spend. Also, only targeting qualified customers can result in building a better sense of trust between brands and their customers. “We are transforming our relationship with our customers. Our ads are more thoughtful and targeted. We want our customers to learn that if they’re getting an ad from us, it is worth looking at,” stated a digital leader.
Predictions for Programmatic

Future Regulatory Impact
As the future of the regulatory environment continues to evolve, the anticipated limit or disappearance of cookies and third-party data just magnifies the need for companies to manage their first-party data. This will allow them to more effectively implement programmatic advertising. Similarly, organizations will require more data transparency from their partners, such as DSPs, to understand what data is being accessed and how it is being used.

Looking forward, brands feel optimistic about the future of regulations and the power it puts back in the hands of consumers. However, in light of future regulations, organizations are craving clarification on how regulations impact them, rather than being left to interpret things on their own. “[These regulations] are not a light switch, they’re a dimmer. We can still be compliant with minimal business disruptions if we work together [with regulators],” shared an industry executive.

With this regulatory uncertainty, native contextual ads are expected to increase in popularity. These are ads that are relevant to the content they are displayed with and which share a cohesive and seamless design with that content. These ads do not require cookies or customer data, so they are GDPR compliant. Additionally, they are designed to blend into content while relating to the topic a viewer is interested in, thereby feeling personalized to that viewer.

Expanding Programmatic Platforms
The digital ecosystem is constantly evolving, with new innovation and technological advancements. With it, programmatic will continue to mature as well, inevitably creating new opportunities and needs for brands and agencies.

The rise of CTV (Connected TV) and OTT (Over-the-Top) has changed the way people watch TV and see advertising. With video content being consumed across web, mobile, and other connected devices, programmatic TV is going to gain more prominence with its data-driven approach for buying and delivering ads.

Additionally, we are seeing the soaring adoption of voice-activated devices, with voice-first browsing becoming a common behavior. This presents a unique opportunity for brands to get into the consideration set earlier in the path to purchase, and create a seamless sale, all without the need to physically interact with a device. Programmatic placement for voice-activated platforms will become a valuable way to interact with a relevant audience.
Finally, Digital Out of Home (DOOH) has been growing in prominence. With the advent of LED billboards, messaging and content is dynamic and much more eye-catching than static billboards. At the moment of this writing, DOOH is experiencing a temporary headwind due to COVID-19, which we expect will dissipate once the impact of the pandemic subsides. At that point, DOOH’s growth trend should resume and accelerate.

In 2019, IAB reported that programmatic represented 40% of the overall $10 billion DOOH ad revenue in the U.S. When you layer on the capabilities of geo-location technology, and wearables, the notion of true omnichannel advertising, which follows you from home to out-of-home, becomes a reality. Programmatic will play a crucial role in integrating this data to deliver targeted ads to the right audience in a way that was never seen possible.

Technology Enhancements to Programmatic

There are two technology advancements expected to enhance programmatic, which we would be remiss not to mention. First, machine learning has already found its way into programmatic through highly complex algorithms that connect ads with buyers more effectively than manual ad placement. A.I., however, will further improve upon ad effectiveness by predicting customer buying patterns and placing ads at the most relevant times and places, all without human input. A.I. will allow us to not only optimize ad spaces but also to measure and improve upon them in real time.

Secondly, blockchain, while still a nascent technology, can help reduce ad fraud by improving upon programmatic transparency and eliminating middlemen. These improvements and innovations in technology continue to strengthen the relevancy and veracity of ads, thereby improving consumer trust and safety.

In conclusion, programmatic is illuminating a bright future for advertising as it helps to mitigate two age-old issues: inefficiency and waste. As the retailer John Wanamker simply put it, “Half the money I spend on advertising is wasted; the trouble is I don’t know which half.” Programmatic is the first technology that can resolve these issues across the value chain by reducing waste by advertisers, reducing ineffective messaging for customers, and allowing publishers to monetize the attention that they generate. Overall, this improved efficiency and reduced waste results in a more relevant connection to the customer with higher customer satisfaction.
Key Takeaways

• Internationally, most regions are devoting a majority of their digital display ad spend to programmatic, led by the U.S. and Europe. As organizations’ control of data improves so will their reliance on programmatic.
  ° The U.S. is at the forefront of programmatic advertising. While Europe represents a large proportion of programmatic spend, the U.S. will likely be paving the way for the evolution of programmatic standards.

• While in-housing programmatic is on-trend, there is still a need for external support, either in an agency or tech partner.
  ° These findings demonstrate that brand need for external partners is not being eliminated. Rather, it may suggest the need for specialty expertise and operational support to scale personalization.
  ° Given the increase in data transparency and attribution that programmatic provides, this heightens the need for a strong analytics capability in particular. Brand organizations may turn to agency partners for this capability.

• While there is a desire for external support in some programmatic functions, organizations are more likely to keep third-party contract management and the strategic direction of their campaigns in-house. However, as the data suggests, this is not a hard and fast rule. In fact, organizations with multiple brands may choose to maintain control over some of their brands, while relinquishing control to a partner on others.

• Europe set the standard in privacy regulations with GDPR. While the impact has been mostly positive, it has been mitigated by the lack of clarity and a governance model. Europe will play a leading role in the evolution of these regulations, but other regions need to implement regulations that are tailored to their unique regulatory and economic environments. However, uncertainty in the future of regulations exists, and this illustrates the need for an international governing entity to monitor practices and enforce alignment to rules.
  ° Similarly, restrictions to the access of third-party data is inevitable. As a result, the organizations who build and manage a robust customer database will best adjust to new restrictions.

• The future of programmatic is rapidly changing with the proliferation of technological advances. Brands and external partners that embrace these new technologies and capabilities will be more successful in adapting to this ever-changing landscape.
  ° These advances also offer more opportunities for partners to specialize in emerging areas.

• Overall, the benefits of in-housing are many, with the biggest being the ability to drive better consumer experiences through increased connectivity and collaboration across marketing. This is particularly so where media is integrated in campaign development rather than treated as a stand-alone function. In-housing drives data integration and improves planning, thereby improving data transparency, ad efficiency, and campaign effectiveness.
As previously noted, agencies still play an important role in programmatic, even with organizations that in-house some programmatic functions. However, that agency role is shifting to more of a supporting role, which may suggest an opportunity for deeper specialization within agencies.

The COVID-19 pandemic has led to many changes in advertising overall. While some brands are limiting their short-term media spend, those same brands are also leaning more heavily on programmatic as consumers remain inside and online. The long-term impact is unclear, and this could result in an increase in programmatic as consumers are developing stronger online habits, like doing more shopping online.

This pandemic also illustrates the importance of a well-integrated programmatic team when it comes to quickly responding to unexpected events.

Whether in-housing or working with an agency, those teams that have clear and transparent processes can pivot and adapt more easily.