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MARKETING & AD TECH TRENDS 2019 ROUNDUP

May 2019

For the vast majority of marketers, there's no longer any question of whether they should have a tech stack. However, these solutions are constantly maturing and evolving to meet marketers' needs as vendors continue to innovate offerings, and marketing organizations better understand how technology can serve them. eMarketer has curated this Roundup of articles, insights and interviews to help you understand the latest trends in marketing and advertising technology.

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SPONSOR MESSAGE

Marketers know that personalization drives performance. But in an era where consumers are constantly switching devices and channels, personalized ads aren't enough. You must be able to use your digital marketing stack to cut through the noise and create hyper-relevant experiences at every touchpoint.

At Criteo, we have two big goals: build an Open Internet that allows everyone to compete on an even playing field and develop the next generation of AI-powered ads.

The Open Internet represents the channels, shopper data and companies that aren't part of a walled garden. It's what makes the internet great. We're sponsoring this Roundup because it represents the diversity of innovative tech tools across the digital ecosystem.

With advanced AI and data from 1.9 billion monthly active shoppers, **Criteo** is the ad platform for unleashing your data's potential—and we want to help fuel that ecosystem.

In a world where technology firms dominate the global economy, it makes sense that many companies want to pour money into tech projects.

In June, Deloitte and OnResearch surveyed 500 US executives from mid-market companies and found that a third of respondents spent more than 5% of their annual revenues on technology. Another 45% of respondents spent between 1% and 5% of their revenues on tech. More than half said they planned to spend more on tech this year than they did last year.

How Much Do US Mid-Market Companies Spend on Technology? June 2018
% of respondents

<1% of their annual revenue
11%

1%-5% of their annual revenue
45%

>5% of their annual revenue
33%

Do not currently have a separate identifiable tech spend
10%

Note: includes family-owned and other privately held companies; numbers may not add up to 100% due to rounding
Source: Deloitte, "Technology in the Mid-Market: Embracing Disruption," Aug 7, 2018

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This year will see continued efforts to transform digitally to meet customer needs.

Marketers are spending on tech, too. According to an April report by Forrester Research, US marketers will increase their investment in marketing technology by 27.1% over the next four years, spending more than $122 billion on marketing tech by 2022.

Ad tech investments have also been on the rise. While the investments are varied and range from funding rounds to acquisitions, ad tech firms like MediaMath, Integral Ad Science, AppNexus and Acxiom have each struck deals worth hundreds of millions of dollars, and in some cases billions.

On a smaller scale, an emerging category of ad tech vendors—customer data platforms (CDPs)—has gotten investors' attention. Since April 2018, at least seven CDPs have raised funding or been acquired by larger firms.

Marketing technology has become so central to marketing activities. The purpose of much of this technology is still to facilitate customer-data-driven marketing, and 2019 will see continued efforts to transform digitally to meet customer needs. This Roundup includes data, insights and interviews on how practitioners are looking to technology solutions to maximize ad effectiveness and more.

With spend on marketing technology increasing, many marketers are investing more dollars into data management products.

In December 2018, the Interactive Advertising Bureau (IAB) and Winterberry Group estimated that US marketers spent nearly $5 billion on data management and integration products in 2018, a 25% increase from 2017. Those marketers are investing in products such as customer relationship management (CRM) systems, data management platforms (DMPs), customer data platforms (CDPs) and identity resolutions.

As digital marketing becomes more automated and data-driven, it has become crucial for its practitioners to corral the data they rely on. For many marketers, this is a difficult task to accomplish.

According to an October 2018 Ascend2 survey of 145 marketers worldwide, 56% of respondents said that data management was difficult to implement. The respondents reported that data management was more difficult to implement than other marketing technologies like email marketing, paid search or marketing analytics.

Because data management is complicated, many marketers pay vendors to handle it. A 2017 survey by Adestra and Ascend2 found that 43% of US marketers said they outsource their data-driven marketing strategies. While the majority used a combination of outsourced and in-house resources, just 5% relied strictly on in-house resources to manage their data.

US Audience Data Activation Solutions Spending, by Type, 2017 & 2018
billions, % of total and % change

	2017		2018		
	Spending	% of total	Spending	% of total	% change
Data management, processing and integration	$3.97	64.3%	$4.97	68.7%	25.1%
Analytics, modeling and segmentation*	$2.20	35.7%	$2.26	31.3%	2.9%
Total	**$6.17**	**100.0%**	**$7.23**	**100.0%**	**17.2%**

*Note: *including measurement and attribution*
Source: Winterberry Group, "The State of Data 2018" in partnership with Interactive Advertising Bureau (IAB) Data Center of Excellence; eMarketer calculations, Dec 5, 2018

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56% of marketers worldwide said that data management was difficult to implement

DATA SCIENCE IS IN DEMAND AT AD AGENCIES

Data science and analytics will be the technical skills most needed at digital ad agencies worldwide in the next two years, according to a poll by Marketing Land.

As digital ad buying becomes more automated and data-driven, marketers need to improve their data skill sets. In a survey of US marketers by Blueshift and TechValidate, 54% of respondents said one of the main roadblocks preventing them from making better use of customer data was insufficient data analysis capabilities. And an Adestra and Ascend2 poll found that 43% of US marketers outsource their data management.

Over the past five years, 67% of marketers have significantly increased their focus on data and analysis, according to research by YouAppi and Dimensional Research. However, competition for talent is still the second-leading challenge facing agencies, according to Marketing Land's poll. (Clients moving services in-house was cited as the top challenge.)

These studies indicate that marketers' demand for greater data analysis capabilities is outpacing the supply of talent that can address those concerns.

"The advances in marketing technology, including techniques like machine learning, don't mean marketers can just collect data and have a computer tell them what media to buy and how," said eMarketer principal analyst Nicole Perrin. "Data scientists play a big role in setting data-driven strategies, and we've heard for a while that big, rich tech companies have snapped up a lot of the top talent.

Which Technical Skills Do Digital Agencies Worldwide Think Will Be Most Needed Two Years from Now?
% of respondents, Dec 2018

Data science & analysis
72.0%

Conversion rate optimization
59.3%

Computer science/AI
51.9%

Technical SEO
51.9%

Campaign management
39.5%

Ease with martech/ad tech tools
37.0%

Video production
36.6%

Programming
31.3%

Web and/or app development
30.9%

Graphic design
22.2%

Other
5.8%

Note: n=243
Source: Marketing Land, "Digital Agency Survey," Jan 30, 2019
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"But as advanced attribution techniques become more common, roles throughout the marketing department will require competence in understanding and manipulating data. Digital strategists should be educating themselves and their teams and becoming conversant in the types of data they collect and the models that data informs."

Aside from talent issues, a few other challenges prevent marketers from investing more in data science. Nearly half of the US brand advertisers and agencies surveyed by Advertiser Perceptions and MiQ said that investing in data science is cost-prohibitive. And a Burtch Works study found that mid-level data scientists have a median salary of about $130,000.

A similar number of respondents reported that a lack of accurate measures of business impacts restricts their data science investments.

Although there are various challenges that marketers associate with building data science teams, marketers have not cooled on the topic. In the study by Advertiser Perceptions and MiQ, 96% of US respondents said that data science was important for marketers.

How Have Companies Worldwide Changed Their Focus on Data, Metrics and Analysis Over the Past 5 Years?
% of respondents, agency vs. in-house, Jan 2019

Agency

68%	29%	3%

In-house

67%	32%	1%

Total

67%	31%	2%

■ **Increased dramatically** ■ **Increased somewhat** ■ **No change**

Note: n=543 marketers with responsibility for brand and/or performance marketing; no respondents selected the "decrease" option
Source: YouAppi survey conducted by Dimensional Research, Feb 13, 2019

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As advanced attribution techniques become more common, roles throughout the marketing department will require competence in understanding and manipulating data.

FEWER THAN 10% OF US MARKETERS THINK THEIR COMPANY'S ATTRIBUTION KNOWLEDGE IS EXCELLENT

Companies may know that more advanced attribution practices are needed to prove marketing value in today's complex media world, but that doesn't mean they understand, or easily embrace, these practices.

Only 9.1% of US marketers polled by digital marketing news company ClickZ and attribution firm Fospha rated their company's current understanding of data-driven attribution as excellent. Nearly 12% said it was very poor, while an even higher percentage (22.7%) said it was below average.

Marketers want a better understanding of how their ad dollars are being spent, but simple models like last-click attribution—which credits a purchase or conversion to the last ad a customer clicks—hinder marketers' analytic capabilities. That's why some are turning to tactics such as multichannel attribution, which assigns marketing credit to more than one touchpoint or channel.

We forecast that 58% of US companies will use multichannel attribution for their digital marketing efforts in 2019, up from 49% in 2017. But even though marketers are shifting to more advanced attribution practices, that doesn't mean all the companies adopting new attribution models understand them.

How Would US Marketing Professionals Rate Their Company's Current Understanding of Data-Driven Attribution*?
% of respondents, Sep 2018

Pie chart data:
- Very poor 11.7%
- Excellent 9.1%
- Good 29.2%
- Neutral 27.3%
- Below average 22.7%
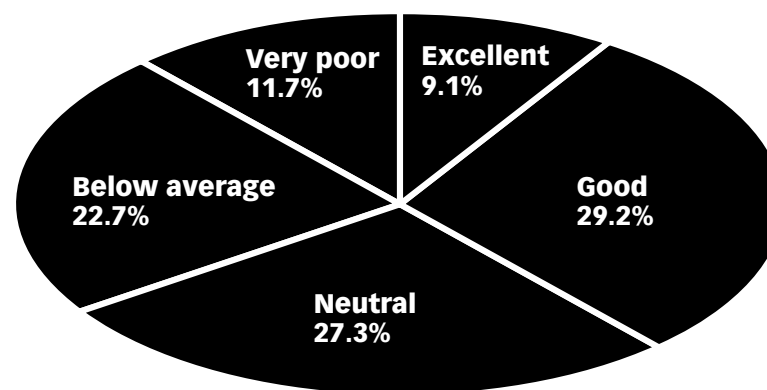
*Note: agency and client-side respondents; *Fospha's algorithmic approach which utilizes machine-learning to calculate the fractional credit of each interaction*
Source: ClickZ, "The State of Marketing Measurement, Attribution & Data Management" in partnership with Fospha, Dec 13, 2018

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As part of our attribution report series, Mike Bregman, senior vice president of data, analytics and technology at ad agency 360i, spoke with eMarketer about the building blocks required for marketers who want to advance their attribution game.

Lots of marketers are trying to revamp their attribution efforts. Have you seen any advertisers that have mastered it?

No one's doing it 100%. There is no perfect solution for attribution, but there are some major components to it.

"No one's doing [attribution] 100%."

What are those components?

One is what the organization is trying to get out of it. What are the goals that they're trying to reach? How closely do the ecommerce metrics that they're optimizing align to their business key performance indicators?

From there, it becomes a data-discovery and consulting exercise. How clean is the overall data? How organized are their naming conventions? What sort of partner does the agency work with? How does the agency actually end up using it? What specific value will it have for clients?

What else should marketers consider as they shift to more advanced attribution models?

There are a lot of foundational things marketers should be doing first, like A/B testing, placebo testing, thinking about digital reporting in general and then getting value out of that. Have they thought about marketing mix modeling? How good have their historical analyses been and their overall understanding of data and data infrastructure?

Can you give me an example of when it makes sense for a marketer to not adopt multitouch attribution?

If you are trying to grow the business, you should begin with a top-down methodology. From there, you should think about content optimization and how much to invest channel-by-channel. On any two of those channels, you should optimize as much as you can. Once you've squeezed all the juice there, then you should think about multitouch attribution as the most data-heavy, granular and tactical analysis for ecommerce.

To address business goals and needs, marketing mix modeling is usually a more powerful tool. It's gotten a bad rep, but it has a lot of momentum and is widely used.

MARKETERS WILL CONTINUE TO ADOPT CDPS AND FOCUS ON WRANGLING CUSTOMER DATA

Customer data platforms (CDPs) have been up-and-comers in the marketing tech world for the past couple years, as organizations have begun to get serious about data-driven marketing and moved toward building a single, 360-degree view of their customers.

According to The Relevancy Group, half of US marketers had a CDP vendor in place as of mid-2018, and another third said they would in the next year. CDPs underlie that 360-degree view by housing all of a company's first-party data about customers and prospects. And they are also becoming more mature, with specialized options for various verticals and use cases.

Data integration is still very much a work in progress, even if CDPs have gained a strong foothold in marketing tech stacks relatively quickly. For example, among business-to-business (B2B) marketers worldwide surveyed by Dun & Bradstreet in September 2018, almost half said they used a CDP—but most of that group said they were using only basic functions in the platforms. Similarly, most of the marketers who told The Relevancy Group they had a CDP vendor also said they weren't integrating any digital advertising or email marketing data into their CDP. More than half of marketers surveyed in January 2018 by DemandLab about data integration across marketing technologies said they were "acting on it"—but almost as many were merely "talking about it."

A top obstacle is failing to connect data across systems in order to create a single customer view.

And while CDPs typically focus on first-party data about customers, there's also external data to integrate into the overall tech stack—and just 11% of marketers worldwide surveyed in mid-2018 by IBM and CMO Council said they had fully integrated external data into their systems and platforms.

Respondents to that survey also noted obstacles to getting more value from their internal data, and topping the list was the failure to connect data across systems in order to create a single customer view. More than half of marketers named this as an obstacle, followed closely by inaccessible data getting trapped in touchpoints and platforms. Marketers will continue to work throughout 2019 to unlock more of this data and create a holistic view of the customer journey across channels.

Customer data platforms are the hot thing in marketing tech right now, but many of their functions are not that novel.

CDPs are similar to other types of data storage vendors such as data management platforms (DMPs), which are used to manage advertisers' and publishers' audience data. Vendors who sell CDPs claim that their differentiation comes from dealing exclusively with first-party data and having use cases that extend beyond media and advertising.

In a June 2018 survey by The Relevancy Group of 204 US executive marketers who are currently using a CDP vendor, about six in 10 respondents said they integrate customer relationship management (CRM) data into their CDP. Other types of data like offline spending, email marketing and mobile behaviors were also integrated into CDPs but not at as high of a rate as CRM data.

These results underscore how CDPs' most common functionalities have been around for several years. CDPs store more types of data than DMPs and CRM platforms, but there is a fair amount of overlap.

According to the Customer Data Platform Institute, the number of CDPs doubled from 2017 to 2018, and there are now more than 50 CDPs in MarTech Today's industry landscape. Part of the reason so many vendors are rushing to sell CDPs is because the General Data Protection Regulation (GDPR)—an EU rule

that became enforceable in May 2018 and stipulates that people's data can only be used if they give a company explicit permission—is driving the demand for first-party data products. Since April, at least seven CDP providers have struck deals with investors.

What Systems/Data Sources Have US B2B vs. B2C Senior Marketers Integrated into Their Customer Data Platform (CDP)?
% of respondents, June 2018

	B2C	B2B
CRM data	64%	61%
Customer profiles, demographics	61%	58%
Customer online spending	54%	48%
Customer service/support information	48%	48%
Website behavior	39%	41%
Email marketing response data	33%	35%
Digital advertising response data	29%	29%
Customer offline spending	22%	25%
Mobile behaviors, including app utilization	22%	23%
Previous marketing offers	21%	21%

Note: n=204 whose company currently has a CDP vendor
Source: The Relevancy Group, "The Relevancy Ring - CDP Buyer's Guide 2018," Aug 14, 2018

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Marketers want to follow customers in real time, but outdated technology often stands in their way.

In a July survey of 560 marketing professionals worldwide conducted by Harvard Business Review Analytic Services, 36% of respondents said that legacy systems were one of the biggest roadblocks preventing them from implementing real-time analytics. A third of respondents reported that data silos also stifled their progress. The results indicate that old technologies and organizational structures make life more difficult for marketers who want to utilize user data in novel ways.

Although the marketing tech landscape is perpetually changing, marketers aren't typically too aggressive about adjusting their technology setup. In a Walker Sands Communications survey conducted in Q1 2018, 53% of US marketers said they adjust their tech stacks once or twice per year. One in 10 said they never implement new marketing tech products.

Marketers who rely on programmatic ad buying may have to update their technology sooner rather than later. In July 2018, the Interactive Advertising Bureau (IAB) Tech Lab released its OpenRTB 3.0 spec for public comment. The spec is intended to overhaul the underlying technologies that empower programmatic ad exchanges.
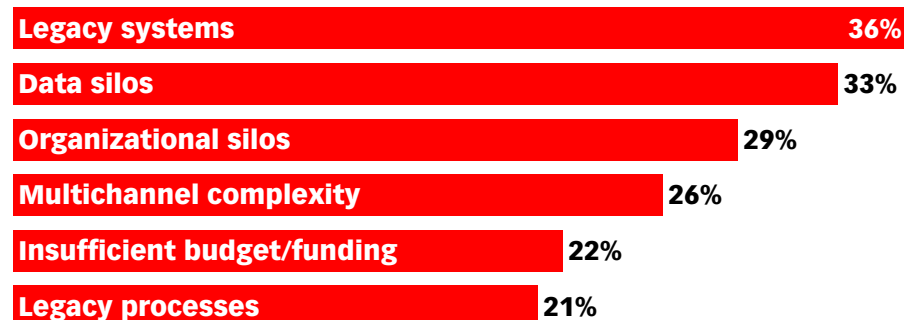
OpenRTB 3.0 is not backward compatible, which means that ad buying and ad targeting platforms will have to rewrite their code if they wish to comply with the new standard. The spec's timeline isn't officially set, but OpenRTB 3.0 could go into effect in 2019.

Another common obstacle preventing innovation in marketing is data silos. Marketers are making some progress on this front, however.

In May 2018 polling from Centro and Forrester Consulting, just 17% of US digital media buyers said their direct and programmatic sales teams have fully converged. But three-fourths said they're starting to unify them.

Real-Time Customer Analytics Challenges According to Marketers Worldwide, March 2018
% of respondents

Legacy systems	36%
Data silos	33%
Organizational silos	29%
Multichannel complexity	26%
Insufficient budget/funding	22%
Legacy processes	21%

Source: Harvard Business Review Analytic Services, "Real-Time Analytics: The Key to Unlocking Customer Insights & Driving the Customer Experience" in conjunction with SAS, Intel and Accenture Applied Intelligence, July 8, 2018

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This post was contributed and sponsored by Criteo.

Good news—people don't hate all online ads. They just really hate the bad ones. So what's the difference between ads that consumers dislike and the ones they actually want to see? Relevance.

The Good

On the positive side, people say they like online ads that can:

- Offer discounts for products (52%)
- Help me discover new products (48%)
- Remind me of products I'm interested in (37%)

The Bad

People dislike when online ads:

- Slow down the browsing experience (49%)
- Show products I'm not interested in (46%)
- Are very intrusive (42%)

The Ugly

- 8% said they think digital ads are too colorful and cheerful for today's world. (Ouch!)

Our research shows that consumers are very open to engaging with ads—as long as they're relevant.

How to create relevant ads

Relevance is driven by data. Data helps connect the dots between everywhere consumers go, from desktop to mobile web, in-app, in-store and social media, and everything they research, show interest in and eventually purchase.

Like many marketers today, you want to use your data to its fullest potential. Now that marketers have access to artificial intelligence through ad tech platforms, you can.

The more data that can be processed with AI, the better it can help you understand users at the individual level. It's becoming possible for every marketer to serve hyper-relevant ads for true 1:1 marketing.

Hyper-relevance is different than personalization. Personalized ads help consumers discover the products they want to buy next. Hyper-relevant ads take it a step further—they show the products that are most relevant at that moment. And they have the right creative, the right format, and they're on the right channel.

Why context matters

Today's customer journeys are no longer linear. People work their way toward the products they want to buy at different speeds, in different channels and at all hours of the day, 365 days a year, for years and years over the course of a lifetime.

To really grow your business with advertising, you have to think about the full-funnel journey. Whether you're trying to drive upper-funnel goals like awareness and consideration, or lower-funnel conversions, it's important to deliver the right kind of ad at the right stage. It's all about context.

Today's dynamic creative capabilities mean that all consumers should be able to see ads with products, messaging and creative that's customized to them. When you use data from every consumer touchpoint, you get a clear picture of what compels an individual to buy something and you show them better, more effective ads.

Personalization is so 2018

Welcome to the Age of Hyper-Relevance

Build a better ad experience that drives performance with:

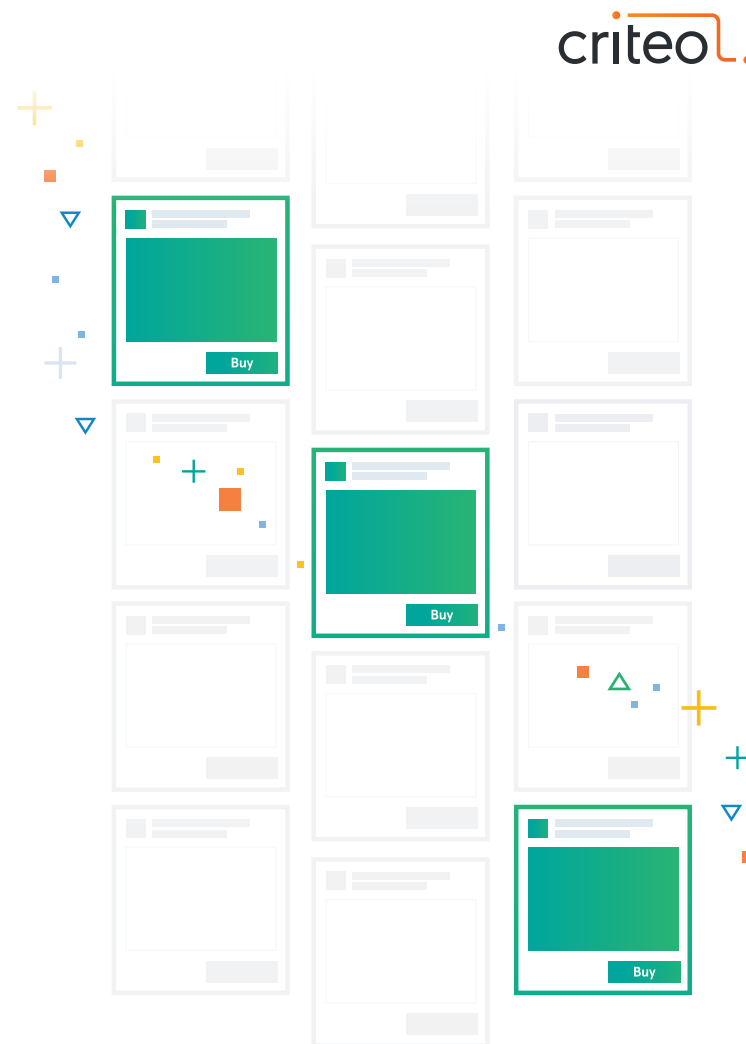### The world's largest open commerce data set
Data from 1.9 million monthly active shoppers

Powerful artificial intelligence
Our algorithms go through 30,000 tests a year

Hyper-relevant advertising at scale
The right ads at the right moment in the shopper journey

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HOW ALDO APPROACHES MARTECH INVESTMENTS

These days, CMOs are expected to be not only marketing gurus, but also technology enthusiasts. In an August 2018 survey from Forrester Consulting and Accenture Interactive, 26% of marketers worldwide said that, when it comes to innovation over the next 12 months, one of the key elements of the CMO role will be driving a new technology strategy.

But having a technology strategy in place is not enough. It needs to be integrated with the rest of the enterprise's ecosystem. To do this, marketers must collaborate with the IT team. For our upcoming report "Canada Martech 2019," we spoke with Grégoire Baret, general manager of omnichannel experience at shoe retailer Aldo, about what that looks like.

eMarketer: What's your first step in rolling out a new technology?

Baret: Everything starts with a co-creative session to hear everyone's advice and define what the key elements we want to follow are. The meeting could include people from IT to sales to development. The goal is to get an extensive overview of things we need to consider—whether it's related to business or technology.

eMarketer: What is IT's role during these meetings?

Baret: They're mostly focused on the security of the core enterprise and data management—and making sure that, no matter what we're doing, it's compliant and respectful of the rules. They also ensure the overall architecture is simple enough that we can maintain and evolve it, and that it's secure enough

that there's no risk of a data breach. Payment management and fulfillment systems are also left to them.

"We're always tracking with IT and making sure that our direction is fitting well within the enterprise structure."

Grégoire Baret,
General Manager of Omnichannel Experience, Aldo

eMarketer: Where does marketing come in?

Baret: My team is driving the ongoing development and technology approach, and we deal with anything related to the front-end experience, including the front-end layers of the web services and marketing penetration index [MPI]. We're always tracking with IT and making sure that our direction is fitting well within the enterprise structure.

eMarketer: You mentioned the need to respect the rules. Does that mean you're factoring privacy and GDPR into the process?

Baret: We look at the local need for compliance and the overall benefit to the customer's experience. It's an interesting collaboration, because it has to align with IT in the data management and security aspect, but it also has to give consumers an easy way to access or modify their data.

RYAN FAGAN

Director, Sales, Operations Planning
Lowe's

Brand marketers often utilize gated offers to make discounts available to targeted audiences. Ryan Fagan, director of sales and operations planning at Lowe's, spoke with eMarketer's Ross Benes about how the home-improvement brand overhauled the way it verifies which customers are eligible for discounts.

eMarketer: How have you changed your approach to audience verification?

Ryan Fagan: We were asking the cashier at that brick-and-mortar store to be judge, jury and executioner of reviewing people's identifications and then honoring a discount or not. But sometimes customers would forget their ID, and we'd run into an awkward situation of someone who is deserving of a discount and had gotten it in the past not able to receive it at that time, and that led to an inconsistent experience.

So we went live with SheerID in May 2017 to create a gate around the financial benefits for the target audience we were looking for. And we tied the verification into our loyalty program

eMarketer: How does it work?

Ryan Fagan: We're able to append a customer's records so that you only have to verify one time with us. So we made it an easier journey for the customer, and they can get our benefits across all channels. So if you sign in at a store, you will receive a discount. If you sign in online, you can also get a discount.

Before, some of our store managers would apply the corporate policy for discounts, while other stores would apply their own rules. You had these multiple experiences where one store would give you a discount one day, but the next store manager might say no. Now we can offer the benefits with a frequency that the customers expect.

eMarketer: What sort of data did your vendor have to process when verifying customers?

Ryan Fagan: One example is we've given discounts to military members. To sign up for discounts, the customer will give us information such as date of birth, branch of service and date of honorable discharge.

There's a purge system on [SheerID's] side and ours, so we're not maintaining any personally identifiable information (PII). All we maintain on the back end is if you came back with a positive verification.

eMarketer: Why did you make sure you purged PII?

Ryan Fagan: If you think about all of the data leaks in the marketplace, we definitely wanted the consumer group to feel confident in the data security.

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