AdTech and MarTech

A Guide for the Modern IT Pro
# Table of Contents

AdTech and MarTech: A Guide for the Modern IT Pro 3

AdTech Terms 4

The AdTech Stack - Infographic 14

MarTech Terms 15

The MarTech Stack - Infographic 25

Combined AdTech & MarTech Terms 26

Bridging The AdTech & MarTech Divide - Infographic 35

Index 36
IT has always had a mission to support the technology infrastructure that companies build, buy and deploy to support their marketing. But with technology capturing an ever greater share of the marketing spend — and with the growing merger of advertising technology (AdTech) and marketing technology (MarTech) — the role of IT in marketing is more crucial than ever.

The next wave of digital transformation is all about experience. Becoming an Experience Business means leveraging a single view of customers and providing a truly integrated journey across all owned, earned and paid channels. The wealth of advertising and marketing data available enables brands to acquire new customers and retain their loyalty through personalized and relevant engagements.

This level of customer experience across every touch-point can only be achieved when AdTech and MarTech work synchronously and in close collaboration with the overall IT strategy of the business. Adobe understands this. That is why the Adobe Experience Cloud provides a comprehensive set of services to bridge the divide, enable digital transformation, and differentiate on the basis of experience.

Organizations differ in the way they involve their IT team in the path to digital transformation. Some engage IT early on at the strategy table, giving them a strong voice in plans to digitally transform. Some leverage IT at the level of compliance, relying on them to ensure that technology solutions will address the organization’s security and governance needs and work with the broader tech stack. And some fall in the middle, with IT playing a key role in evaluation and implementation, but still feeling a desire to contribute in more strategic ways.

This guide was created for IT teams in these organizations—and other IT professionals looking to make ever-greater contributions to the process of digital transformation. For these teams, understanding the AdTech and Martech landscape, speaking a common language with their business counterparts, and deeply understanding implications for the discipline of IT are critical first steps.
AdTech Terms
Ad Blocker

An ad blocker is software that users can download to remove advertising from their online experience across both desktop and mobile devices. These programs filter out pop-ups, banner ads and other common forms of online advertisements, allowing a user to surf the Web without being exposed to brand messages. The overwhelming majority of ad blockers that exist are concentrated in emerging markets and are most commonly used by consumers to manage scarce internet bandwidth.

Ad Fraud

A form of criminal activity where impressions, clicks and user behaviors are falsely mimicked and charged to advertisers in order to generate inflated revenue. There are numerous types of ad fraud — from click farms and ad stacking, to sophisticated networks that artificially inflate traffic to web sites. It’s important to use technological defenses available in media-buying platforms to mitigate fraud and ensure every advertising dollar counts.

IT Implications

Companies need to consider if the selected ad fraud mitigation solution is hosted externally or on-site, and should ask their technology provider to ensure that advertising blacklists are continuously updated. The IT team should be informed of any unexpected rises in web traffic in order to run accurate assessments of invalid or fraudulent traffic. A fraud detection program can eliminate or drastically reduce fraud levels before a Demand-Side Platform (DSP) bids for digital advertising impressions. The market is moving to offer pre-bid solutions that aim to reduce all forms of sophisticated invalid traffic (IVT).
Ad Exchange

An ad exchange is a marketplace that enables the buying and selling of digital advertising spots in an automated fashion. The exchange is run via a real-time auction, where publishers make advertising space available for advertisers to bid on. The dynamics of supply and demand determine the price of an ad – normally on a cost per one thousand impressions (CPM) basis. Almost all forms of digital advertising can now be bought and sold on exchanges including display, video and native across desktop and mobile devices. Marketplace participants include demand-side platforms (see DSP) and supply-side platforms (see SSP).

Ad Network

An ad network is a company that aggregates digital advertising spots from multiple publishers and ad exchanges to package and sell to brands and agencies. This is normally either in the form of an audience buy (e.g. Females 18-35), a category buy (e.g. sports sites), a run of site buy (across one publisher site), or across a network of sites. The ad network model was adopted as the main buying mechanism in the early days of digital advertising as it allowed media buyers to secure inventory across hundreds of websites, but there were challenges with the lack of transparency. Most agencies and brands now bypass ad networks, as they can access pools of inventory by licensing demand-side platforms to plug into ad exchanges.

Ad Server

A web-based system where an advertiser’s creative assets are stored and then delivered to advertising spots on a website in milliseconds, once an impression is bought. Ad serving can be performed by the publisher, if a direct buy has been done, or facilitated through third-party ad-serving vendors. In the latter case, an ad tag or piece of code is generated by the ad server and loaded into a buying platform (see DSP).

A primary function of an ad server is to verify delivery of a digital campaign. It also provides ad management (particularly useful when there are multiple creative assets and/or versions), campaign tracking and top-line performance reporting. An ad server can help provide comparable metrics if multiple buy-side platforms and publishers are used.
IT Implications

The IT department should ensure the ad server is able to integrate smoothly with multiple AdTech vendors, and that the tag management and campaign tracking process runs efficiently. The ad server is the brand advertiser’s trusted source of truth. A standardized reporting process and cadence should be implemented, and data should flow freely into the reporting stack to ensure digital campaigns can be measured and attributed accurately.

Agency Trading Desk

An Agency Trading Desk is a team within an agency that is responsible for executing programmatic media buying as a managed service. It typically licenses and white labels demand-side platforms to purchase and optimize media campaigns on ad exchanges, ad networks and other inventory sources. Increasingly agency trading desks also use technology partners for additional services such as verification, creation and delivery of rich media, dynamic creative optimization and audience measurement.

Black List

A Black List identifies a list of websites that an advertiser blocks their campaign from running across. Most demand-side platforms have inbuilt black lists, which are dynamically updated based on specific flags around quality and type of content. Advertisers and agencies can also curate their own list and load it into a DSP.
Brand Safety ensures that an advertiser’s creative does not appear alongside objectionable content or anything that might impact the brand negatively, resulting in unsafe, off-brand or wasted advertising opportunities. Obvious examples include nudity, extremism and bad language. However, it also extends to situations where there might be legislative restrictions, such as fast food brands not advertising to children and alcohol labels not advertising to underage consumers. Most demand-side platforms have built-in defenses, but it is critical that advertisers and agencies customize brand safety thresholds and use appropriate technology to safeguard against failure.

IT Implications

The rise in objectionable content across the Internet has fueled a spate of solutions that go beyond keyword targeting and site blacklisting. Technology vendors now provide contextual targeting software and semantic selection of acceptable web site ad impressions. Customers should ask vendors about their process for understanding the content of a web page, if they can implement brand safety for video ad placements, and if their technology works for mobile web and app-based advertising.

The IT department needs to know to what extent the brand safety solution can be scaled effectively across all target web and app impressions. Most brand safety vendors offer their solution as part of a programmatic media buying platform, so IT needs to have visibility into the whole vendor solution, including inventory quality management.
The technology to protect brands has existed for many years, but it hasn't been used consistently and this is an area where IT can add real value. The IT department also needs to work with marketing to ensure there is an independent review of the brand safety program. Similar to ad fraud management, IT managers should also be tasked with assessing quality pre-bid solutions that filter out bad web sites or risky ad placements.

**Demand-Side Platform (DSP)**

Software that enables buyers — brands, agencies and ad networks — to purchase advertising spots from ad exchanges and publishers. The role of a DSP is to assess all available inventory, layer in a buyer's requirements around audience targeting, price and campaign objective, and purchase advertising spots that meet these criteria at the most cost-efficient rate. A DSP can then measure and optimize a campaign in real time. It’s important to understand if a DSP partner owns media or also functions as a Supply-Side Platform (SSP), as this can mean it is partial to delivering campaigns across certain web sites from which it benefits, rather than focusing on achieving the objectives of the advertiser.

**IT Implications**

The key analysis work for the IT department should be to focus on the ease of set-up, and the quality of the DSP’s bidding engine and media optimization software. Pure-play DSP providers only focus on the demand side of programmatic advertising, and companies that also act on the supply side may not be acting in the true interests of the advertiser. Marketing and IT departments should work together in evaluating DSP solutions to ensure they meet both functional and technical requirements. The evaluation should include questions around the solution's audience segmentation/attribution capabilities and the vendor’s ability to provide local tech support. IT should also investigate how easily the DSP solution will integrate with other components of the ad campaign stack, including seamless integration with internal or vendor-side Data Management Platforms (DMPs).
Direct Response Advertising

Direct Response Advertising, sometimes referred to as Performance Advertising, is action-oriented and aimed at driving an immediate response from the audience like a click, website sign up or sale. Normally an advertiser only pays when the result is achieved (eg. cost per click, cost per lead or cost per acquisition). Direct response creative generally features a call to action, promotion or special offer and is a popular application of AdTech, where automation and algorithms help drive the most efficient outcome.

Private Marketplace (PMP)

A Private Marketplace is a means of facilitating an automated media buy across a publisher or group of select publishers. The transaction is within a real-time auction environment (see RTB), but the terms of the deal are pre-negotiated between the buyer and seller (eg. rate, type of inventory, audience). This allows advertisers and agencies to curate a marketplace based on their requirements. Similarly, publishers can control which advertisers appear on their website.

Programmatic Buying Unit (PBU)

A Programmatic Buying Unit (sometimes referred to as a Programmatic Business Unit or Private Trading Desk) is a team within an agency or brand responsible for managing the media buying, optimization and reporting for a specific client. PBUs license and use demand-side platforms (see DSP) and are the result of the growing need to decentralize agency trading desks. Programmatic experts are embedded in existing client teams or a trading team is created specifically for a certain client (depending on overall advertising budget).

Retargeting

Sometimes referred to as re-marketing, this is a strategy to re-engage a user based on their prior digital experience or behavior — for example, their activity on a brand’s web site or previous exposure to an ad. An advertiser might want to re-target a shopping cart abandoner with creative featuring a special offer to entice them back to purchase, or re-target somebody exposed to a video ad with
display creative for sequential storytelling. The advertiser pre-determines the user events it would like to re-target by embedding some code on its website or advertising, which drops a cookie in the user’s browser. When this cookie is next identified by the Demand-Side Platform (DSP) the user is served the follow-up creative.

**IT Implications**

Re-targeting can annoy consumers if not executed properly, and brands must charge their technology experts with looking at the re-targeting provider’s expertise in frequency capping, audience segmentation, and demographic, geographic and contextual targeting. The IT department should also ensure re-targeting software can be integrated with the rest of the AdTech stack, including the ad server, DSP, and DMP. Because re-targeting relies on cookies, your evaluation should ensure the vendor has a comprehensive solution that enables tracking across devices. Once implemented, the IT team should monitor the data to ensure the re-targeting program is consistent, relevant, and that wasted re-marketing is not occurring.

**Real-Time Bidding (RTB)**

Real-time Bidding is the automated trading of digital advertising spots using technology platforms. This normally takes place in an ad exchange, where demand-side platforms and supply-side platforms participate in auctions. Millions of advertising spots (or impressions) can be transacted in seconds and if the advertiser’s bid wins, their creative is instantly loaded on the publisher’s site.

**Search Engine Marketing (SEM)**

Search Engine Marketing is the broad term applied to strategies that are designed to position a brand’s website higher within paid or organic results, when a user enters a query (a word or sentence) into a search engine. The ultimate goal is to drive traffic to a brand’s website by increasing visibility on the search results page. This can be done through the purchase of key words (paid search) or the optimization of websites (organic search).
Supply-Side Platform (SSP)

Software used by publishers to sell advertising spots across their websites in an automated fashion. The SSP connects to ad exchanges and makes the publisher’s inventory available for Demand-Side Platforms (DSPs) to bid on. Publishers use SSPs to manage their yield and access a range of potential buyers. The goal of an SSP is to get the highest price possible for the publisher, which enters a minimum rate it is willing to accept. This differs from a DSP, which focuses on getting the lowest price possible for an advertiser. An SSP can be dedicated to only one type of advertising, such as mobile, or it might provide access to a wide variety of formats.

IT Implications

IT should help marketers select an SSP that provides flexibility — including the ability to offer video ads, banners, native ads, interstitials and other ad formats that meet your needs. The SSP must have access to real-time data that can be used for yield optimization and can enable smart algorithms that drive your campaign. An SSP should also provide a single platform that manages multiple ad networks and inventory sources. Similar to DSPs, SSPs also provide tools to protect brands from low-quality, unsavory, or malicious ads, and their ability to screen media inventory should also be assessed.

It would be wise for the IT operations team to engage in a direct relationship that enables you to assess the performance of your SSP, and track conversion, attribution, and advertising viewability data. The ability of the SSP to provide third-party technology provider integration, easy reporting systems, and strong integrations with demand-side partners, are critical questions for the IT department to assess.

Viewability

Viewability is a metric for measuring whether a purchased digital ad has the opportunity to be seen by a human within a recognized timeframe. The concept became popular in 2014 when it was discovered that a portion of the digital advertising that brands were paying for, was being delivered in areas of a website page that never made it into view. The IAB has ratified the definition of viewability handed down by the Media Rating Council (MRC): 50% of the ad in view for one second for display and 50% of
the ad in view for two consecutive seconds for video. It is important to note that user behavior plays a significant role – if a user tabs away or scrolls past an ad quickly, the viewability is impacted.

Hence there is no way to know before an ad is served if it will be viewable or not, and a 100% viewability rate is actually impossible. Some vendors will give advertisers the option to only pay for viewable ads. As with all performance pricing, these vendors deliver significantly more impressions than advertisers have contracted and only charge for the viewable ones. Viewability can be optimized and should increase over the course of a campaign with factors such as ad placement, player size, and the quality of the creative all increasing the viewability rate.

**White List**

A White List is a curated list of websites that a digital campaign is approved to run on. As with a black list, advertisers and agencies can customize their own white list. This is one strategy to mitigate brand safety risks, however, white lists are becoming less relevant as technology to block questionable content in real-time improves. This is because the content on websites is constantly updating, so it is important to implement dynamic technology defenses available in demand-side platforms (see DSP).
The AdTech Stack

Audience

Advertising Budget

Media Agency

Trading Desk

PBU

Ad Network

Ad Server

Ad Server

Demand-Side Platform

Ad Exchange

Supply-Side Platform

Open Market Place

Private Market Place

Real Time Bidding

Data Management Platform

Targeting

Viewability

Brand Safety
MarTech Terms
Analytics in the context of MarTech refers to the data captured from a brand’s owned and operated properties. Analytics tools enable brands to understand how their digital destinations are performing and the way audiences are engaging with them. Web analytics provides information such as the total number of visitors to a web page, performance of specific pages and e-commerce data. The field of mobile analytics includes mobile web and app data, such as interaction with features, navigation and monetization statistics. Both areas include a vast suite of tools and metrics that provide a detailed picture of overall audience and customer engagement.

Content Management System (CMS)

A platform used to create, store and manage digital assets. The platform provides multiple users with access to brand-approved content, such as business information and images used in the course of everyday marketing operations. Different permission levels can be set up, enabling users to edit, distribute, publish or simply discover content. It includes systems that facilitate collaborative authoring of a web site or app, as well as management of documents and digital assets for version control. Re-engaging customers who left products in shopping carts, highlighting new products based on past site usage and purchases, and adding geographically relevant messages to the right audience are all part and parcel of what a CMS should provide. The key functions of a CMS can overlap with those of a Data-Management Platform (DMP) and they can work effectively together.

IT Implications

A CMS is not an add-on to your existing site. It is built into the core of a business’s own websites. It should manage every image, line of text, or video that loads, and run the layout of the pages. It should allow for audience segment data — gleaned from the ad server, the DMP, and re-targeting tags — to be collected and inform future digital marketing or advertising activity. The CMS is the lifeblood of a company’s operations, and IT departments have a major say in the creation and implementation of these systems. The technology operations team should provide guidance on how to turn the entire site into a customizable and dynamic website that is empowered with data and tags to provide visitors with the best possible experience.
Content Syndication

Content Syndication is the practice of distributing content on relevant 3rd-party websites to provide increased reach and visibility - beyond a brand’s owned and operated website. Syndicated content can be a complete copy of something published on a brand’s own website or a smaller section of it (such as a snippet or even thumbnail). The aim of content syndication is to align with digital properties that are relevant to a brand’s product or service, in order to access interested and sought-after audiences. It is generally considered a top of the funnel marketing activity, designed to build awareness and put a brand in the consideration set of a customer when they are ready to purchase.

Customer Experience (CX)

All of the interactions that someone has with a brand throughout the consumer life cycle. These include both offline and online touch-points, from in-store promotions to the functionality in a brand’s mobile app. CX typically refers to the delivery of a customer’s digital experience and takes into account content, design and usability of things like the website, mobile app, e-commerce platform, etc. Good CX will help brands not only meet their customers’ needs and expectations, but exceed them.

IT Implications

Improving customer experiences is often a key driver of a business’s digital transformation goals, and IT is critical to this effort. That is because the IT department has a broad horizontal view across the organization, historical perspective about how tech has been deployed, and expertise in data governance, security, and other digital transformation imperatives.

The advertising and branding experience is closely linked to the customer’s experience with a brand’s digital assets as it impacts purchase decisions and brand loyalty. Cross-functional teams within an organization should be provided with tools that help them to identify patterns in engagement with all marketing and advertising channels—as this will create great prospect experiences, which are the precursor to great customer experiences. Linking these disparate tools falls under IT’s domain expertise.
Customer Relationship Management (CRM)

A Customer Relationship Management platform is the central repository of the information a company has on its customer contact base. The use of a CRM platform is generally more common in business-to-business (B2B) than business to consumer (B2C) marketing. The CRM enables businesses to track, manage and analyze interactions throughout the customer lifecycle. A variety of information sources can feed into a CRM platform, including data sourced from engagement on a company’s website, a live chat and sign-up data.

Data Visualisation Platform

A Data Visualization Platform is software that helps marketers bring together the multitude of data outputs from different systems (e.g., advertising performance, website analytics and offline sales stats) and analyze them into graphical representations that demonstrate patterns, trends and correlations. Most data visualization platforms will easily connect to common MarTech systems through an API (see bridging terms). They also enable businesses to customize dashboards using language that aligns with their internal terminology, making data-driven insights more accessible and relevant.

Digital Asset Management (DAM)

Digital Asset Management platforms are used by enterprises to organize, store and share content for business use. This commonly includes images, photos, creative files, audio, video, documents, presentations and more. It is an essential tool for ensuring version control and compliance with brand and regulatory guidelines, particularly when multiple stakeholders are working on projects. DAM software has evolved to support creative approvals and serve as a centralized hub for content distribution across channels including social platforms, the website and other media.
e-Commerce Platform

An e-Commerce Platform refers to the engine powering a brand’s online store. It includes the section of the website or mobile app where the customer completes an online purchase or transaction, helps manage inventory and can provide other functionality to fulfill orders. An e-Commerce platform can also extract valuable customer data at the point of purchase and feed into systems such as website analytics and/or a data management platform. This enables a brand to customize future communication with customers, making it more personalized to potentially drive both loyalty and repeat purchases.

Email Marketing

Email Marketing is one of the many channels a brand uses to communicate with its audience. As a direct form of communication, email campaigns are enhanced when messages are personalized, subscribers are segmented and emails are mobile-responsive. It is important in the context of the overall experience a customer has with a brand, and can be used for on-boarding and loyalty, as well as to encourage new sales.

IT Implications

Modern email marketing has evolved beyond email lists and direct click links. It is common now to use DMP data to enhance and segment customers for more targeted messaging. It is very important that the MarTech tools that take advantage of your first-party data to send messages out also feed data back to your DMP, which can handle this function, assuming your email system is integrated. IT needs to ensure the email process is designed not to be just a slave to the data, but to enrich the data. This needs to be done based on signals from the recipient to ensure brands can continuously add relevance to their messaging.

Importantly, the data used for emails can also inform your display advertising across channels such as mobile, desktop, and video. IT should ensure that the DMP is collecting all data on a customer journey and is integrated with the company’s email systems and ad server/DSP. This will allow marketing to deliver consistent messaging across the multiple channels.
Marketing Automation

Marketing Automation is the concept that underpins the use of marketing technology, or MarTech. It encompasses the multitude of platforms that help companies improve engagement with customers and increase efficiency by automating manual tasks and processes.

IT Implications

Marketing automation will likely require the integration of multiple solutions and platforms, such as a DMP, DSP, CMS, and analytics platform. The challenge to IT (and your vendors) will be in getting all of these systems integrated and tags implemented. You will need to pay close attention to match rates and attribution, and determine how mobile tracking will be incorporated (more on mobile matching in the Omni-channel Marketing definition). Tag management is important for marketing automation and should be closely managed.

Marketing Resource Management (MRM)

Marketing Resource Management helps brands manage the production of content and collateral in a systemic fashion. Closely aligned with CRM and DAM systems (both covered in this section), a good MRM approach helps marketing departments to produce and dispatch assets and manage workflows. A key objective of MRM is effective brand management – most can be set up to templatize the look and feel of content, along with appropriate messages to deliver to customers.

Personalization Engine

A Personalization Engine is software that powers a brand’s owned and operated channels (web site, mobile app, email etc.) to deliver customized experiences for users based on what is known about them. This data-driven approach can dynamically tailor content (including messaging, images, and offers) based on customer attributes, previous behavior or interests. This service is typically used to drive online retailer and entertainment offerings, and on social media platforms. It is also used to improve customer engagement and conversion, branding, and to increase the time that customers spend on particular websites.
**IT Implications**

Personalization engines run in the background of a company’s customer engagement process, and often provide recommendations to individual customers. Personalization engines require heavy IT involvement as they leverage data from a variety of enterprise systems to determine customer preference. The creation of an effective personalization engine requires brands to work closely with the IT department and build an orchestrated experience across their digital assets.

**Personally Identifiable Information (PII)**

Personally Identifiable Information is data that uniquely identifies a consumer. PII is deterministic (you know it is a particular person), as opposed to probabilistic (it is likely to be that person). The data can include full name, address, email address and date of birth, for instance. PII is mostly collected when consumers sign up for services and share personal profile details. There are strict laws in place about obtaining, storing and using PII for marketing and advertising purposes.

**IT Implications**

Advertising is regarded as a legitimate use of consumer data, but you have to use it wisely. The definition of PII varies by region, as do the legal requirements around it. Your IT team will need help from legal to navigate regional complexities.

Technology departments need to assure the business that their customer information is protected, and that encryption security is in place to keep personal data anonymous. This includes oversight of external technology vendors who collect and store data via digital marketing.

The introduction of GDPR in Europe and new privacy directives in other jurisdictions mean that brands need to create rigorous compliance requirements, in association with their vendor suppliers and internal IT. It is possible to continue planning smart, relevant, data-driven campaigns, as long as you use the right partners who have done the work to ensure compliance.
Predictive Analytics

Predictive Analytics refers to a set of tools that facilitate an advanced kind of analysis that uses marketing and advertising data to anticipate what consumers are most likely to do next. Brands apply predictive analytics to gain a more informed view of their audience and customize future advertisements to increase relevance. For example, several historical data points such as salary, payment history and browsing behavior can help determine if someone is likely to become a credit card customer or not.

Brands also use predictive tools to inform the development of new products, e-commerce interfaces, and digital marketing programs. Predictive analytics has proven to be beneficial for companies that have invested in systems that can predict consumer behavior, enabling them to fine-tune and customize their products and services, and boost revenue.

IT Implications

Predictive analytics is similar to the process of marketing automation, as information is also sourced from the DMP. It enables organizations to review traits of customers that bought a certain product — location and demographic traits, or purchase interests, for example — and find new potential customers that match those criteria.

The IT department should be involved in the selection and implementation of a predictive analytics suite into the enterprise software stack. A predictive software deployment consists of data mining and analysis, statistical modeling and reporting, and is usually delivered by a specialist vendor. When the organization has internal data scientists, IT involvement is needed to ensure that the ongoing modeling leverages data appropriately and complies with relevant regulations. The challenge is to ensure smooth integration of a complex mix of data collection, robust transactional systems reporting, and the suitable application of the right modelling techniques.
Search Engine Optimisation (SEO)

Search Engine Optimization refers to the discipline of building and updating a brand’s website to get the highest possible rank in organic (non-paid) search results. It includes content optimization, meta tagging and site structure. Websites that deliver good content and a positive user experience (such as quick page load speeds) rank higher in search results, meaning users are more likely to click-through to pages. SEO is generally considered a continuous process, rather than an end result.

Social Listening

Social Listening tools (also known as social media monitoring) help a brand to monitor online conversations and comments relevant to their business on social platforms including blogs, forums, news sites and community pages like Facebook.

The tools identify patterns, track sentiment and provide insights enabling brands to respond to consumer demands and concerns in real time, as well as gain feedback to improve products and services. Sophisticated strategies can also link into the CRM to build a more complete profile of a customer or prospect with the ultimate goal of better serving target audiences.

Social Media

Social Media represents the total social media presence of a brand on the internet. The umbrella term can include networks and communities on social platforms, along with paid advertising. It typically includes publishers such as Facebook, Twitter, LinkedIn, Instagram and Snapchat.

The social pages of a brand can feature an overview of its products and services, e-commerce functions, community discussion forums, latest announcements and other information aimed at building consumer engagement and interest.
**Tag Management System**

A tag is a piece of code that helps track users’ online behavior and engagement with a brand’s assets, whether on the website, with a digital ad or with an email. Brands with an extensive digital presence (website, mobile app, social media pages, large digital ad spends etc.) commonly have a high volume of digital marketing and advertising tags. A Tag Management System helps manage these tags and ensures all possible touch-points with prospects and customers are tracked. Solutions inside tag management can include campaign analytics, audience measurement and conversion tracking tools.

**IT Implications**

The emergence of tag management vendors has enabled many technology departments to outsource these tasks. Tag management is a unifying tool for technology executives because it reduces IT complexity by uniting customer data.

A comprehensive tag management system enables the organization to reduce chaos in marketing data collection. The task for IT is to ensure the same customer profile can be easily shared across the entire marketing technology stack, creating unified messaging across channels and devices.

IT also needs to be aware of compliance and governance issues which may arise from the deployment of tags. This is an issue garnering greater scrutiny with the arrival of GDPR.

**User Experience (UX)**

User Experience (UX) is a subset of customer experience (see CX). In relation to MarTech, it refers to the ease with which customers can use and navigate a brand’s digital properties and assets, such as the website and mobile app. User experience can be impacted by things like extended load times, difficulty navigating between pages/sections or simply not being able to find the information they are seeking. A positive user experience can significantly increase a customer’s overall satisfaction, loyalty and perception of a brand.
Combined AdTech & MarTech Terms
1st-Party Data

1st-Party Data is information collected from a business (and its activities), for that business, by that business. This commonly refers to details about audiences or customers, but also covers performance of marketing strategies and advertising campaigns. Some common sources include CRM, website, mobile app, customer feedback, e-commerce platform etc. 1st-Party Data is owned by a brand, that has complete control over how it is collected, processed and used. Information is unique to that business and generally the most accurate type of data.

2nd-Party Data

2nd-Party Data is simply somebody else’s 1st-Party Data. It is procured through a direct transaction and is normally the result of a reciprocal partnership, though not always. In theory, it enables a data exchange benefiting both parties and involves a predetermined and defined agreement. An example could include a hotel chain and airline sharing information to target audiences with relevant offers.

3rd-Party Data

3rd-Party data is information compiled from a variety of sources by an unrelated company, which is then anonymized and packaged into off-the-shelf segments. A 3rd-Party data provider might have relationships with multiple publishers and companies to build a scalable audience of ‘in-market automotive shoppers’. This can then be purchased and plugged into either data-management platforms or demand-side platforms for use in targeting ads and marketing messages.

IT Implications

The key challenge for IT departments with 1st-Party data is to integrate data from multiple sources — CRM, social media, campaigns, POS — into a single source of truth. IT teams will have little to no direct involvement with 2nd- or 3rd-Party data, as most of that would happen at the DSP or DMP level. It will likely be included as part of media attribution and verification, so if you are building out those capabilities, you will need to include a tracking process to manage the project. However, IT departments with a strong mission...
Artificial Intelligence (AI)

Artificial Intelligence is the use of specialized computer systems to interpret vast reams of data to enable decisions to be made at a scale and pace not possible by humans. AI helps fill the gap between the huge amount of information marketers have and the ability to comprehend it. It is different to traditional computing, in that it can not only interpret data, but act on it — by deploying algorithms that learn over time. This can be applied to the worlds of search engine marketing, digital advertising, e-commerce, marketing forecasting, and other initiatives that need analysis of large volumes of data.

IT Implications

In AdTech and MarTech, AI would most likely be built into your DSP, your DMP, and perhaps your Ad Server. AI is also frequently used as a general term to describe machine learning and sophisticated pattern matching and predictive analytics, which gives it broad application in digital marketing and advertising. Since AI is the domain of data scientists, the IT team should work with the business to identify the priority use cases and applications.

Machine learning requires vast amounts of data — much more than most companies possess in their own databases. IT will have a good understanding of what will be possible for the organization given their existing data sources, and when they will need to subsidize it with outside data.
Application Program Interface (API)

APIs are, metaphorically speaking, the pipes that connect web programs and software systems for the purpose of sharing data. APIs enable digital products and services to send and receive information in a way that makes sense to both platforms. While there are a number of ways to use an API, a common example would be when a marketer wants to have both web and mobile analytics pushed into a data visualization platform for graphical representation. This can be plugged in using an API.

IT Implications

All AdTech vendors should have an API to allow for levels of automation. Any task you find yourself doing over and over should be automated. This includes creative upload, media plan upload, pulling basic reports, porting attribution data and many others. Your marketing team should be knowledgeable in all these areas, but focused on providing insights and expertise, not pushing buttons.

To take advantage of the APIs, your IT team would need to build or modify tools to connect with the tech vendor. This includes data visualization and analysis. To help them understand the end-goal of implementing an API, IT should gain clarity on the desired functionality and the business needs it will serve.

API functionality can include marketing automation, web analytics, search engine marketing, web analytics, and tagging and tracking management. These are key elements of the MarTech stack and require close IT management for any new deployments.

Attribution Tools

Attribution Tools refer to technology which helps marketers assign value to each of the touch points a brand has with a customer in the lead up to an online purchase or conversion. Attribution models vary in complexity from those that simply look at last click (what was the last thing a consumer engaged with) to more sophisticated multi-touch systems. A good attribution tool will consider exposure to advertising (on the AdTech side), as well as engagement with email marketing and website offers (on the MarTech side), then assign the right amount of influence that each has had on the consumer’s purchase decision.
**Cloud-based Technology**

Cloud-based Technology refers to products and services hosted on the Internet as opposed to businesses’ own servers. Most AdTech and MarTech platforms are cloud-based solutions that users log-in to and execute via web dashboards. This concept has been extended further to represent an aggregate of technology services that enable businesses to outsource digital processes to a single vendor (such as Adobe’s Marketing Cloud or Advertising Cloud).

**IT Implications**

Depending on your business case, it is most likely you would be using a vendor’s cloud-based platform rather than your IT team building its own, though some brands still choose to build their own in-house systems. The creation of marketing and advertising cloud platforms has enabled brands to outsource the deployment and day-to-day maintenance of digital marketing programs so they can spend their time on establishing frameworks, managing governance, and leading new strategic initiatives.

There are a number of cloud options available to businesses, such as hosted and hybrid cloud systems. On the AdTech side, there are several creative tools that have been built that use a vendor’s API to build ads without ever having to log in to that platform. This decreases training time needed for new employees.

A marketing cloud can include CRM functions, personalization engine capabilities, systems for online engagement and interaction, and data analytics processes. The IT team needs to consider the impact the marketing cloud will have on other aspects of the business, and is charged with unlocking this data for business use.
Data Management Platform (DMP)

A Data Management Platform is a central system that houses and manages both audience and campaign data. For marketers, it can provide a single source of truth that informs both AdTech and MarTech platforms and a unified view of their audience. A good DMP will enable the creation of custom audience segments and facilitate look-alike modeling, where users with similar attributes are grouped together to increase the scale of a segment. These can be used to target relevant advertising creative to specific audiences and/or customize an offer on the web site. It is one of the few components in the stack that truly bridges both marketing and advertising functions. DMPs can be incredibly powerful and transform your business. DMPs allow organizations to own the customer relationship, as opposed to continually renting an audience from an external data or media provider.

IT Implications

The deployment of a DMP should be approached with extreme diligence. Your first-party audience data is incredibly valuable and every effort should be made to avoid data leakage. As a result, your technology team should undertake a data security audit that addresses how data is shared between the advertiser, the DSP and the DMP.

Your selected DMP should be open and easily integrated with AdTech providers and media vendors, such as DSPs, publishers, and ad exchanges. If they do not allow for you to use the tech vendors/media of your choice, you should consider a different solution. A closed ecosystem where you are forced into paying for products you do not want or need is not going to benefit you in the long term.

If your DMP also provides a personalization engine, your IT team will need API documentation and information on how your site architecture will need to change in order to deliver a better, more relevant experience to customers. The IT department should be charged with determining if an external DMP vendor can implement cross-device matching and what the process will be for collecting and matching user devices. It will also need to review and audit tracking tags and container tags for browser-based tracking. The IT team must review the process for collecting mobile device IDs.
Match Rate is the percentage of unique users who can be matched between two different systems. For example, the number of users in an audience segment housed in a data management platform (DMP) that can be identified when pushed into a demand-side platform (DSP). The industry average for match rate between two different platforms sits at around 30–40%. However, many people expect an immediate 90% match rate, despite running on a small test budget and a limited audience pool. This is where the value of a combined stack, built on the same technology and powered by a single source of data, becomes apparent as match rates are significantly higher.

Whether your business does offline direct marketing or online programmatic advertising, the ability to reach the right audience is fundamental to achieving your marketing goals. In digital advertising, reaching a higher volume of a high-value audience gives an advertiser more opportunities, through leads, sales, and revenue, to drive performance. Many online advertisers use a DMP to consolidate audience data — such as site visitors, offline CRM data, partners data, and third-party demographics — and end up with robust, individual, anonymous user profiles they can use for audience segmentation and targeting across the web.

**IT Implications**

To help the business achieve the best possible match rates, the IT team needs a full picture of the digital acquisition strategy. This typically involves unifying audience data, media execution, and creative personalization to enable full-funnel ad-buying and optimization. High match rates enable organizations to target the right audiences, and drive higher online sales conversions.

Because advertisers often work with multiple technology platforms, the IT department should examine whether the advertising layer is tightly integrated with the other platforms. The technology officer should evaluate data sharing practices, and ensure that match rate data is being accurately and seamlessly collected and shared.
Multi-channel / Omni-channel

Multi-channel and Omni-channel are terms often used interchangeably in both advertising and marketing. They refer to any campaign or strategy spanning more than one medium, device, or element of the marketing mix. This kind of approach is aimed at maximizing reach into audiences and creating a fluid customer experience across all touchpoints, while still taking advantage of the unique benefits of the individual channels. For example, adding interactive elements to a video ad served on a mobile device, compared to linear streaming of a television commercial. The key is to understand the opportunities and nuances of each channel and measure them effectively (usually using an attribution tool of some form) to determine the impact they have on their own and in tandem.

Developing a full view of the customer journey is crucial to a successful omni-channel strategy. From the first impression through to purchase, marketers aim to guide a potential customer through the funnel. Building a dynamic creative campaign that tells a sequential story, builds brand trust, and leads to purchase is entirely possible in the open Internet, using existing technology.

IT Implications

Technology departments need to be aware of technologies that enhance the power of omni-channel marketing. Emerging technologies, such as AI, are enabling new ways for brands to leverage existing platforms, convert usage into data, and extract insights to identify and predict customer needs. The challenge for IT is to make sure multiple omni-channel marketing tools work together seamlessly to create a positive brand experience for customers.

The omni-channel solutions market is becoming increasingly crowded as marketing technology expands. The IT experts in your organization should invest in the right technologies and platforms, enabling the marketer to deliver fluid and relevant experiences across the customer lifecycle, irrespective of device, platform, or channel.
Optimization in AdTech and MarTech refers to the refining of strategies to drive better results or business outcomes. It can include both manual changes - made by someone using the technology platforms - and automated updates through the use of algorithms.

Return On Investment (ROI)

Return on Investment can be calculated and applied differently by different businesses. At a high level, it refers to how much of the intended outcome was generated, in relation to the amount of money spent on the activity to achieve it. It is a business metric that ultimately measures how advertising and marketing strategies contribute to an organization's bottom line. The increasing pressure on marketers to do more with less and greater accountability driven by advanced attribution tools, has enabled a shift away from softer digital metrics to quantifiable evidence of how strategies are contributing to real business outcomes.
Bridging The AdTech & MarTech Divide

Brand

Ad Server

Media Agency

Trading Desk

PBU

Ad Network

Advertising Budget

Demand Side Platform

Supply Side Platform

Publisher

Audience

Real-Time Bidding

Ad Exchange

Open Market Place

Private Market Place

Ad Server

Data Management Platform

Personalization Engine

Analytics Platform

Data Visualization Platform

Campaign Automation Tool

Customer Relationship Management

Digital Owned and Operated Channels

Website

App

Social

YouTube

Email

Content Management System

Digital Asset Management

Tag Management Platform

Data Management Platform

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# Index

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st-Party Data, 27</td>
<td>Black List, 7</td>
</tr>
<tr>
<td>2nd-Party Data, 27</td>
<td>Brand Advertising, 8</td>
</tr>
<tr>
<td>3rd-Party Data, 27</td>
<td>Brand Safety, 8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ad Blocker, 5</td>
<td>Data Management Platform (DMP), 31</td>
</tr>
<tr>
<td>Ad Exchange, 6</td>
<td>Data Visualization Platform, 18</td>
</tr>
<tr>
<td>Ad Fraud, 5</td>
<td>Demand-Side Platform (DSP), 9</td>
</tr>
<tr>
<td>Ad Network, 6</td>
<td>Digital Asset Management (DAM), 18</td>
</tr>
<tr>
<td>Ad Server, 6</td>
<td>Direct Response Advertising, 10</td>
</tr>
<tr>
<td>Agency Trading Desk, 7</td>
<td></td>
</tr>
<tr>
<td>Analytics (Web &amp; Mobile), 16</td>
<td></td>
</tr>
<tr>
<td>Application Program Interface (API), 29</td>
<td></td>
</tr>
<tr>
<td>Artificial Intelligence (AI), 28</td>
<td></td>
</tr>
<tr>
<td>Attribution Tools, 29</td>
<td></td>
</tr>
<tr>
<td>Cloud-based Technology, 30</td>
<td></td>
</tr>
<tr>
<td>Content Management System (CMS), 16</td>
<td></td>
</tr>
<tr>
<td>Content Syndication, 17</td>
<td></td>
</tr>
<tr>
<td>Customer Experience (CX), 17</td>
<td></td>
</tr>
<tr>
<td>Customer Relationship Management (CRM), 18</td>
<td></td>
</tr>
</tbody>
</table>
E
  eCommerce Platform, 19
  Email Marketing, 19

M
  Marketing Automation, 20
  Marketing Resource Management (MRM), 20
  Match Rate, 32
  Multi-channel/Omni-channel, 33

O
  Optimization, 34

P
  Personalization Engine, 20
  Personally Identifiable Information (PII), 21
  Predictive Analytics, 22
  Private Marketplace (PMP), 10
  Programmatic Buying Unit (PBU), 10

R
  Real Time Bidding (RTB), 11
  Re-targeting, 10
  Return On Investment (ROI), 34

S
  Search Engine Marketing (SEM), 11
  Search Engine Optimization (SEO), 23
  Social Listening, 23
  Social Media, 23
  Supply-Side Platform (SSP), 12

T
  Tag Management System, 24

U
  User Experience (UX), 24

V
  Viewability, 12

W
  White List, 13
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