What is MarTech?

MarTech (Marketing Technology) refers to any piece of technology a marketer uses to automate or streamline processes, collect and analyze data, or provide various means of reaching and engaging with existing or potential customers. The full suite of these interconnected tools a company leverages to achieve marketing goals and objectives is known as the MarTech Stack.

This glossary contains over 30 MarTech specific terms such as CDP, DAM, API, CRM, CDN, COS, DMP, IPaaS, and CMS.

These terms are highlighted in green throughout this publication which also contains important data and AdTech terms relative to the MarTech ecosystem and overall MarTech discussion.

The ANA will provide periodic updates to this publication as the MarTech ecosystem continues to evolve and additional technologies are developed and added to this space.
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 which 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.6

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 benefitting both parties and involves a pre-determined and defined agreement. An example could include a hotel chain and airline sharing information to target audiences with relevant offers.6

3rd Party Data is information compiled from a variety of sources by an unrelated company, which is then anonymised 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. 6

Ad Network provides an outsourced sales capability for publishers and a means to aggregate inventory and audiences from numerous sources in a single buying opportunity for media buyers. Ad networks may provide specific technologies to enhance value to both publishers and advertisers, including unique targeting capabilities, creative generation, and optimization. Ad networks’ business models and practices may include features that are similar to those offered by ad exchanges.9

Ad Server stores ads, serve them to publishers and their website visitors, count the clicks and generate reports. There are ad servers for publishers as well as advertisers, though the technology is roughly the same. The reason they have different ad servers is to gain greater control over inventory and reports.4

Agency Trading Desk is a team within an ad agency that executes online media buying as a managed service.15

Algorithm is a computing procedure or software code that performs calculations to solve a problem or deliver a business outcome. They are not static, but continually learn over time using live data to drive results. Algorithms exist within demand-side platforms to plan and buy ad spots, where they take into account campaign parameters and bid information, then purchase the most cost efficient and best performing media. They also power things like dynamic creative and landing page customization tools.6
Analytics (Web & Mobile)

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 monetisation statistics. Both areas include a vast suite of tools and metrics that provide a detailed picture of overall audience and customer engagement.6

Application Program Interface (API)

An Application Program Interface (API) can be viewed as 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.6

Artificial Intelligence (AI)

Artificial intelligence (AI) interprets vast reams of data to enable decisions to be made at a scale and pace not possible by humans. It helps fill the gap between the huge amount of information marketers have and the ability to comprehend it. AI 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 world of search engine marketing, digital advertising, e-commerce, marketing forecasting, and other initiatives that need analysis of large volumes of data.6

Attribution Modeling

The basic aim of attribution modeling is to figure out which marketing actions or channels contributed most to a certain customer action. It’s about using analytics to give credit where credit is due, and knowing how much credit is due. This gives you the data you need to optimize everything from budget allocations to messaging to campaign strategies.4

Attribution Tools

Attribution Tools refer to technology which helps marketers assign value to each of the touchpoints 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.6

Brand Safety

Brand safety refers to ensuring 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. It also extends to fast food brands not advertising to children and alcohol labels not advertising to people under 18. Most demand-side platforms have inbuilt defenses, but it is critical that advertisers and agencies customize brand safety thresholds and use appropriate technology to safeguard against failure.6
Click-Through Rate (CTR)
The percentage of ad impressions that were clicked on as compared to the entire number of clicks (CTR% = (clicks ÷ imps) x 100), ratio of users who click on a specific link to the number of total users who view a page, email, or advertisement. CTR is commonly used to measure the success of an online advertising campaign for a particular website as well as the effectiveness of email campaigns.9

Cloud
A term used by web-based companies offering users the ability to access files or services from devices that are connected to the internet (the opposite of storing files or programs on a hard or external drive).9

Cloud Computing
A distributed computing system hosted and running on remote servers and accessible from anywhere on the internet.14

Cloud Integration
At its most basic level, cloud integration means bringing multiple cloud environments together, either in a hybrid deployment or as multiple public clouds, so that they can operate as a single, cohesive IT infrastructure for an enterprise.12

Cloud-based Technology
Cloud-based technology are products and services hosted on the internet. Most AdTech and MarTech platforms are cloud-based solutions that users log into 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).6

Compiled Data
Data aggregated from publicly available offline sources and partnerships; usually nontransactional offline data.11

Content Delivery Network (CDN)
A large, distributed system of servers deployed in multiple data centers on the internet with the sole purpose of serving content to end-users with high availability and high performance.10

Content Management System (CMS)
A content management system is a platform used to create, store and manage digital assets. The platforms provide 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 website or app, as well as document and digital asset management for version control.5
Content Optimization System (COS)

A COS is basically a CMS (Content Management System), but optimized to deliver customers the most personalized web experience possible.²

Cookies

These are the little pieces of data that a website sends through a user’s browser to recognize a device for a future visit. They’re mostly used to relay information about a user’s portrait and previous activity on the site — such as how many items were in their shopping cart. They can also be used to connect the marketing platforms in your tech stack based on matched data sets.⁴

CRM Data (Customer Relationship Management)

CRM data is information collected on the customer or potential customer and managed by the marketer in their customer relationship management system (CRM). It is considered to be 1st party data. It can include offline data, which is customer data from offline activations such as coupon mailers, sales flyers, or loyalty cards; online data, which is customer data from online activities such as website visits, website registration, or online transactions; or personally identifiable information such as email, name, address, phone number, and purchase information.¹¹

Customer Data Platform (CDP)

A Customer Data Platform is packaged software that creates a persistent, unified customer database that is accessible to other systems. This definition has three critical elements:

- “packaged software”: the CDP is a prebuilt system that is configured to meet the needs of each client. Some technical resources will be required to set up and maintain the CDP, but it does not require the level of technical skill of a typical data warehouse project. This reduces the time, cost, and risk and gives business users more control over the system, even though they may still need some technical assistance.

- “creates a persistent, unified customer database”: the CDP creates a comprehensive view of each customer by capturing data from multiple systems, linking information related to the same customer, and storing the information to track behavior over time. The CDP contains personal identifiers used to target marketing messages and track individual-level marketing results.

- “accessible to other systems”: data stored in the CDP can be used by other systems for analysis and to manage customer interactions.⁷

Cross-Channel

Technology or media that applies across multiple formats and across multiple devices. This is different from “cross-device”, which implies only multi-device application rather than multiple formats within devices.¹⁵

Customer Journey Map

A customer journey map is how you visualize your customers’ experience with your brand. A customer journey map documents your customers’ touch points online and offline and documents how you measure each touchpoints effectiveness. This enables marketers to better understand how customers are interacting with you so that you can optimize the customer journey, remove gaps and roadblocks, in order to increase customer satisfaction, engagement, conversions and upsell opportunities.¹⁶
**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 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.

**Dashboard**

Dashboards are a reporting mechanism that aggregate and display metrics and key performance indicators (KPIs), enabling them to be examined at a glance by all manner of users before further exploration via additional business analytics (BA) tools. Dashboards help improve decision making by revealing and communicating in-context insight into business performance, displaying KPIs or business metrics using intuitive visualization, including charts, dials, gauges, and “traffic lights” that indicate the progress of KPIs toward defined targets.

**Data Aggregation**

The process of collecting data from multiple sources for the purpose of reporting or analysis.

**Data Center**

A physical facility that houses a large number of servers and data storage devices. Data centers might belong to a single organization or sell their services to many organizations.

**Data Cleansing**

The process of reviewing and revising data to delete duplicate entries, correct misspelling and other errors, add missing data and provide consistency.

**Data Enhancement or Enrichment**

Data, typically 3rd party, that is used to add more information to first party data. Examples includes data such as: Industry, Company Size or Annual Sales Volume for B2B markers. For B2C marketers some examples might be Home Ownership, Presence of Children, etc.

**Data Lake**

A large repository of enterprise-wide data in raw format. Supposedly data lakes make it easy to access enterprise-wide data. However, you really need to know what you are looking for and how to process it and make intelligent use of it.

**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-a-like modelling, 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 website. It is one of the few components in the stack that bridges both marketing and advertising functions.
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.

Data onboarding is the process of transferring offline data to an online environment for marketing needs. Data onboarding is mainly used to connect offline customer records with online users by matching identifying information gathered from offline data sets to retrieve the same customers in an online audience.

A discipline that incorporates statistics, data visualization, computer programming, data mining, machine learning and database engineering to solve complex problems.

Software that collects and provides access to data in a structured format.
### Demand-Side Platform (DSP)

A demand-side platform is 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 buy spots that meet these parameters 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, as this can mean it is partial to delivering campaigns across certain websites that it benefits from — rather than focusing on achieving the objectives of the advertiser.⁶

### 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.⁶

### Discrete Data

Data which is not measured on a continuous scale. Examples are binomial (pass/fail), Counts per unit, Ordinal (small/medium/large) and Nominal (red/green/blue). Also known as attribute or categorical data.¹⁴

### Frequency Capping

The limit of how many times a given ad will be shown to a unique cookie during a session or within a specified time period.⁹

### Hadoop

An open source software framework administered by Apache that allows for storage, retrieval and analysis of very large data sets across clusters of computers.¹⁴

### Health Insurance Portability and Accountability Act (HIPAA)

A nationwide regulation that maintains the privacy and security of certain medical information pertaining to an individual.¹¹

### Identity Graph

An identity graph, or ID graph, is a database that houses all the known identifiers that correlate with individual customers.¹¹

### Identity Resolution

Identity resolution is the near real-time process of connecting hundreds of identifiers, used by different channels, platforms and devices. It enables marketers — along with supporting agencies, technology platforms, data owners and publishers — to tie them back to the same person in a deterministic, privacy-safe way for people-based targeting, measurement and personalization.⁴

### Integration Platform as a Service (iPaaS)

Integration Platform as a Service (iPaaS) is a suite of cloud services enabling development, execution and governance of integration flows connecting any combination of on premises and cloud-based processes, services, applications and data within individual or across multiple organizations.⁶
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 template the look and feel of content, along with appropriate messages to deliver to customers.6

Marketing Stack
Your marketing stack is essentially all the technology you use to manage your marketing activities. The “stack” is an old technology idea that aims to order things by “layer.” Roughly speaking, the marketing stack starts with technology used to store, manage, and analyze your data. This is what’s often called “the data layer.”

On top of that, you’ll usually find technology to execute and optimize and manage campaigns. Your “application layer” includes marketing applications that are increasingly delivered as “SaaS” offerings, as well as media platforms, like Facebook, Google, Twitter, and Yahoo.

To get maximum value from your data and technology investments, you need a “connectivity layer” that connects your data to your applications and media platforms. Connectivity ensures data can be used to drive better experiences and results and also provides the marketing team with the flexibility to add in or swap out applications at will.4

Offline Data
This is data that’s collected and stored in ‘offline’ systems, like CRM platforms, point of sale (POS) systems, email marketing platforms, and contact center applications. Typically, this data is tied to some form of personally identifiable information (PII), such as an email address, name and postal address, or customer ID.4

Omni-Channel Experience
Omni-channel experience is a multi-channel approach to marketing, selling, and serving customers in a way that creates an integrated and cohesive customer experience no matter how or where a customer reaches out.3

Live Chat
Live chat is a tool usually available through an app or platform that enables your team to directly connect with your visitors. Think targeted instant messaging. Traditionally, live chat tends to skew more toward the sales and services industries, as it connects visitors directly with a member of your team and is best used in places where automation cannot solve for unique questions or situations.1

Machine Learning
A method of designing systems that can learn, adjust and improve based on the data fed to them. Using predictive and statistical algorithms that are fed to these machines, they learn and continually zero in on “correct” behavior and insights and they keep improving as more data flows through the system.4

Marketing Automation
Marketing automation is the concept that underpins the use of MarTech. It encompasses the multitude of platforms that help companies improve engagement with customers and increase efficiency by automating manual tasks and processes.6

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 template the look and feel of content, along with appropriate messages to deliver to customers.4
People-Based Marketing

People-Based Marketing is a growing discipline in which marketers target people rather than individual cookies, devices, channels, or browsers. Leveraging real-time behavioral data combined with first party brand data to connect the right people at the right time, with the right message brands can ingest and respond strategically to consumers in real-time across devices and channels, unifying the customer journey, and delivering an omnichannel experience.

Personalisation Engines

Personalisation Engines are software that power a brand’s owned and operated channels (website, 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, imagery, 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 consumers spend on particular websites.

Personally Identifiable Information

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

Omni-Channel Marketing

Omni-channel marketing seamlessly integrates the different communication channels that businesses use to communicate with customers. This approach uses the customers’ perspectives and interests to optimize the consistency of the company’s marketing messages. By uniting the strengths of each communication channel, marketing teams can use omni-channel marketing to deliver a more consistent and effective brand message.

Optimization

Optimization in the sense of 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 (see earlier in this section).

Outlier Detection

An object that deviates significantly from the general average within a dataset or a combination of data. It is numerically distant from the rest of the data and therefore indicates that something unusual and generally requires additional analysis.

Over-the-Top (OTT)

Over-the-Top refers to content accessed via the internet without the involvement of a television service provider. OTT includes Subscription Video-on-Demand (SVOD) services like Netflix as well as free ad-supported services like Hulu.
Structured Data
Data that is organized according to a predetermined structure.¹⁴

Semi-structured Data
Data that is not structured by a formal data model, but provides other means of describing the data hierarchies (tags or other markers).¹⁴

Tag Management System
A tag is a piece of code that helps track users’ online behaviour 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 touchpoints with prospects and customers are tracked. Solutions inside tag management can include campaign analytics, audience measurement and conversion tracking tools.⁶

Taxonomy
A way of organizing data into categories and subcategories to enable greater segmentation and filtering.⁵⁶

Topological Data Analysis
Analysis techniques focusing on the theoretical shape of complex data with the intent of identifying clusters and other statistically significance trends that may be present.¹⁴

Predictive Analytics
Predictive analytics tools facilitate an advanced kind of analysis that uses marketing and advertising data to preempt 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.⁶

Spark (Apache Spark)
A fast, in-memory open source data processing engine to efficiently execute streaming, machine learning or SQL workloads that require fast iterative access to datasets. Spark is generally a lot faster than MapReduce.¹⁴

Probabilistic Data
Probabilistic data in an audience group with a high probability to have been accurately profiled. Probabilistic data is created from a subset of deterministic data from which a model is built to identify a larger targeted audience.¹¹

Programmatic
Media or ad buying that uses technology to automate and optimize, in real time, the ad buying process. This ultimately serves targeted and relevant experiences to consumers across channels. On the back end, algorithms filter ad impressions derived from consumer behavioral data, which allows advertisers to define budget, goal, and attribution, and optimize for reduced risk while increasing ROI.⁹

Taxonomy
A way of organizing data into categories and subcategories to enable greater segmentation and filtering.⁵⁶

Semi-structured Data
Data that is not structured by a formal data model, but provides other means of describing the data hierarchies (tags or other markers).¹⁴

Software as a Service (SaaS)
Enables vendors to host an application and make it available via the internet (cloud servicing). SaaS providers provide services over the cloud rather than hard copies.¹⁴
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unique User/Device ID (UDID)</td>
<td>Sometimes called UDID; identifier assigned to a device or user that lasts until the device is reset or the account is deleted.</td>
<td>25</td>
</tr>
<tr>
<td>Unique Visitor</td>
<td>A person who visits a website more than once within a period of time. Marketers use this term in contrast with overall site visits to track the amount of traffic on their website. If only one person visits a webpage 30 times, then that webpage has one UV and 30 total site visits.</td>
<td>24</td>
</tr>
<tr>
<td>Unstructured Data</td>
<td>Data that has no identifiable structure, such as email message text, social media posts, audio files (recorded human speech, music), etc.</td>
<td>24</td>
</tr>
<tr>
<td>User Interface (UI)</td>
<td>A type of interface that allows users to control a software application or hardware device. A good user interface provides a user-friendly experience by allowing the user to interact with the software or hardware in an intuitive way. It includes a menu bar, toolbar, windows, buttons, and so on.</td>
<td>24</td>
</tr>
<tr>
<td>Variety</td>
<td>The different types of data available to collect and analyze in addition to the structured data found in a typical database. Categories include machine generated data, computer log data, textual social media information, multimedia social and other information.</td>
<td>24</td>
</tr>
<tr>
<td>Velocity</td>
<td>The speed at which data is acquired and used. Not only are companies and organizations collecting more and more data at a faster rate, they want to derive meaning from that data as soon as possible, often in real time.</td>
<td>24</td>
</tr>
<tr>
<td>Veracity</td>
<td>Ensuring that data used in analytics is correct and precise.</td>
<td>24</td>
</tr>
<tr>
<td>Video Ad Serving Template (VAST)</td>
<td>Video Ad Serving Template; a universal XML schema for serving ads to digital video players.</td>
<td>24</td>
</tr>
<tr>
<td>Video Player Ad-Serving Interface Definition (VPAID)</td>
<td>Video Player Ad-Serving Interface Definition; allows a rich interactive user experience within stream video ads.</td>
<td>24</td>
</tr>
<tr>
<td>Workflow</td>
<td>A workflow is another way to describe a lead nurturing campaign. It's a set of triggers and events that move a lead through the nurturing process. A workflow can also serve other purposes, such as adjust contact properties on a lead record based on certain conditions, or adding a contact record to a certain list. Regardless of how you use it, workflows can be a very powerful asset in an inbound marketing strategy.</td>
<td>24</td>
</tr>
</tbody>
</table>
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