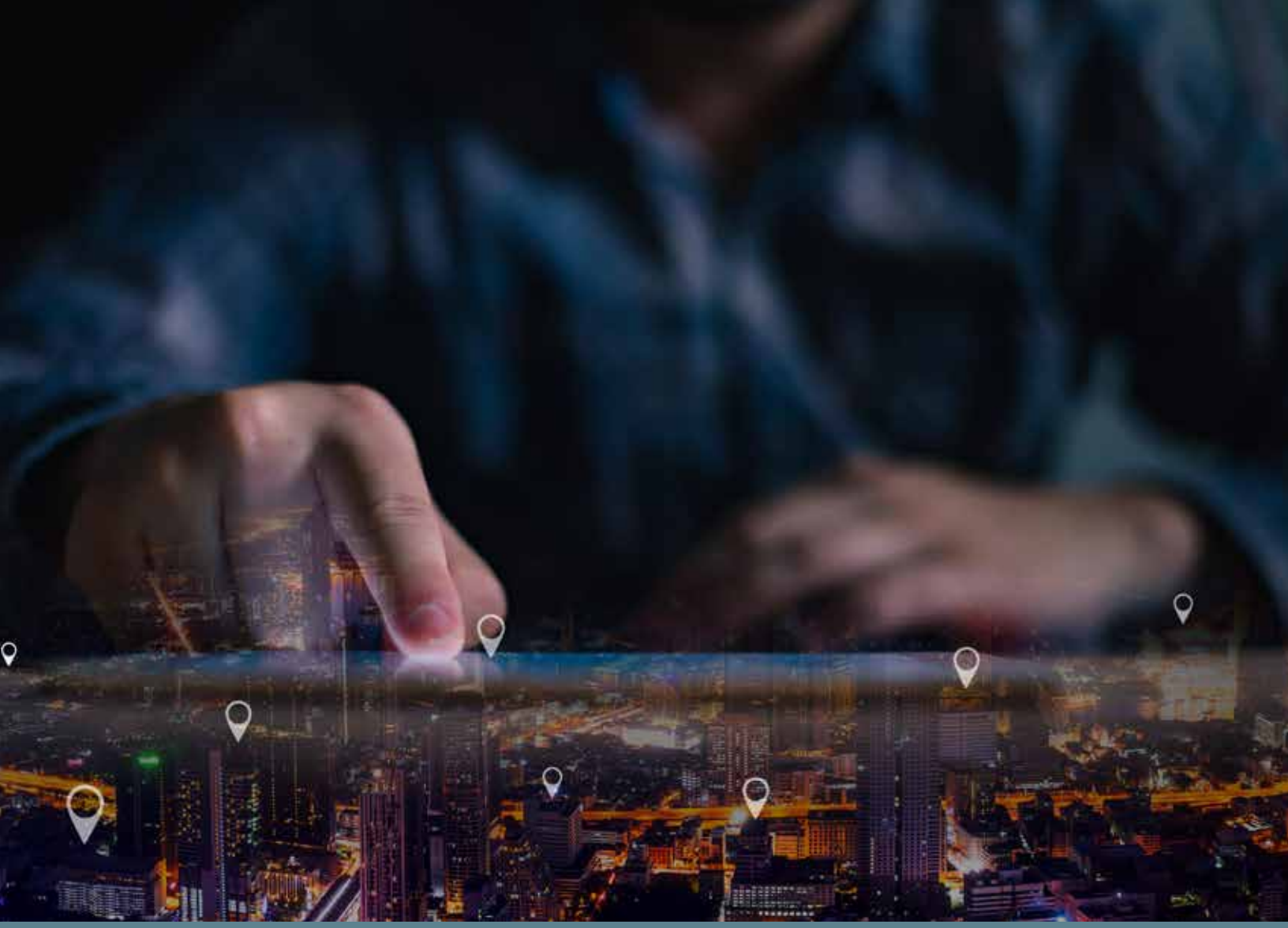


Mapping the Multi-ID Landscape

A Glossary

adstra
the new ideal

Executive Summary:
A New Map for the Advertising Value Chain

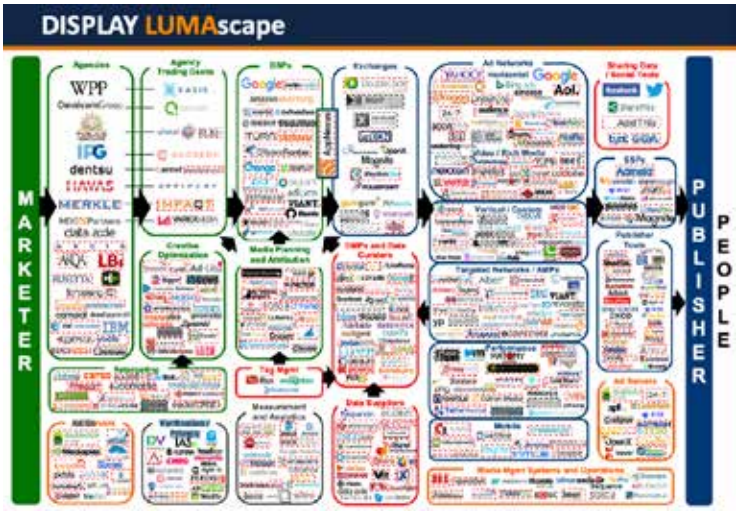
The advertising industry is currently navigating through a transformative phase, driven by significant changes in technology and regulation. This necessitates a fresh approach to mapping the advertising value chain. Traditional industry maps like the Lumascape have been pivotal in decoding the intricate and complex supply chain of media exchange. However, these maps, characterized by their dense clusters of logos representing various entities within the industry, are quickly becoming outdated due to rapid developments in the sector. They require continuous updates to reflect new entities, categories, terms, and the overall dynamics of the industry.

Adstra posits that the shifts in the industry have been so substantial that they warrant a comprehensive overhaul of the way these maps are structured. The call for a new map is underscored by several major secular trends that are reshaping the foundation of media exchange. Firstly, enhanced privacy regulations have diminished the traditional linkages used in media exchange, giving rise to a new era dominated by multiple identification systems and where first-party data is becoming increasingly central. This shift highlights the need for industry maps that can effectively represent the privacy-first future.

Additionally, the advertising industry is witnessing a proliferation of channels, leading to the fragmentation of what was once a more unified omnichannel mix. This fragmentation has further contributed to the emergence of a multi-ID reality, necessitating a map that can accurately reflect these diversifications.

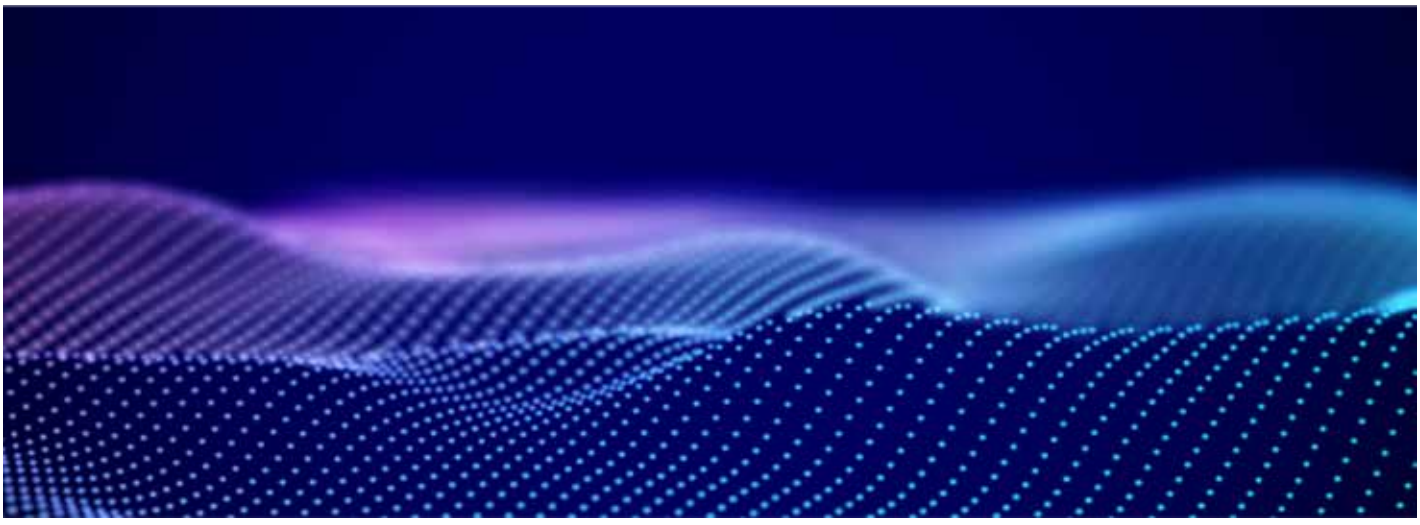
TOPICS:

Note the chaoticness of this display LUMAscape example. The **Adstra Map of Data Driven Media** was created to solve this problem.



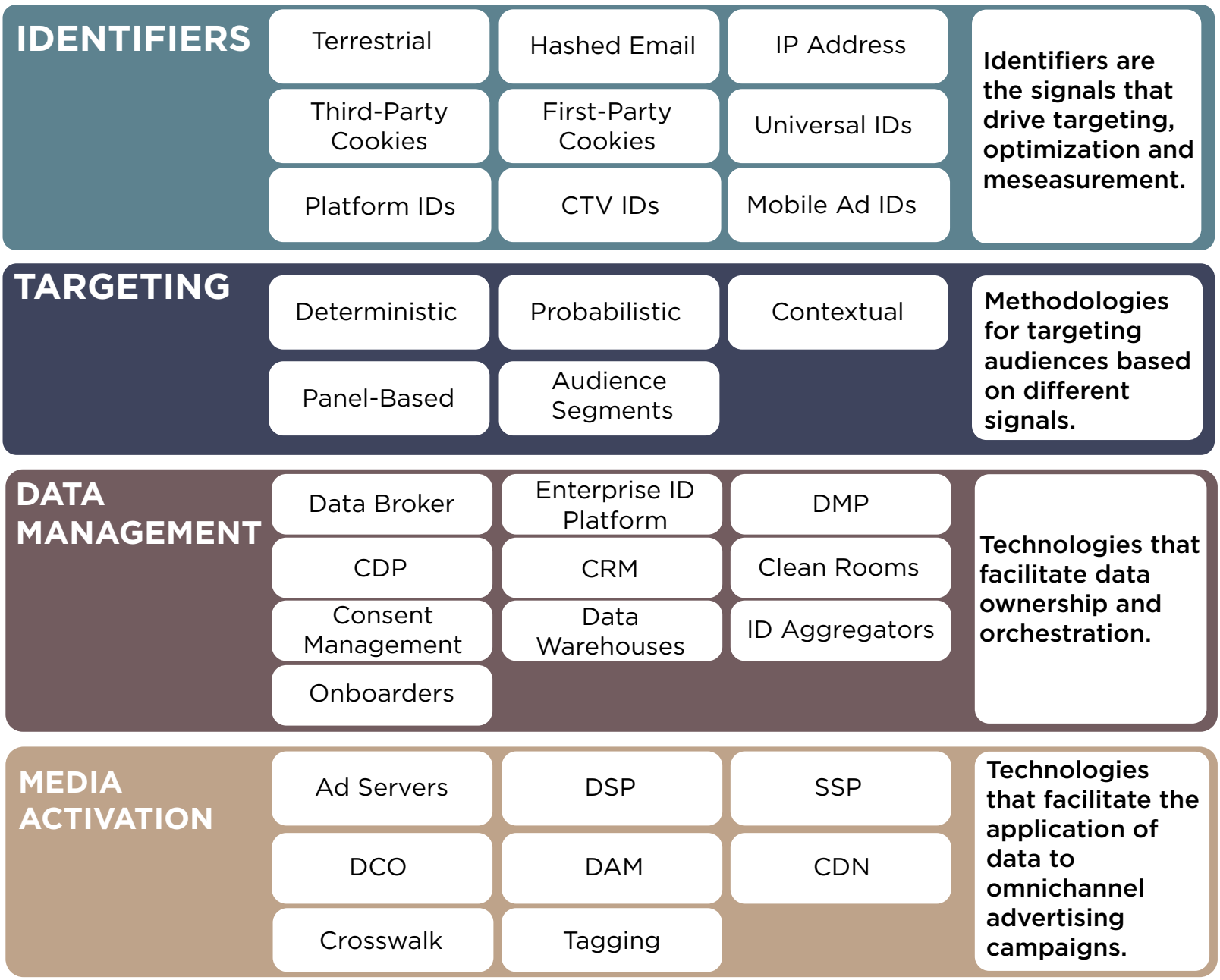
Logos frequently appear in multiple spots on traditional industry maps like the Lumascape, highlighting a fundamental inconsistency in how the industry is currently represented. In reality, there is almost always overlap between categories; many companies embody multiple roles, and have embodied others in the past. Boundaries that are not always clear-cut. Adstra's Glossary acknowledges this reality in its structure, describing technologies and functionalities instead of logo clouds and noting where the lines have begun to blur.

Therefore, to remain relevant and useful, new industry maps must not only accommodate these evolving realities but also provide clarity and insight into a rapidly changing digital advertising ecosystem. This call for an updated mapping approach reflects the industry's need to adapt to both technological advancements and changing regulatory landscapes, ensuring that stakeholders can navigate this complex field with greater understanding and efficiency.



ADSTRA MAP OF DATA DRIVEN MEDIA

A NEW WAY TO VISUALIZE THE VALUE CHAIN



MEDIA CHANNELS

Open Web Digital	In-App Advertising	Social Platforms
Retail Media	CTV	Linear TV
Direct Marketing	OOH + DOOH	Audio
Search		

Advertising inventory across all mediums and formats.

INSIGHT

MTA	MMM	Campaign Analytics
Customer Analytics	Creative Analytics	ACR
CTR	Return Path Data	ROAS
CPA	CAC	Performance

Technologies, methods and metrics for measuring the performance of advertising campaigns.

AI

LLMs	Chatbots	Computer Vision
Agents	AI-Driven Probabilistic	

Essential terms for understanding artifical intelligence and its role in media.

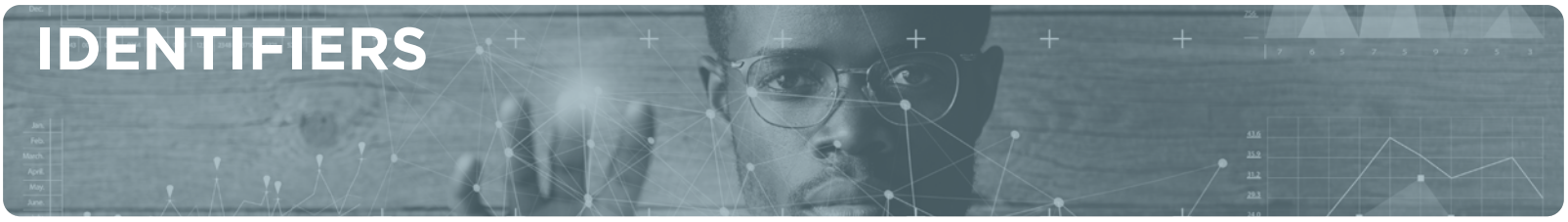
MEDIA EXCHANGE

Verification	Bidders	Bidstream
First-Price Auction	Second-Price Auction	Header Bidding
PMP	Prog. Direct	Deal ID
Safety + Suitability	Prog. Guaranteed	

Technologies and methods that organize the exchange of advertising inventory.

GLOSSARY

IDENTIFIERS



Terrestrial:

Terrestrial data includes personally identifiable information (PII) such as name, address, home phone, and mobile numbers. This data is essential for direct marketing strategies, allowing businesses to engage with customers via traditional methods like postal mail and telemarketing. Given its sensitivity, terrestrial data must be handled with strict compliance to privacy laws such as GDPR in Europe and CCPA in California, which dictate how personal data can be collected, stored, and used. The reliability and direct nature of terrestrial data make it a valuable asset for customer relationship management and personalized marketing, although it requires rigorous data protection measures to prevent misuse and ensure consumer trust.

Hashed Email:

Pseudonymized email addresses which have been encrypted to protect user privacy. Hashed emails serve as unique identifiers that allow advertisers to track and target users across devices and platforms without exposing personal details. Hashed emails come in several forms depending on the cryptographic method used; MD5, SHA1, and SHA256 are common types of hash functions used today, SHA256 being the most secure. Hashed emails serve as one of the primary forms of first party data in modern advertising exchange and data collaboration. Relative to other identifiers, hashed emails are among the most stable and persistent, as email addresses change infrequently.

Identifiers are the signals that drive targeting, optimization and measurement.

“Hashed emails serve as one of the primary forms of first-party data in modern advertising exchange and data collaboration.”

IP Address:

A unique numerical identifier assigned to each device connected to a network, as assigned by the Internet Service Provider (ISP). IP addresses are used in digital advertising to identify and geolocate users at the household level. Within IP addresses, there are two main types: Static IP addresses, which dont change unless the user changes it themselves, and Dynamic IP addresses, which change frequently and may only last for a couple days. Most ISPs use dynamic IP Addresses that rotate about once per week.

Third-Party Browser Cookies:

Anonymous identifiers that take the form of small pieces of data stored by a browser from websites other than the one being visited. These cookies have been pivotal for tracking user behavior across sites, serving as the backbone for digital advertising networks since the early days of online advertising. The reliance on third-party cookies has historically facilitated the linkage of user activity and interests across the web, enabling advertisers to deliver highly targeted ads. However, modern efforts to deprecate third-party cookies due to privacy concerns are reshaping the digital advertising landscape, pushing the industry towards alternative solutions like first-party data and privacy-centric models. Currently, an estimated 75% of digital advertising still involves cookies, highlighting their ongoing significance even as the industry evolves.

First-Party Cookies:

First-party cookies are created and stored by the website a user visits directly. As a crucial tool for personalizing the user experience on-site, first-party cookies provide publishers with insights into user behavior, which are instrumental for targeted content and advertising. Unlike third-party cookies, first-party cookies are controlled by the publisher rather than the browser, making them immune to the widespread

“Currently an estimated 75% of digital advertising still involves cookies, highlighting their on-going significance even as the industry evolves.”

deprecation issues facing third-party cookies. The persistency and lifespan of first-party cookies can vary significantly, but they generally remain on the user's device until they expire or are deleted by the user, offering a durable and direct channel for enhancing site functionality and user engagement.

Universal IDs:

Universal IDs are alternative tracking technologies designed to replace third-party cookies, by using consented user data (often hashed emails) to create a pseudonymous, persistent, cross-platform identifier for targeting and measurement. Universal IDs are relatively new innovations, having been introduced to the market in response to the deprecation of third party cookies. Universal IDs are as persistent as the data they are based upon (often hashed emails). While intended as a replacement for third party browser cookies, Universal IDs have not yet achieved comparable scale or adoption. Use of Universal IDs is expected to increase over the coming years.

Platform IDs:

Platform IDs, also known as Customer IDs, are unique, persistent identifiers created by digital platforms to track user interactions within their ecosystem. Platform IDs are based on interactions where users login to platforms, subscriptions. enabling precise targeting and analytics for advertisers operating on these platforms.

CTV IDs:

CTV IDs are essentially Platform IDs used in the connected TV space to target and measure advertising on streaming content. facilitating the delivery of personalized ads to viewers on smart TVs and streaming devices.

Mobile Ad IDs:

Unique, resettable identifiers provided by mobile operating systems, used by advertisers for tracking and targeting purposes across mobile apps, essential for ad personalization and measurement. The efficacy of MAIDs has been seriously hampered by Apple's efforts to deprecate them via ATT.

"While intended as a replacement for third party browser cookies, Universal IDs have not yet achieved comparable scale or adoption."

TARGETING

Deterministic Targeting:

A targeting strategy that relies on specific, identifiable user information (such as a hashed email address) to match ads to users across devices and platforms with often high accuracy, enhancing the relevance and effectiveness of ad campaigns. Important to note, the level of accuracy is contingent upon the reliability of the source data, which can be compromised if the data source collects inaccurate or misrepresented information (e.g., incorrect age, income, education as might occur on some social media sites). The fidelity of deterministic targeting is often indicated by match rates alone as accuracy is often not considered.

Probabilistic Targeting:

Uses statistical algorithms to infer user identities based on anonymous data points like device type, operating system, and browser, allowing advertisers to target users at scale when deterministic data isn't available. With the advancements in AI and the proliferation of connected data sources, probabilistic based identities can sometimes surpass the accuracy levels of deterministic data as it can adjust to conditions and situations. Take for example the household computer. There is unlikely a single deterministic answer to the user identity, but segmenting by time of day and site visited, a probabilistic approach could suss out which member of the household is using the computer at the time. Probabilistic targeting is at the root of "lookalike" audiences that extrapolate from a smaller sample into a larger group. Probabilistic targeting also allows for broader scalability when specific user data isn't available. Advertisers can increase the accuracy by integrating multiple data sources and refining their algorithms, giving them some control over the estimation process as would be true with any deterministic approach too.

Methodologies for targeting audiences based on different signals.

"With the advancements in AI and the proliferation of connected data sources, probabilistic based identities can some surpass the accuracy levels of deterministic data as it can adjust to conditions and situations."

Contextual Targeting:

Targets ads based on the content rather than the user, ensuring ad relevance in a privacy-conscious manner by aligning ad messages with content themes. The accuracy here depends on how effectively content themes are analyzed and matched with relevant ads. Advertisers have considerable control over this accuracy by using more advanced content analysis tools that can discern subtler content themes.

Panel-Based:

A research methodology that collects data from a representative group of users over time, providing insights into consumer behaviors and trends to inform audience targeting and media planning. The accuracy of insights derived from panel-based targeting depends on the panel's representativeness and the longitudinal data collected. Most panels screen for the obvious biases often found due to age, gender, economic background, education, etc, but may miss biases as advertisers test into the unknown. Advertisers can improve accuracy by ensuring the panel accurately reflects the target demographic and by employing robust data collection methods.

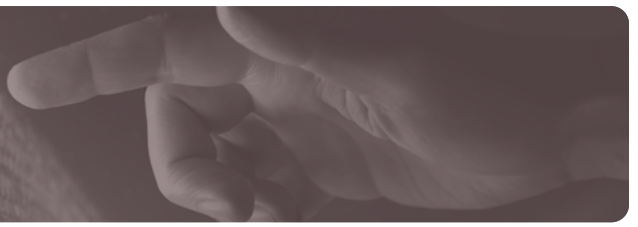
Audience Segments:

The practice of dividing potential customers into groups, or segments, based on shared characteristics, enabling advertisers to tailor their messaging for increased engagement and conversion rates. Audience segments are created based on any number of factors, including behavioral indicators, propensity models, or demographics. The accuracy of audience segmentation is influenced by the criteria used to define these segments and can vary widely. Advertisers can enhance the precision of segmentation by continually testing and refining these criteria based on new data, ensuring segments remain relevant and effectively targeted.

"Ads based on content rather than user ensure ad relevancy in a privacy-conscious manner."

"The accuracy of audience segmentation is influenced by the criteria used to define the segments and can vary widely."

DATA MANAGEMENT



Data Broker:

Data brokers have evolved from traditional offline data bureaus to sophisticated entities that integrate online, offline, third-party, and first-party data. These brokers now provide enhanced value by layering additional services such as data analysis, enrichment, and predictive modeling to support decision-making across marketing, risk management, and customer engagement. As data brokers expand their capabilities, they play a crucial role in the modern data ecosystem, offering more comprehensive data solutions and adhering to increased privacy standards to navigate the complex landscape of data regulation.

Enterprise Identity Platform (EIP):

An Enterprise Identity Platform (EIP) like CONEXA focuses on data orchestration and identity resolution across various user identifiers, enabling the seamless integration and management of customer data. EIPs are designed to cleanse and harmonize data, ensuring its accuracy and usability across the entire technology stack. By providing a consolidated view of customer identities, EIPs facilitate improved targeting, personalization, and compliance with data protection regulations. This capability to push clean, resolved data to any part of the tech stack makes EIPs invaluable in achieving efficient and secure data integration and utilization.

Data Management Platform (DMP):

A technology platform that collects, organizes, and activates large sets of data from various sources, helping advertisers and publishers target specific audiences across digital channels. DMPs have been central in managing and analyzing extensive data from various sources to enhance targeted advertising. Over the past

Technologies that facilitate data ownership and orchestration.

“EIPs are designed to cleanse and harmonize data, ensuring its accuracy and usability across the entire technology stack.”

years, DMPs have continued to evolve with the inclusion of advanced technologies such as AI and machine learning, helping advertisers create more precise targeting criteria and personalized ads. However, the phase-out of third-party cookies has put the role of DMPs at some risk and prompted a shift towards more secure and privacy-focused solutions, such as CDPs and data clean rooms, affecting the traditional role of DMPs

Customer Relationship Management (CRM) :

A system for managing a company's interactions with current and prospective customers, integrating data from various channels to enhance customer engagement and personalize marketing efforts. CRM platforms were often the first major data infrastructure investment for most companies as they represented the initial attempt to aggregate customer data into a single customer record and enable early customer experience and lifetime value based marketing. Historically, while CRM systems were not originally designed as marketing-first platforms, their evolution has increasingly incorporated marketing functionalities to support more integrated, data-driven marketing strategies. This integration bridges the gap between marketing, sales, and customer service, creating a more cohesive customer journey and enhancing the overall customer experience. The convergence of CRM with DMPs and other platforms reflects a broader trend towards more integrated and comprehensive data handling and analysis solutions, facilitating deeper insights into customer behaviors and preferences

Customer Data Platform (CDP):

A unified customer database that consolidates and integrates data from multiple sources into a single, comprehensive customer profile, driving personalized marketing activities and customer experiences. CDPs have risen in importance as they provide a unified customer database that integrates data from multiple sources into a single profile. This capability is increasingly critical as businesses move away from reliance on

"CDPs have risen in importance as they provide a unified customer database that integrates data from multiple sources."

third-party cookies towards first-party data strategies. CDPs help in delivering personalized marketing activities and enhancing customer experiences by leveraging comprehensive, consolidated data insights.

Clean Rooms:

Secure environments where companies can share and analyze data without exposing sensitive information, enabling collaborative insights and targeting while maintaining privacy and data security. Clean rooms have gained traction as secure environments where companies can share and analyze data without compromising sensitive information. This technology supports collaborative insights and targeting while adhering to stringent privacy and data security standards, making it a favored choice in a privacy-conscious market. While both today's data clean rooms and the safe havens of years past are designed to secure and match data between parties, clean rooms offer advanced capabilities for collaborative and analytical work across organizational boundaries, reflecting a more modern approach to data privacy and utility in a wide range of industries.

Consent Management (e.g., OneTrust):

These platforms are essential in managing user consents across digital properties, ensuring compliance with evolving data privacy laws. They facilitate transparent data collection and usage practices, which are crucial for maintaining trust and legal compliance in digital advertising strategies. The challenge of course is making sure any consent management platform being used stays current with the ever changing privacy regulations at a federal and state level. Organizations need to ensure their consent management solution is both current and integrated into the flow of all marketing execution to ensure full compliance.

“Clean rooms have gained traction as secure environments where companies can share and analyze data without compromising sensitive information.”

Data Warehouses/Data Lakes:

Centralized systems for storing, processing, and analyzing large volumes of data, supporting advanced data analytics and insights for strategic decision-making in advertising of both structured and unstructured data. Data warehouses are typically used to house structured data optimized for fast querying and reporting, while data lakes can store vast amounts of raw data in its native format, including semi-structured and unstructured data. Many organizations struggle with data silos, where data is kept in separate databases or systems, making it difficult to gain a unified view of data across the organization. While shifting data into a data warehouse or data lake does simplify the access, flexibility and flow of data, they do not immediately solve this challenge of data unification. Effective integration tools and strategies are needed to consolidate data sources into a single data warehouse or lake.

ID Aggregators:

Companies that collect and unify various user identifiers across multiple channels and platforms, helping advertisers create a more cohesive understanding of user identities across different devices and touchpoints. ID aggregators work with vast amounts of data, aggregating identifiers such as email addresses, device IDs, IP addresses, offline addresses, and more to stitch together user profiles that can be consistently recognized across platforms. By resolving identities across devices, ID aggregators enable marketers to deliver more personalized and relevant advertising, improving engagement and conversion rates, facilitating improved targeting, and enabling cross media measurement.

“By resolving identities across devices, ID aggregators enable marketers to deliver relevant advertising and cross media measurement.”

Onboarders:

Services that bridge offline and online data, enabling advertisers to match their offline customer databases with online identifiers like cookies or mobile IDs. This process, known as data onboarding, is crucial for extending the reach of digital campaigns by activating offline data for online targeting and personalization strategies. The integration of offline and online data has a significant impact on the reach and effectiveness of digital marketing campaigns. By enabling the use of offline data in online environments, onboarders help businesses expand their digital footprint, reaching customers more effectively across the internet. As an intermediary between marketer and activation point, Onboarders typically are a one way data flow, providing no ability to connect engagement data back at a customer level, and thus limiting refinement of audience targeting and measurement.

“Onboarders typically are a one way data flow, providing no ability to connect engagement data, limiting refinement of targeting and measurement.”

MEDIA ACTIVATION

Ad Server:

A technology platform that hosts and serves advertisements to pages, enabling publishers and advertisers to manage the delivery and tracking of ads across web and mobile platforms. Ad servers represent a critical juncture for transparency into advertising performance and measurement. Over the past few years, ad servers have become vertically integrated with platforms and walled gardens, with a handful of independent players remaining.

Demand Side Platform (DSP):

A system that allows buyers of digital advertising inventory to manage multiple ad exchange and data exchange accounts through one interface, optimizing programmatic ad buying. The original proposition of a DSP was to aggregate fragmented supply, but has more recently evolved toward more value-added solutions.

Supply Side Platform (SSP):

A technology platform enabling digital media owners to manage their advertising space inventory, fill it with ads, and receive revenue, essentially automating the selling of online ads. The original proposition of a SSP was to aggregate demand for suppliers, but has also more recently evolved toward more value-added solutions. As the demand side pursues Supply Path Optimization, SSPs have reimagined their position and become more heavily invested in first-party data infrastructure and measurement.

Technologies that facilitate the application of data to omnichannel advertising campaigns.

“SSPs have reimagined their position and become more heavily invested in first-party data infrastructure and measurement.”

Dynamic Creative Optimization (DCO):

A display ad technology that creates personalized ads based on data about the viewer at the moment of ad serving, optimizing creative elements to improve performance. Generative AI has brought new life to DCO, with the ability to not just adjust but also create content in response to behavioral, demographic or contextual signals.

Digital Asset Manager (DAM):

A system that stores, organizes, and retrieves an organization's digital content, streamlining the management and distribution of media files for advertising purposes. It is commonly used to centralize all digital assets in one accessible and secure location, allowing for easy sharing and updating across multiple teams and departments.

Content Delivery Network (CDN):

A geographically distributed network of proxy servers and data centers that deliver content rapidly to users based on their geographic location, enhancing the speed and efficiency of online content delivery. CDNs are crucial for reducing latency in video streaming, gaming, and other bandwidth-intensive services, ensuring high-quality user experiences.

Crosswalk:

This process involves mapping anonymous digital identifiers to personally identifiable information (PII) to unify online and offline data for a comprehensive view of customer behaviors. Crosswalks are crucial for marketers aiming to create seamless customer experiences and personalized marketing strategies across multiple channels.

Tagging:

Tagging technologies identify and label unknown site visitors with unique identifiers, transforming them into 'known' users. This allows for the collection of data on user behaviors, preferences, and interactions with the site, which can be used for targeted marketing and improved customer engagement strategies.

“Crosswalks are crucial for marketers aiming to create personalized marketing strategies across multiple channels.”

Deep Dive: The Multi-ID Landscape Is Already Here

by Lance Brothers, CRO

As the advertising industry grapples with signal deprecation, a clearer picture of the post-cookie future is emerging.

Innovations such as RampID, UID 2.0, ID5, and a suite of other deterministic IDs are stepping up to fill the void left by cookies. Though their adoption started off on a slow note, momentum is picking up quickly. Yet, it's evident that none of these alternatives can single-handedly match the expansive reach that cookies once offered. For most brands, leveraging a mix of these IDs will become essential to effectively reach their target audiences. It's becoming increasingly clear that the post-cookie era will be defined by a multi-ID landscape, where media targeting and measurement will rely on an increasingly diverse array of identifiers.

Lance Brothers, CRO

This shift towards a multi-ID reality isn't as sudden or unforeseen as some might suggest. In truth, we're already navigating through a multi-ID environment.

We are already a multi-ID landscape.

Consider the variety of channels that don't depend on cookies: Firefox and Safari browsers, iOS devices, Connected TV (CTV) and Linear TV, and all the major social platforms. These channels, collectively, account for a significant (if not the majority) share of all targeted media spending. None of them rely on cookies or any singular standard for identity.

Modern media consumption spans across multiple channels, making the advertising landscape fundamentally omnichannel. This

reality won't change; it only further entrenches us in a multi-ID world.

The deprecation of third-party browser cookies in Chrome is just the latest, albeit most dramatic, step towards embracing this underlying truth.

Adaptability and Interoperability

What does this mean for advertisers? It's time to focus on developing the capacity to manage the increasing complexity of identity for both targeting and measurement. Rather than yielding to panic and making hasty decisions, advertisers should recognize that moving to a multi-identity framework is a natural progression from existing practices. Emphasizing adaptability and a forward-thinking approach to incorporating multiple identity markers will be key to thriving in this new landscape.

The solution won't be found in selecting one ID solution over another; no single ID will emerge as the new universal standard, replacing cookies. Instead, brands should aim for adaptable, interoperable, and ID-agnostic strategies, seeking partners who can support such approaches.

Why Adstra?

My recent decision to join Adstra was driven by their alignment with this vision. Adstra not only acknowledges the inevitability of this shift but also possesses the technology and business model to assist brands in navigating this reality as it already presents itself.

The multi-ID landscape demands the ability to translate between any form of identity into any other, from first party cookies to synthetic IDs and CTV IDs. Advertisers must become interoperable and adept in this type of crosswalk to maintain the efficiency and effectiveness to which they’ve grown accustomed in digital.

The solution to multi-ID future is not to hope and pray for a single form of identity to rise above the rest. Instead, it’s to embrace the omnichannel, multi-ID present - and acquire the fluency to manage it as it becomes only more fragmented and complex.

MEDIA CHANNELS

Open-Web Digital:

Digital media inventory that is made available for direct buying as well as for programmatic exchange via DSPs or SSPs, frequently taking the form of IAB-standard ad units. This type of advertising leverages the broader internet outside of closed platforms, offering transparency and scalability in ad buying, critical for brands seeking widespread reach without the confines of platform-specific limitations.

In-App Advertising:

Ads delivered within mobile applications, ranging from banner and video ads to interactive and native ads, tailored to create engaging experiences for mobile users. Recently, in-app advertising has expanded to include gaming apps, which provide a highly engaging environment due to the immersive and interactive nature of games, opening up dynamic advertising opportunities through reward videos and in-game placements.

Social Platforms/Walled Gardens:

Online platforms like Facebook and Google that offer advertising opportunities within their proprietary ecosystems, with extensive control over data and ad placements. These platforms maintain their attractiveness by offering highly targeted advertising capabilities through rich user data, although they are often criticized for their "walled garden" approach to user information and market dominance.

Retail Media:

Digital advertising within e-commerce platforms and retailer websites, allowing brands to target consumers at the point of purchase with relevant product recommendations and ads. Retail Media Networks have emerged as a rapidly-growing channel as advertising

Advertising inventory across all mediums and formats.

“Retail Media Networks have emerged as a rapidly growing advertising channel as advertising transitions to a first-party data foundation.”

transitions toward a first-party data foundation. The growth of Retail Media Networks capitalizes on high-intent shopping traffic, providing advertisers with direct access to consumers at critical decision-making moments, supported by direct first-party data.

CTV:

Connected TV advertising refers to the placement of ads on internet-connected televisions and streaming platforms, offering targeted advertising opportunities within streaming content across various devices. CTV is among the fastest growing channels for ad spend, representing an increasing share of budgets. Streaming generally features a lower ad load than linear television, along with superior addressability.

Linear TV:

Traditional television advertising that is scheduled and broadcast across network and cable TV channels, reaching broad audiences through scheduled programming. Despite the rise of digital formats, linear TV continues to be a powerful channel for brand building and reaching demographics less prevalent on digital platforms. Innovations in performance measurement have demonstrated Linear TV to be an effective medium for driving outcomes across all stages of the customer journey.

Direct Marketing:

A form of advertising where businesses communicate directly with potential customers through various media, including mail, email, texting, and online ads, emphasizing personalized messages. This method is renowned for its effectiveness in customer retention and re-engagement by leveraging tailored communications based on individual customer data and behavior.

Programmatic Audio:

The automated buying and selling of online audio ad inventory, including podcasts, streaming music services, and digital radio, allowing for efficient, targeted ad placements in audio content. The rise of smart speakers

“CTV is among the fastest growing channels for ad spend, representing an increasing share of budgets.”

and voice-assisted devices has further boosted the reach and sophistication of programmatic audio, making it an essential part of the media mix with unique engagement opportunities in a screen-free environment.

OOH/DOOH:

Traditional OOH advertising includes billboards, transit, and other physical placements, while DOOH refers to digital media displayed in environments accessible to the public, like digital billboards and screens in high-traffic areas. DOOH allows for dynamic content changes and can be highly targeted based on time of day and audience demographics.

INSIGHT

Multi-Touch Attribution:

A method that evaluates the impact of each touchpoint in the customer journey, attributing credit to various marketing efforts to understand their contribution to conversions. This approach provides marketers with a holistic view of how each interaction influences a customer's decision-making process, enabling more efficient allocation of marketing resources and optimization of touchpoints across channels. The viability of MTA approaches has been significantly impaired due to the deprecation of third-party browser cookies.

Media Mix Modeling:

A statistical analysis technique used to estimate the impact of various marketing tactics on sales and then forecast the impact of future sets of tactics. Media mix modeling uses historical data to isolate the effect of individual marketing activities and predict their effectiveness in combination, supporting strategic planning and budget allocation. Media Mix Modeling is seeing a resurgence amid signal deprecation and the fall of Multi-Touch Attribution.

Campaign Analytics:

The measurement and analysis of marketing campaign performance, including reach, engagement, conversion, and ROI, to inform future marketing strategies. This analytics domain helps marketers adjust campaigns in real time and measure their effectiveness against specific objectives, leading to more targeted and successful marketing efforts.

Technologies, methods and metrics for measuring the performance of advertising campaigns.

"Media Mix Modeling is seeing a resurgence amid signal deprecation and the fall of Multi-Touch Attribution."

Customer Analytics:

The process of analyzing customer behavior and demographics to inform business decisions, personalize marketing efforts, and enhance customer experiences. By utilizing data from various touchpoints, organizations can identify patterns and trends that help predict future behavior and tailor marketing strategies to individual preferences and needs.

Creative Analytics:

The examination of creative performance across digital campaigns, focusing on how different creative elements influence engagement and conversion rates. This form of analytics assesses which visuals, messages, and formats resonate best with audiences, aiding in the optimization of future creatives for maximum impact.

Automatic Content Recognition (ACR):

A technology that identifies content played on a media device or present in the environment, ACR is extensively used in smart TVs and streaming platforms to detect what content is being consumed. This data is vital for understanding viewer habits and enhancing personalized content recommendations and targeted advertising. ACR technology captures data in real-time, providing broadcasters, advertisers, and platform providers with precise insights into viewer engagement. Return Path Data: This data is collected from set-top boxes and digital TV systems to analyze viewer behaviors and preferences. Return path data allows for detailed measurement of television audience metrics, offering insights into which programs are watched, at what times, and the viewers' demographic information. This data is crucial for networks and advertisers to optimize programming and advertising strategies for maximum audience engagement.

"ACR is extensively used in smart TVs and streaming platforms to detect what content is being consumed."

Attribution:

In digital advertising, attribution models determine which touchpoints or channels contribute to the desired customer action, like a purchase or a sign-up. Effective attribution is key to understanding the ROI of different marketing efforts, allowing advertisers to allocate budgets more efficiently and improve campaign strategies based on performance data.

Clickthrough Rate (CTR):

A basic yet essential metric in digital advertising, CTR measures the percentage of clicks on an ad relative to its total impressions. A high CTR indicates effective ad targeting and creative design, which are critical for gauging the immediate response of an audience to an ad.

Return on Investment (ROI):

This crucial financial metric measures the profitability of an investment relative to its cost. In advertising, ROI helps assess the effectiveness of a campaign in generating revenue compared to its expenditure, guiding future marketing budgets and strategies.

ROAS (Return on Ad Spend):

Similar to ROI but specific to advertising spend, ROAS measures the revenue generated for every dollar spent on advertising. It is a pivotal metric for evaluating the direct impact of advertising campaigns on sales performance.

Cost Per Acquisition (CPA):

This metric calculates the cost associated with acquiring a new customer through a specific campaign or channel. CPA is instrumental in determining the financial efficiency of different advertising efforts, guiding strategic decisions in campaign optimization.

Customer Acquisition Cost (CAC):

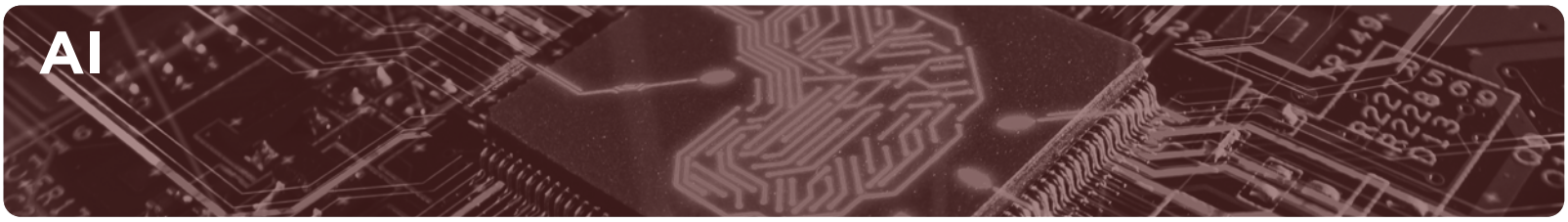
Often used interchangeably with CPA, CAC encompasses the broader costs associated with acquiring a new customer, including marketing and sales expenses. This metric is vital for understanding the total investment required to expand the customer base.

“Effective attribution is key to understanding the ROI of different marketing efforts.”

Performance:

In advertising, performance metrics encompass a range of data points, such as sales numbers, engagement rates, and conversion percentages, to evaluate the effectiveness of marketing campaigns. Performance tracking helps advertisers optimize their strategies and achieve specific marketing goals.

AI



Large Language Models:

AI systems trained on vast amounts of text data, capable of understanding and generating human-like text, used for content creation, customer service, and more. These models offer capabilities ranging from drafting emails to creating marketing content, enhancing efficiency and scalability in communications.

Chatbots:

AI-driven programs that simulate human conversation through text or voice interactions, commonly used for customer service, information retrieval, and engagement. Chatbots are integral in handling customer inquiries efficiently, providing round-the-clock service and freeing human agents for more complex tasks.

Computer Vision:

A field of AI that trains computers to interpret and understand the visual world, used in advertising for image recognition, audience measurement, and contextual ad placement. By analyzing visual content, computer vision helps advertisers place ads in the most contextually relevant and visually engaging environments.

Agents:

AI systems that can perform tasks or services for an individual, often used in programmatic advertising to automate the buying and placement of ads based on predefined criteria. These agents operate with a high level of precision and speed, enabling real-time bidding and decision-making that optimizes ad performance and cost efficiency.

Essential terms for understanding artifical intelligence and its role in media.

“Agents are often used in programmatic advertising to automate buying and ad placement.”

AI-Driven Probabilistic Targeting:

AI-driven probabilistic targeting blends deterministic methods, which rely on known customer data, with probabilistic techniques that infer behaviors based on patterns and probabilities. This approach enables advertisers to extend their reach beyond the confines of existing data sets by identifying likely customer behaviors and preferences. By leveraging machine learning and pattern recognition, AI-driven targeting can predict potential customer responses and optimize campaigns in real-time.

MEDIA EXCHANGE

Verification:

Technologies and services that ensure digital ads are delivered as intended, verifying the placement and context to protect against fraud and ensure brand safety. Brand Safety and Suitability: Measures and technologies used to ensure that digital advertisements do not appear alongside content that is detrimental to the brand's image, preserving brand integrity and consumer trust.

Bidders:

Components of programmatic advertising ecosystems that participate in real-time bidding (RTB) to buy ad space, making split-second decisions on which ads to place based on predefined criteria.

Bidstream:

The stream of data passed during the bidding process that includes various attributes of the available ad impression, such as user demographic information, site context, and historical performance data, which bidders use to make informed bidding decisions.

First-Price Auction:

An auction model where the highest bidder wins and pays the exact price they bid. This model provides transparency in bidding but may lead to higher costs for advertisers as they compete for premium ad spaces.

Second-Price Auction:

An auction model where the highest bidder wins but pays one cent more than the second-highest bid. This model is traditionally used in programmatic buying to help advertisers achieve cost efficiency while securing desired ad placements.

Technologies and methods that organize the exchange of advertising inventory.

"Bidders participate in real-time bidding (RTB) to decide which ads to place based on predefined criteria."

Header Bidding:

An advanced programmatic technique that allows publishers to offer their ad inventory to multiple ad exchanges simultaneously before making calls to their ad servers. This promotes greater competition and potential revenue by letting multiple demand sources bid on the same inventory at the same time.

Private Marketplace (PMP):

An invitation-only marketplace where high-caliber publishers offer their ad inventory to a select group of advertisers. PMPs provide more control over the ad buying process and are known for premium inventory that is not available on the open market.

Programmatic Direct:

A method of buying digital ads where deals are negotiated directly between the buyer and the seller, but the process is automated and uses programmatic technology for the ad placement.

Deal ID:

A unique identifier used in programmatic advertising to facilitate the buying and selling of media. It represents a specific negotiated deal between an advertiser and publisher, often within a private marketplace setting.

Programmatic Guaranteed:

A digital advertising purchase that combines the directness of traditional media buys with the efficiencies of programmatic technology. This guarantees inventory, price, and placement while still leveraging real-time optimization.

“PMPs provide more control over the ad buying process and are known for premium inventory that is not available on the open market.”