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Identity Crisis

Regulation, the end of cookies, and what modern marketing can do to save itself

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TL;DR

On January 14th, Google announced that they will be ending support for third-party cookies, via the Chrome browser, within two years.

Cookies are text files which are installed on a user's computer when they visit websites. Ending support for them will mean that only cookies set by the owner of that website—and associated with their domain (e.g. **www.essenceglobal.com**)—will be allowed (these are known as first-party cookies).

Although there are many important parts of the commercial web where third-party cookies cannot be used today (e.g. Facebook, YouTube, all mobile apps), they still play an important role in understanding user behaviour across the open internet, and measuring the effects of advertising across it.

Because Chrome's global market share in the browser category is over 60%, ending support for third-party cookies will impact (among other things):

· **Multi-touch attribution (MTA)** - Models will no longer be able to count many of the impressions served in the path to conversion

· **DMPs** – These will be limited in their ability to derive audience segments from site visits

· **Third-party data providers** - The ability to create audience segments based on browsing behavior and content consumption will be limited

· **View-through conversion tracking** - Third-party trackers placed by advertisers on their website will not be able to match conversions back to where ads were shown

Instead, approaches to measuring Chrome users will need to be rebuilt around Privacy Sandbox, a series of cookie-busting projects designed to 'create a thriving web ecosystem that is respectful of users and private by default,' and seen as insight into Google's long term vision for how user data is collected and used for advertising purposes.

While this is a turning point for our industry, the announcement can also be seen as the latest in a long line of shifts (e.g. GDPR, ITP) that herald a change in the way marketing needs to be done in the 2020s.

This change can be encapsulated by a set of five principles:

1. **Think Big(ger Data Models)**
2. **Revamp (and Radicalize) Research**
3. **The Power of Partnership**
4. **Augment the Ad Stack**
5. **Analytics Everywhere**

We believe that adopting these principles now will help marketers, their agencies, and partners chart a course toward that outcome in a way that can be simultaneously more sophisticated, more imaginative, and more ethical in its use of data all at the same time.

Contents

Introduction

It's okay to cringe when looking back at Mashable's Top 10 Digital Advertising Innovations of 2010.[1] Much of what they held aloft as the cutting edge of advertising has long gone ('CAPTCHA' ads anyone?). Some of it, like Promoted Tweets (#5), has stuck around and become a norm. Others, like iAds (#4) and Personalized Video (#7), have evolved into things people actually wanted.

But it was the start of boom time for Location-Based Advertising (#3).

Why?

Access to a vast and almost completely unregulated seam of device data enabled marketers to know where people were, and, by extension, who they were and what they might be thinking as a result. It was the days before the Identifier for Advertisers (IDFA was not introduced until 2015), notifications about background app behavior, Intelligent Tracking Prevention (ITP) type protocols and GDPR-type laws that would **disrupt these companies'** ability to collect user data through SDKs without permission.

These are both cautionary tales and a reminder that, as marketers, we enter this new decade under very different circumstances. Governments and technology companies are adopting tougher stances on the use of personal data, and the expectations of today's consumers is that their personalized marketing experiences are considerate, additive, and provided with their permission.

New decade, new rules—the first of which to contend with is that there will be near-zero thirdparty cookies by 2022.

This paper will explore how we got to where we are, what customer identity means both now and in the future, and which ideas and approaches can help marketers re-tool for the decade to come.

1 Mashable's Top 10 Digital Advertising Innovations of 2010

So, what just happened?

It's been close to a month since Google announced,[2] on its **Chromium Blog**, that it would be phasing out support for third-party cookies within two years. This means that all companies whose business model relies on placing cookies on users' devices via any domain other than their own may face challenges and may need to review the sustainability of their products and services. Multi-touch attribution, third-party data, and almost any business that relies on view-based conversion tracking as a measure of contribution all face challenges.

Google wasn't the first to implement sweeping measures to restrict interactions with user data. Apple's Safari and Mozilla both updated their browsers in 2019, but their combined global market share amounts to less than one-third of Chrome's.[3] Google's own narrative can be traced back to May 2019, when, on the same blog, it **announced new user cookie controls** within the Chrome browser. This announcement was underscored by Google Ads & Commerce chief, Prabhakar Raghavan, in a Google Ads **blog post** that opened with a succinct reminder of a stark reality: 'The ad-supported internet is at risk if digital advertising practices don't evolve to reflect people's changing expectations around how data is collected and used.'

Later the same year, a series of blog posts[4] announced plans to further evolve Google's approach to this problem, culminating in the announcement of **Privacy Sandbox**, which can be viewed as a series of cookie-busting projects designed to 'create a thriving web ecosystem that is respectful of users and private by default.'[5] Google faces a unique challenge in achieving this. Unlike the other ad platform companies with whom Google generally competes for market share (e.g., Facebook, Amazon), Google provides much of the infrastructure on which the open commercial internet runs, supporting the creation of content, journalism, and independent commerce.

To Google's credit, it has called for industry participation from the wider technical community, and the details of the Privacy Sandbox and related projects can be reviewed in high fidelity by the general public on **Chromium.org**.

Although these techniques described may be the current cutting edge of user identity in the privacy-first era, the last decade has seen several shifts in how we think about and recognize people on the web and, ultimately, the tools we use to drive personalized experiences.

> For a Primer of terms used in this paper, check out the special section on **pages 8–11** , or skip ahead to **page 12** if you know your SDKs from your IFAs.

2 Announcement made on January 14th 2020

3 **https://gs.statcounter.com/browser-market-share** (December 2019 statistics)

4 **https://www.blog.google/products/ads/next-steps-transparency-choice-control/**, **https://www.blog.google/products/chrome/building-a-more-private-web/**, **https://blog.chromium.org/2019/08/potential-uses-for-privacy-sandbox.html**

5 **https://www.chromium.org/Home/chromium-privacy/privacy-sandbox**

Primer

How cookies (and all that stuff) really work

About

Terms like 'first-party cookie' and 'resettable device ID' tend to be thrown around in whitepapers, press releases, and industry news as if they are commonplace vernacular. However, those words and phrases are seldom used alongside any grounding explainers as to what is really meant by them. While the world zigs, we're going to briefly zag with a short diversion on the different ways to track user behavior across digital devices.

What Is a First-Party Cookie?

Netscape developer Lou Montulli is widely regarded as having invented the HTTP cookie in 1994. Cookies gave the internet a memory of sorts, and they enabled explosive growth in the commercial web (dot com boom) for the rest of that decade, partly because they helped businesses understand who was coming to their website and how they were experiencing it— 'Like a ticket from a coat check, it would identify you when you returned.' Cookies, text files installed on a user's computer when they visit a website, were used to track when users last visited that site, what they put in their shopping carts, their ID numbers, and even passwords. Cookies installed directly by the owner of a website are known as first-party cookies (e.g., on **www.essenceglobal.com**)

What Is a Third-Party Cookie?

Where a first-party cookie are placed by sites you interact with directly, third-party cookies are placed by technology/companies that work with the site (e.g., CrossSiteTracker.com on www.essenceglobal.com) for tracking purposes. Able to track many of the same types of information as a first-party cookie, third-party cookies enabled companies to track the reach and frequency of advertising, as well as their direct effects on online purchases.

Both types of cookies employ browser (client)-to-server tracking that includes storage and tracking on an individual's computer.

What Is Server To Server (S2S) Integration?

S2S integration is when the servers of two parties communicate with one another in the background (e.g., a website server and another ad tech partner server). Although both parties may set cookies, the process itself doesn't store anything on a user's browser. Think about when you get a new driver's license at the DMV—you walk in and they give you a number. For example, let's say your number is 12345. That number is then used to track you for the rest of your experience. When you take your photo, it's connected to 12345. When you hand in your paperwork, it's connected to 12345 all the way through delivery of your actual license— whereupon 12345 is then discarded. If you go back to the DMV, you would get a new number.

What Is a Flash Local Object?

Flash cookies (also known as local shared objects or LSOs) helped users save certain settings related to the use of Adobe Flash (e.g., preferences for watching video on certain sites or caching music files for better streaming quality).

As with HTTP cookies, Flash cookies can also track browsing behavior and store unique identifiers, but they are harder for users to identify and delete. Whereas browsers offer user-friendly settings to control the storage of HTTP cookies, these settings don't apply to Flash cookies (which are stored elsewhere on the device). Flash cookies became so overused and exploited that browsers ended support for them just over three years ago.

What Are Mobile Advertising IDs (MAIDs)?

Cookies don't work on mobile apps. This gave rise to what is generically known as the 'Mobile Advertising ID' (around 2007). UDID was Apple's first version of the Mobile Advertising ID. It became problematic, however, because it was tied to the hardware and was persistent. In 2012, Apple created a resettable version (sometimes referred to as an 'RDID' or Resettable Device ID), which gave users the option to not have a persistent tracker assigned to their device for advertising purposes. Today, Apple's IDFA and Google's AAID are the made-for-advertising RDIDs for those companies' operating systems (i.e., iOS, Android). Both have the ability to toggle ad tracking on or off, to indicate whether or not an advertiser can access a user's MAID to build remarketing lists or measure campaign performance.

What Is a User Agent?

A user agent is a summary of your computer and browser settings, including browser version, installed plugins, operating system, and possibly device. The first user agent ever created was for the web's first browser, Mosaic, which was released in 1993. Its user agent string was NCSA_Mosaic/2.0 (Windows 3.1). NCSA stands for the National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign.

The second browser was called Mozilla, which is actually a portmanteau for 'Mosaic Killer.' User agent strings are still used in Chrome, Safari, and Internet Explorer today.

What Is Fingerprinting?

Fingerprinting is a technique used to identify a device by its settings to develop a picture about the device itself. If you open up your phone and compare it to your neighbors, you'll notice some differences. They might have a Google Pixel, and you might have an Apple iPhone. They might have the Pixel 4, and you might have the iPhone 8. They might have 24 apps using Chrome version 80, and you might have 17 apps using Safari on iOS 13.

The point, of course, is that we can discern 50+ differences between phones when you consider all the signals they emit, as well as all the data that can be harvested as a result of some simple JavaScript code. When you combine these data with some location data, these data points start to become more unique, enabling analysts to start making some pretty good guesses about the profile of devices.

What Is Single Sign-On Tracking?

As the number of web services and applications grew, the number of accounts and passwords to those accounts grew with them. Users started becoming frustrated with the number of unique passwords they needed to remember.

Facebook, Google, and others offered users the ability to use their existing account credentials to sign into other sites and services. This allows users to navigate the web and apps as they please without the hassle of having to sign in and manage services across the web.

What Is IFA on Connected TV (CTV)?

Not to be confused with Apple's IDFA, the Identifier for Advertising (IFA) was put forth by the IAB (along with four platform company partners) **at the end of 2018** as the recommended way to track advertising on OTT devices such as smart TVs, set top boxes, gaming consoles, and so on. Because IFA is a recommended standard, and because of the lack of consolidation within the OTT and connected TV industry, it requires widespread adoption and persistent support among manufacturers, app owners, and third parties to be effective.

What Are Software Development Kits?

Introduced in 2008 by Apple, the Software Development Kit (SDK) allows developers to implement a set of tools and libraries directly into mobile applications, often on behalf of a business partner. SDKs are divided up into roughly three different categories: (1) programming, (2) app maintenance, and (3) marketing. Without knowing it, users implement these SDKs behind the scenes when they install an app on their mobile device. It has been recently stated that the average Android app has 15.7 SDKs installed.

Summary

MAIDs and CTV IDs vs. Cookies

Although it's hard to know what might be in store for them from a consumer perception or regulation perspective, in general it's reasonable to back the resilience of MAIDs and CTV IDs long outlasting the cookie. They are more reliable measurement meters, and they function outside of the desktop browser, which **continues to see usage decline**.

First, cookies tend to churn, and are reset, on average every few weeks. MAIDs and IFAs—although resettable—are more persistent, integrated into the devices and operating systems they serve, and they don't require things like server-to-server synchronization to match in the way that cookies do across different websites. With permission, MAIDs can unlock a wealth of new data about a given device, such as location. In addition, identifiers like IFAs are designed by industry bodies, who can establish codes and standards, co-opt industry stakeholders, and represent solutions for privacy working groups and even governments.

ID COMPARISON

	Advantages	Disadvantages
Device ID	Standardized (IDFA/ADID) across apps Device ID lifespan unimpacted by legislative change or ad blockers	Publisher needs to enable the use of device IDs Limited to just in-app environments on mobile devices
Cookie	Enabled by default in some webv browsers Standardized across sites	Web only Lifespan limited across many web browsers by default Legislative change requiring consent and/or transparency of use

A brief history of user identity

Tracing the history of the cookie alongside other significant developments in the domain of user tracking should prove that ending support for third-party cookies was probably a long time coming.

The general resilience of cookie technology, the upsurge in mobile app usage, the rise of the so-called walled gardens (and their own internal identity systems), and the enactment of new privacy laws have led many commentators and industry experts to speculate on the 'death of the cookie' for several years now.

Therefore, Google's recent announcement does not come as a complete shock to any of those commentators.

Web 1.0 – The HTML Static Web

To understand the history of tracking, we must first put it into context with the history of the web itself. This time period saw the building blocks of the internet being forged from 1989 through the early 2000s. The concept of browsers allowed HTML code to be read and displayed in a visual way. This is where personalized web experiences started to flourish, powered and commercialized by the first-party cookie. In ad tech, the basic standard banner was the main form of digital advertising, with clicks being one of the primary success metrics. Because of dial-up speed limitations, this version of the web was concerned with page load time, and pixels were used sparingly for tracking.

Web 2.0 – The Explosion of Tracking

After the dotcom bust in 2000, the winners helped build the next generation of the web, which was later labeled 'Web 2.0' by Darcy DiNucci in 2002. This period was seen as a shift from users simply consuming largely written content to being invited to participate in and contribute to it. To accomplish this, users needed to rely on their browsers even more, and third-party tracking blossomed. In ad tech, there was an explosion of rich media vendors such as PointRoll, Eyeblaster, and Klipmart. Rich media provided an array of more eye-catching formats such as floating ads, expandable ads, and video banners. They not only ushered in a new era of ad-interactivity but also new opportunities for tracking engagement. Meanwhile, the iPhone's release helped push the United States into becoming a mobile leader.

Web 3.0 – The Semantic Web & Privacy

Unlike its predecessor, 'Web 3.0' doesn't really have a birth date. However, we think it's fairly recent for the following reasons: First, Web 1.0 and large parts of Web 2.0 were about counting things—visits, bounces, items in carts, conversions, and so on. However since about the middle of the 2010s, we started to live in a distinctly more algorithmic world, where our web experience was governed more and more by predictions around what we might like. Many of these predictions were made using data we had no idea we were handing over. Second, this and other factors led to the implementation of high standards for user data management from tech companies. Third, this was mirrored by new expectations for consent and the safeguarding of user data from governments, with new regulations, such as the General Data Protection Regulation (GDPR) and California Consumer Privacy Act (CCPA). At the nexus of these three reasons is likely to be an AI-driven web, with global checks and balances for data usage. In the gap, there are new standards for the ethical web that marketers themselves will likely need to have a hand in forging for their customers.

User Identity Timeline

1994 – First Browser Mosaic Released

1994 – The Cookie Invented

Cookies give the internet a memory of sorts, and enabled explosive growth in the commercial web (dot com boom)

1995 – First 3rd Party Ad Network (Doubleclick)

A viable marketing business model off 3rd party cookies explodes on the scene

90s – Server Side Insertion

Tracking evolves without dropping files on your computer

1998 – JavaScript Client Side Tracking

This form of tracking involves the user's browser (client) directly sending data to a server

2004 – Local Shared Object (Flash MX)

Adobe Flash (once accounting for a majority of ad banners) created a tracking cookie within flash, but security concerns led to their downfall

2007 – Facebook Connect

Ability to use a Facebook login and password to grant access to different apps via Facebook's platform

2007 – First Mobile Device ID Apple UDID

Enables campaign optimization and measurement of in-app inventory

2010 – FB Single Sign-On (Version 2 of Connect)

More privacy focused version that expanded to Mobile

2010 – Fingerprinting

Used to connect cross device IDs, especially where cookies aren't reliable

2011 – Release of Apple AdID, Deprecation of UDID

The first move toward a privacy compliant and resettable identifier, similar to cookies

2012 – Android ID Released

In response to Apple's UDID, Android ID is not resettable

2012 – Facebook Custom Audiences

Allows brands to show ads to current customers on the social network

2014 – Google Advertising ID

Resettable Privacy Compliant ID is released

June 2017 – Intelligent Tracking Prevention (ITP) 1.0

Safari is the first browser to enable privacy restrictions by default reducing 3rd party cookies to 1 day

2015 – Google Customer Match

Allows advertisers to upload a list of email addresses and have them matched with existing Google accounts

June 2018 – ITP 2.0

3rd party cookies are blocked by default and 1st party cookies are reduced to 24 hour windows

March 2018 – Cambridge Analytica

Media coverage of a Facebook data breach with potential political implications catapults data privacy to the global stage

October 2018 – ETP

Firefox releases a user controlled slider in settings to either block or allow 3rd party cookies

May 2018 – GDPR

European Union data regulation centers around consumer data consent and transparency

February 2019 – ITP 2.1

Safari introduces a new API to replace the JavaScript cookie

January 2020 – CCPA

United States data regulation centers around opt-out data tracking and transparency

April 2019 – ITP 2.2

Secures the API for use cases outside Cross-Site tracking

January 2020 – Chrome Announcement

All third party cookies will disappear from Chrome by 2022

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Why this matters

Over the past decade, the ability to set third-party cookies has given rise to some lucrative innovations in the advertising industry, spawning entire categories and subcategories of solutions to problems with ad spend optimization, adding to the seemingly ever-thickening logo soup of the industry's favorite supply chain diagram.

Some things that become challenging without third party cookies include:

- **Multi-touch attribution** – Models will no longer be able to count many of the impressions served in the path to conversion.

- **DMPs** – These will be limited in their ability to derive audience segments from site visits.

- **Third-party data providers** – These will also be limited in their ability to create audience segments based on browsing behavior and content consumption.

- **View-through conversion tracking** – Third-party trackers placed by advertisers on their websites will not be able to match conversions back to where ads were shown.

- **Frequency management** – The ability to manage frequency of exposure across platforms and sites will be affected.

- **Remarketing** - The ability to remarket banners with creative messaging to consumers based on browsing behavior, product interest, and so on will be impacted. Certain dynamic creative formats will suffer.

Third-party cookies have granted many marketers the ability to know their users better than many of those users could have ever imagined, and they have enabled agencies to elevate their value propositions by upskilling in advanced analytics, cloud computing, and data management.

Technical expertise has outpaced both government regulation and user concern over privacy, keeping ad tech a nose in front; however, the Cambridge Analytica scandal and a spate of high-profile customer data breaches have resulted in governments and users now paying more attention.

Although new laws are likely to create tremendous amounts of work for our industry—especially in their early iterations—GDPR, CCPA, and the like are paving the way for a more equitable consumer web experience and a more sustainable model for the commercial web.

Therefore, advertisers and agencies alike should welcome new legislation like CCPA, lean into and learn about projects like Privacy Sandbox, and embrace the challenge of a diminishing degree of user level data.

What we do now

As a philosophy, that's all very well and good. But what can we do about it?

Essence believes there are plenty of actions we can take now to help us become better prepared for a still uncertain future. We also believe these things go far beyond merely doubling down on what works now, entrenching, or bracing ourselves for January 14, 2022 (the current assumed 'drop dead' date for the end of third-party cookies in Chrome). The paradigm shift in user level data—from ubiquity to scarcity—presents marketers with significant opportunities to elevate both deductive and creative thinking and apply this across the campaign process.

We've identified five principles to start to live by as we navigate the beginning of a new decade in data-driven marketing.

#1 – Think Big(ger Data Models)

'One of the downsides of the platform era of digital marketing is that it taught a generation of marketers, their agencies, and partners alike to define 'data' as lists of targetable devices, classified by the audience characteristics they represented. There are also times when, as an industry, it can feel like we've started to become a little too single minded in our pursuit of deterministic user-level data and the opportunity to link it to other things.

Granular, fast-moving, structured and ultimately programmable data (for ad targeting, creative triggers, etc.) will always be important. But now more than ever we need to broaden our thinking about what data is, how we can use it, and where it fits along a spectrum. At one end is the responsive, granular and fast-moving type. On the other end is the more representative, aggregated and slower moving type.

Diminishing levels of the former ought to drive toward re-discovering the value of the latter, developing working models for campaign planning that allow one to calibrate the other. Event level data, for example, can only reveal so much to help us answer the bigger questions facing brands in the context of their category, their competitors, and consumers as a whole. When used in concert, many of the attributes that make aggregated data comparatively 'blunt' and slower-moving, can actually help us get more value out of the data sources we're already using by mitigating the biases that can tarnish more granular data.

> " **Growth and comfort do not coexist**"
>
> –Ginni Rometty,
> Executive Chairman IBM

(Re-)Introducing these new types of data to an audience of planners who grew up in a deterministic age is not necessarily easy. Achieving the right balance in emphasis on data sources is no small task, and certainly, the details are devilish. But, the first step on this journey requires something we all have the capacity to do: change how we think.

At Essence, that change in thought process manifested in a new planning philosophy we call Signals Planning—a process designed to turn data into predictions that help us plan advertising campaigns anchored in sources of growth. This process is designed around three cycles:
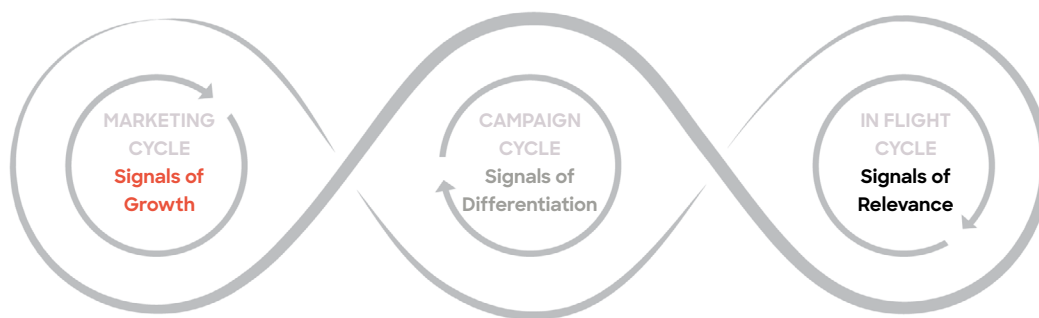
These same cycles allow us to overlay and plot different types and sources of data:
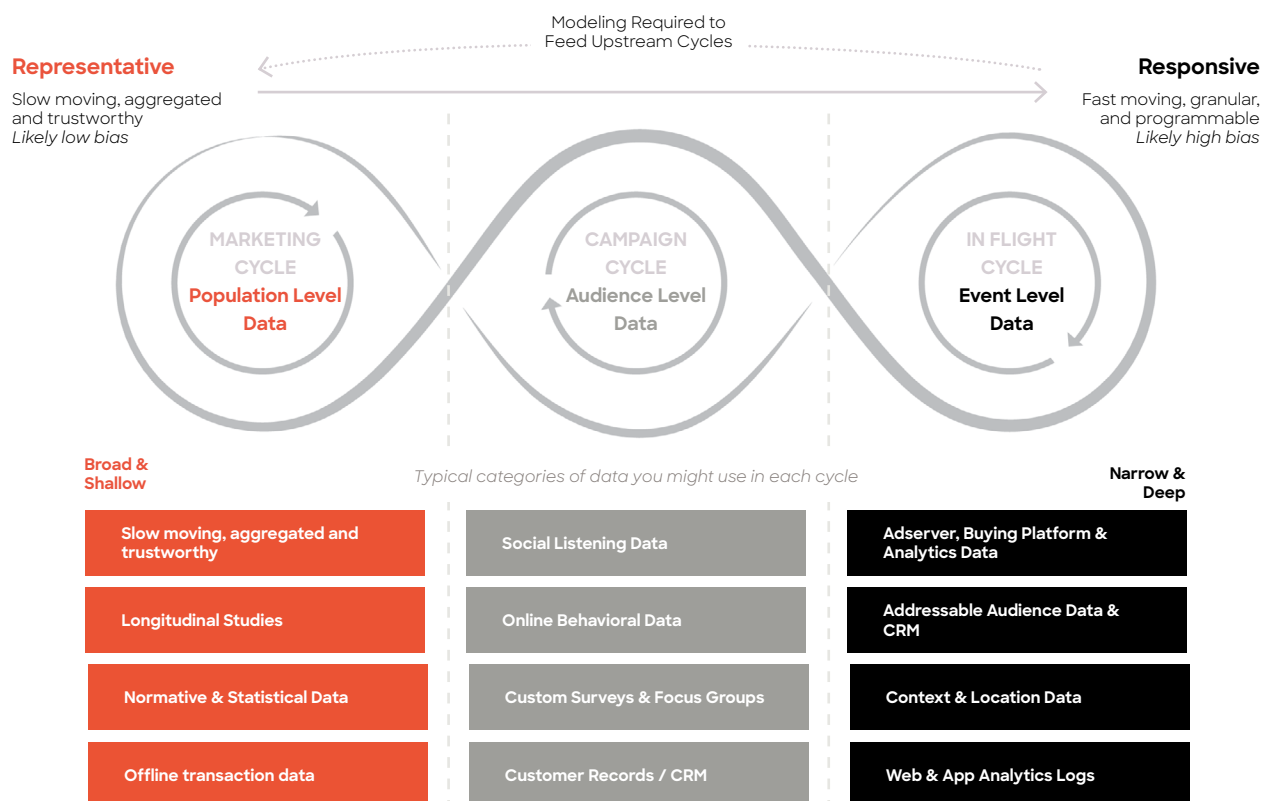
This enables strategists, planners and analysts alike to marry the key questions to the most revealing analyses enabled by the most appropriate data.

Next steps for marketers

NOW

Audit the data coming into the organization and that which can be made available by agencies and other business partners, and plot this along a simple spectrum based on grain and representativeness

▶ **NEXT**

Review low code AI/ML tools and services and look for opportunities to pilot, experiment with, and test, which involve both SMEs and non-analytics practitioners

▶ **AFTER THAT**

Test models to interpret two or more datasets side by side to determine where complements or conflicts exist, and interrogate those results

#2 – Revamp (and Radicalize) Research

*'Maybe stories are just data with a soul' – Brené Brown, University of Houston*

Returning to more representative, aggregated sources of data doesn't have to mean making new dogs learn old tricks. In fact, applying platform-era thought processes to insertion order-era data can help improve our understanding of that data, and point toward new means to interpret it.

For example, a widely used US national consumer survey of 24,000 respondents from 48 states allows marketers and their agencies to evaluate consumer attitudes, and behaviors, as well as their relationship categories, brands and media. The survey is taken twice annually, in the spring and fall.

Typically, junior researchers would use a third-party software to 'do the run', review the data and transpose the key findings to a summary document for comms strategists.

In a piece of analysis designed to identify growth opportunities among specific audiences, instead we ran the same queries for six separate surveys (spring and fall versions over the prior three years). Each time we were able to scrape the results into a database. This enabled us to analyze trends and derive a growth metric for each audience. Finally, we were able to input this data into a low-cost web-based data visualization tool that enabled planners to instantly identify growth opportunity audiences. See the chart on the next page for an example.

Identifying Growth Opportunities
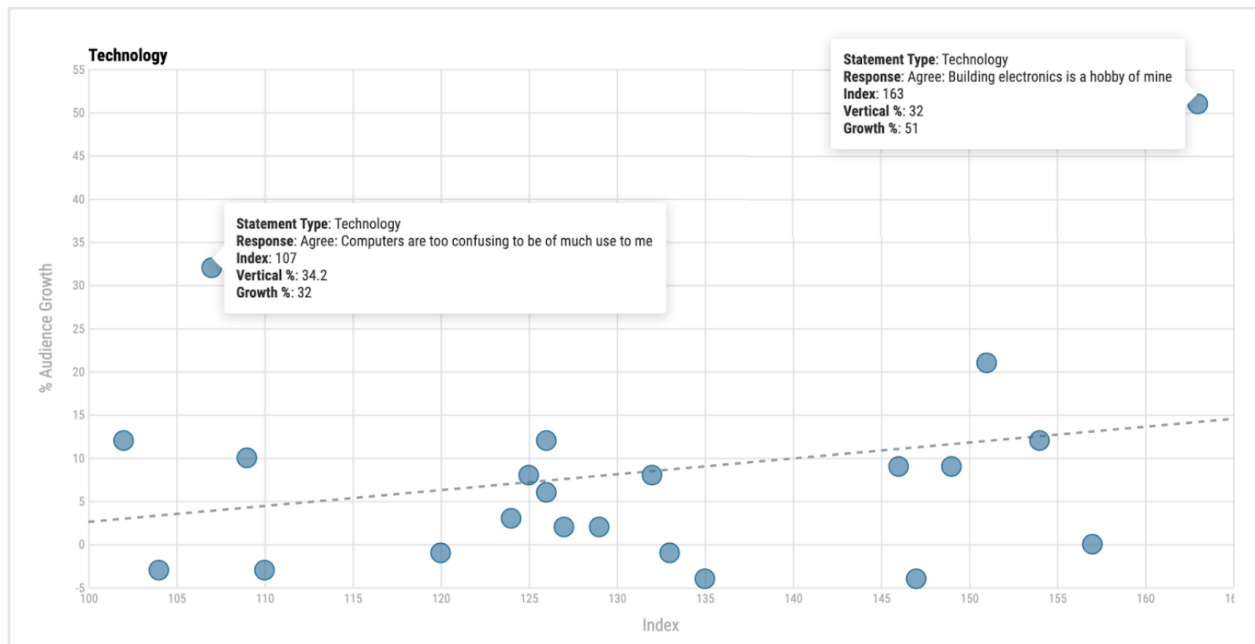
Structured and visualized this way, the data instantly highlights growth opportunities among outlying audiences based on trends in how many more respondents agree with certain statements over a three year period. We were able to replicate this analysis instantly across 18 different categories (the above being technology).

Next steps for marketers

NOW

Understand the specifics of the methodologies of your key market research partners and whether the data they provide can be made available in more structured machine readable formats (e.g. .csv rather than .pdf)

▶ **NEXT**

Set objectives for what you are trying to learn before compiling and preparing the newly formatted data for more holistic analysis

▶ **AFTER THAT**

Experiment with visualization options that shorten the path to insights generation. Once decisions have been made about the most insightful approaches, ensure the wider organization is equipped to correctly interpret the data!

#3 – The Power of Partnership

'Coming together is a beginning, staying together is progress, and working together is success.'
– Henry Ford

One of the consistent predictions for the next two years is that publishers will claw back some of the influence they have ceded to the middle bit of the 'audience supply chain' in the last decade.

Post-GDPR, second-party data has already grown in its importance due to the directness of the relationship between the publisher and their users. Publishers' ability to implement the consent management system of their choice, as well as set out their own 'code of ethics' for how they will leverage their users' data, puts them back in control of high-value audience data and does so within brand safe environments (for any publishers who are still reliant on white-labelling third-party audience taxonomies as their own, Google's news will trigger some homework—for the others, I suspect it's somewhat welcome).

> **AI ETHICS**
>
> **Essence has long championed the use of ethical AI in marketing, promoting responsible testing and the development of frameworks and parameters for automated decision making. For more on this, please read "Why advertising urgently needs its own code of AI ethics," or watch Andrew Shebbeare's talk at AdExchanger's Programmatic I/O.**

In fact, audience data is not the only data that publishers have to offer. They are uniquely positioned to provide consumer insights and cultural trends to inform the use of any targeting data. This approach is now being augmented with content analytics systems and teams that quicken a publisher's ability to understand who responds to what and optimize accordingly.

In the age of connected TV and the continuing fragmentation that afflicts that market, publisher-level content analytics could hold one of the keys to understanding audiences across the device ecosystem.

As a case in point for diversifying publisher data, we've had some success using full article content APIs to develop real-time hyper-contextual ads. The article data feeds a natural language processing (NLP) engine to understand the nature of the article and serve dynamic variants of ads based on what's on the page, relating that content to the product message of the brand. The results are a more personalized ad, using no personal data.

Next steps for marketers

NOW

Start a dialogue with strategic media partners about making data a broader part of your program with them, understanding what they have and what they can offer, not only in terms of audiences for targeting but also research and insights data and beyond (e.g. APIs)

▶ **NEXT**

Plot these data against the type of spectrum described in Principle #1 – Think Big(ger data models) – to understand how this data relates to other sources of insight, and how it could augment (or even replace) syndicated research

▶ **AFTER THAT**

Agree on a set of discrete 'data benefits' as part of your commitments to each other. This ought to include ways to foster working relationships between analysts in both organizations to structure tests and provide oversight into data usage and effectiveness

#4 – Augment the Ad Stack

'You've got to start with the customer experience and work back toward the technology – not the other way around.' – Steve Jobs

In a world where consumer data is increasingly regulated, the directness of the relationship between brands and consumers matters more than ever. This places extra emphasis on the importance of effective first-party data management for the customer experience. It also, in a world where third-party cookies disappear, increases the need to fully incorporate that data into the solution design of the ad stack (albeit in line with the expectations of those customers).

But haven't we always done that?

Yes, but probably not in the way we need to think about it in 2020 and beyond.

The typical 'box' that represents first-party data in the context of the marketer's ad stack is the one labelled 'DMP,' usually adorned with the name of a third-party provider. Emanating from the box are a concentration of arrows that point to other boxes (yes, we've spent years drawing these diagrams). But this depiction is increasingly less true. In fact, the label 'Data Management Platform' has probably always been a bit rich, especially for systems that manage device IDs in various forms, compile them into segments using rules, and enable portability only among established partners. Although the DMP category is probably not yet dead (contrary to some prognostications[7]), it will require significant evolution given the current headwinds.

7 AdExchanger **Google, You Finallly Really Did It**

What the marketing stack diagrams and operating processes of 2020 need to account for is the role of data management systems that we more usually associate with IT departments, and the role those systems can play as part of the marketer's toolkit. For example, how do Amazon's Web Service applications relate to and support its burgeoning ad platform? Conversely, how does Google's Cloud Platform do the same for its Marketing Platform?

Cautiously (and rightly so) integrations between ad systems and cloud systems are taking place. Marketer's now have the ability to use Google's Big Query machine learning tools (BQML) within its Ads Data Hub (ADH) platform for instance.

Cloud-based data management applications will play a role in helping marketers store, structure, analyze and interpret the types of data discussed in principles #1 and #2, and relate – although not necessarily link – that to data from their ad campaigns for holistic insights and channel level optimizations.

Over time, it's likely that cloud based applications for data management and machine learning will offer low code alternatives to ground-up, SME-level solutions which ought to enable more marketers and their partners to engage in and direct the use of those systems.

Therefore the ad stacks of the last decade and the new decade may look quite different:

Ad Stack for the 2010s

Measurement & Optimization	Measurement & Optimization	Campaign Reporting	Multi Touch Attribution (MTA)
Platform Activation	Programmatic	Social	Search
Data Management	3PAS	DMP (& 3PD Marketplace)	Onboarder
Data Origination	Marketer Websites & Apps	Web & App Analytics	Offline Customer Data & CRM

Ad Stack for the 2020s?

Ad Stack			Partner Clean Rooms	Cloud-based extensions	Why they matter
Enterprise BI	Campaign Reporting	Multi Touch Attribution (MTA) ?		Insights Data Visualization	Develop new visualizations for research data alongside campaign data
Programmatic	Social	Search	Partner Clean Rooms	Machine Learning Toolset	Develop models and training data for bidders
3PAS ?	DMP (& 3PD Marketplace) ?	Onboarder ?		Marketing Analytics Data Warehouse	Find new relationships between diverse datasets using statistical models
Marketer Websites & Apps	Web & App Analytics	Offline Customer Data & CRM		Marketing Data Store	Store mixed source data all in one place (e.g. log files, CRM extracts, performance data, research, BLS)

Next steps for marketers

NOW

Ensure you have a clear and authoritative (and preferably diagrammatic!) view of your current marketing and ad tech stack, down to how each component relates to the other and the data they share. Place an emphasis on your strategy for testing partner clean rooms, such as ADH

► ## NEXT

Share this view with the wider technology community within your organization and propose a collaborative program to evaluate the best uses for cloud technology within a marketing context

► ## AFTER THAT

Jointly identify opportunities to test integrations between any current cloud-based data applications and the current ad stack, creating optimization plans for both sets of technology around the highest value use cases

> ## "Intelligence is the ability to adapt to change"
>
> — Stephen Hawking

#5 – Analytics Everywhere

Acting on any of Principles #1 – #4 is going to mean quite a few changes to the way we work as marketers, but perhaps one of the most important is how we think about the role of analytics.

In a world where adding, counting and linking data is no longer enough to make sense of it, we all need to aspire to achieve a higher degree of analytical competency and comfort.

But the democratization of analytics isn't so much about getting really scary good at spreadsheets, learning SQL, or statistical modelling packages. Like so much of the above, it's in fact more difficult—it's a change in culture, behavior, and outlook. We need people to get comfortable asking questions of data, not just expecting the answers to pop out as a result of connecting together the right IDs.

What will likely facilitate this is the parallel democratization of data modeling and machine learning, through low code environments that will give rise to what Gartner referred to as the 'citizen data scientist'—non-technical business managers who are curious and eager to freely experiment with data. These platforms equip the teams that are closest to the problems with the ability to experiment and find their own solutions. This can lead to more insightful, innovative approaches much faster than if every model has to be built by someone with a PhD in neural networks.

Of course, arming every person in a marketing organization or agency with a drag and drop AI platform, and the freedom to hack toward predictions isn't without risk. This is why—even as democratized analytics begins to reshape how we plan media—SME-level technical craft skills will still be required to perform the necessary checks and balances on these tools, and we must ensure there aren't any unwanted biases or unfounded assumptions starting to creep in to the models that are being scaled. Be it low or high code, these new approaches will likely be necessary to relate different types of data to one another at scale—often without ever joining them together (e.g. **Federated Learning**). If granular data is certain to diminish in the wake of privacy laws and tech company policies, then an expansion of the role of analytical machines may represent our best hope to finding the cutting edge of aggregation.

At Essence we're starting with the basics—using years of structured, normalized media plan performance data, coupled with third-party reach curves and brand lift study results, to predictively plan media with models in a fraction of the time. This approach to analytics-enabled innovation started with a spreadsheet, grew with a model, scaled with technology, and can be standardized by empowering more teams to take advantage of it. The more we do it, the better the model gets, and this increasingly frees up the time of our planners to focus on higher value work with platform and publisher partners (see Principle #3 – The Power of Partnership).

Next steps for marketers

NOW

Think through opportunities for meta-analysis (e.g. across campaigns, disciplines, departments, lines of business) to identify opportunities for learning that sit outside of individual campaigns or programs

► **NEXT**

Review low code AI/ML tools and services and look for opportunities to pilot, experiment with, and test, which involve both SMEs and non-analytics practitioners

► **AFTER THAT**

Develop processes and standards for applying the models from successful tests to enterprise tools, incorporating explainable AI into enterprise approaches

Summary

Over the past decade, the third-party cookie has been one of the primary means through which marketers have been able to optimize how their audiences experience their brands on the open web. Over that same period, we were treated to an array of partner offerings that those third-party cookies enabled. They helped us target new audiences based on their interests, and they helped us understand what happened after they saw our ads.

Despite this, it's hard to conclude that ending support for third-party cookies in Chrome precipitates an 'identity crisis'.

As we've illustrated, there are large parts of the web from which third-party cookies have been embargoed for years, and they have never worked in mobile apps. As more people spent time in these environments, third-party cookies became less welcome.

Despite their ubiquity, it's also true that they've never been particularly reliable. Although identity graph offerings factor in cookies, their models seek to assign them to persistent and so-called person-level IDs, based on the likelihood that they are linked. In addition, the last two years have seen the emergence of identity consortia, which bring small cohorts of big ad tech players together in an effort to adopt new and more reliable user IDs for the open web.

There is plenty at stake for the ad tech industry when it comes to solving the identity conundrum. However for marketers, is this actually just a small data problem? Are we still trying to learn an awful

lot about a relatively small amount of all the things that happen in consumers' lives? Furthermore, are we doing so in a way that places an unnerving amount of emphasis on things like observed browsing behavior, view-through attribution, and other data points which require a high degree of inference to derive meaning?

Even if that's true, analyzing log files, device graphs, and other bits of digital data 'exhaust' material has elevated our collective analytical craft to a level seldom seen in marketing at the turn of the last decade.

Now, we need to find the courage to focus those abilities on a larger target that encompasses a broader and more varied dataset. While doing so, we need to pause and align on codes of ethics for data, for our teams and our partners, to move beyond the notion of compliance and toward doing the right thing. Additionally, as we develop these new models, we need to place an emphasis on explainability, not only for regulators but also for our wider organizations to empower and inspire them with new knowledge and possibilities.

Therefore, the only things facing an identity crisis in 2020 might be our marketing practices themselves, and even the idea of 'identity' in a marketing context. The only crisis to avoid in that case will be one of our own confidence, in acknowledging and leaning into new approaches, and learning to speak the new language of marketing data.

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