



The End of the Cookie

**Marketers, get ready. The digital tracking code
you've used for decades is about to bite the dust.**

mediassociates
BETTER THINKING

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64%

of marketers admit they have little understanding of what will happen when digital cookies fade away.



Dear Marketer: You're about to face disruption

The cookie is ending.

CMOs, VPs of marketing and other executives who think this is just a digital-news alert should pay attention, because this little bit of tech is a linchpin to how most of your marketing now works. Everything from digital personalization to retargeting (likely one of the top performers in your advertising) to marketing analytics is about to be disrupted by a tiny snippet of fading code.

This whitepaper explores how digital cookies were born as a shopping cart UX feature, how they were evolved (and some say were warped) by marketers, and why most cookies will go away. We'll explain the technology in clear terms. And then we'll explore the three key strategies of **personalization**, **automation** and **analytics** you will need to set up to thrive in the post-cookie world of marketing.

Specifically, the third-party cookie, a little bit of code that helps marketers follow individuals across websites and serve tailored advertising, is being phased out by Google by 2022. This is huge news indeed: People online need web browsers to get around, and the biggest web browser of all — Chrome — is shutting down the consumer-targeting marketing party. Already as of this writing in January 2021, Apple Safari and Firefox, the web browsers that control about one-third of online sessions, have limited third-party cookies. Google Chrome will bring digital marketing further into the dark.

Ever visit a website to plan a vacation, leave, and suddenly start seeing ads for the Bahamas everywhere? Yes, much of that will end. In some ways, this may feel good for consumers who want more privacy and less frantic targeting. But for marketers, it's a very, very big deal.

Before we go further:

Let's define the ingredients

Digital terms get tossed around in executive meetings, but to understand the problem facing your marketing team, we'll need to get specific.

Don't sweat. Most of this is just little bits of code stored in different places with different uses.

Cookie

This is a piece of code saved on your local computer by your browser software. It allows websites to recognize you as unique from other users. First-party cookies are codes a website uses to recognize you on that site. Third-party cookies — those being blocked soon — track you in-between sites.

Pixel

Similar to a cookie, this is also a code, but instead of living on your computer it is stored on a website. Like a butler with a tray, a pixel serves the cookie to you. Pixels got their cute name because their code creates a 1x1 "pixel" or invisible dot on a web page to function. Most websites put pixels on different pages for different uses, like butlers serving cookies in different rooms.

Fingerprinting

Fingerprinting is a fancy word for a workaround to cookies to identify users, based on the sundry quirks of their Internet-connected devices. Every gadget has a set of unique characteristics, from screen size to fonts, that can be discerned to recognize an individual by the device she or he is using.

MAIDs

Cookies don't work well in mobile. Instead, MAIDs are "Mobile Advertising IDs," digits assigned by Apple or Android to each phone. MAIDs are going away soon, too. Apple's MAID is IDFA, "Identifier for Advertisers," and will be the first mobile ID phased out affecting 45% of U.S. mobile users. Everything from geo-targeting consumers to mobile analytics will be affected.

Persistent ID

All the technology above is really trying one thing: to create a "persistent ID" to recognize an individual consumer. This empowers everything from making websites work to personalizing advertising to measuring marketing ROAS.



What cookies do when they work

Websites work better when they recognize users.

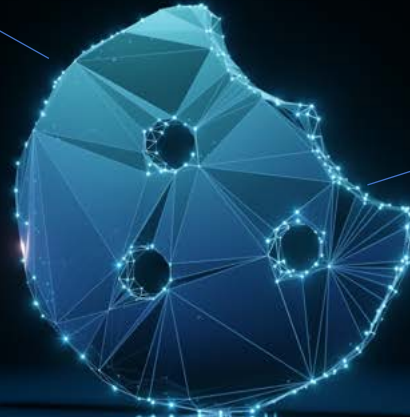
- > Website sign-ins are automatic.
- > Online shopping carts remember what consumers put in them.
- > Online forms are automatically completed.

Advertising works better when it recognizes individuals.

- > Ad messaging is matched to consumer personal interests.
- > Frequency of advertising is limited.
- > Once someone buys, the ads can stop.

Marketers measure better when they recognize respondents.

- > Users who are served advertising are matched to website sessions.
- > Cookies support analysis of performance from media channel to creative to offer.
- > They help map everything from conversion paths to ROAS (return on ad spend).



Why cookies were created ... and why they're ending



The original problem

When the web was created there was no way to identify users or remember them. This created a big challenge for websites that wanted to offer shopping or financial services. Without identifying a user, a shopping cart would empty each time you left, and an online bank would not know whether to let you in.



The well-meaning genius

In 1994, Lou Montulli had the idea to use “magic cookies” in web communications to solve the shopping cart problem. His goal initially was just to make individual websites work better. A friendly genius, Montulli also helped invent one of the first web browsers, and yes, the animated GIF!



The intruding marketers

Cookies were not designed for advertising, but marketers soon learned they could stitch together the little codes from many websites to get a better view of individual users. Soon, digital systems were learning and remembering consumer preferences compiled from all the websites they visited. Digital targeting was born.



The privacy overload

Digital ad personalization offered relevant advertising and subsidized free online content. However, consumer concerns about privacy and personal tracking rose amid several scandals in the late 2010s. Europe and California led initiatives to give consumers more control over their data. Facebook, Apple and Google began taking action.

Current cookie problems

What began as a tool to make web user-experience simpler has now run into challenges. In sum, marketers have overloaded the tracking system.



Privacy rules

Cookies that connect user data across websites are in essence distributing personal data — and this is against the new rules set by Europe's GDPR and California's CCPA that require consumers have control over their information and how it is used.

Platform competition

Related to the privacy issue, so-called “cookie matching” also means companies that never had contact with an individual can learn things about that user. This creates competitive friction among publishers and platforms. Online publishers get 50%-60% of their revenue from their audience data, and cookies pull that value away.

Performance lags

Annoyingly, all those “pixels” that serve cookies like butlers are beginning to add up. Today, behind every website are scores of marketers trying to learn about you. Some websites have as many as 100 different pixel codes firing when you download a web page, creating slow load times and a poor user experience.

A timeline of the cookie crumble

In response to these issues, web browsers that make online surfing possible are pushing cookies away. This issue has been baking for a while, starting with a post on blog.Chromium.org in May 2019 calling for browsers to improve safeguards for user privacy.

2020 was the year when cookie controversy caught fire.



2020

Prior to 2020, the web browsers Safari and Firefox already blocked third-party cookies among 33% of web users. In January 2020, Google posted it would phase out third-party cookies within 2 years.

2021

In 2021, the ad industry began racing for answers. Numerous players from the digital IAB association to the top programmatic platform The Trade Desk to Google itself began talking solutions. None are final.

2022

In January, not only will Google Chrome block third-party cookies, but Apple will phase out its MAID identifier (known as "IDFA") for mobile. The holistic view of an individual across all the Internet will end.



One more reason to kill cookies: Platform profits

The most charitable view of the cookie collapse is all this is happening due to a concern for consumer privacy and website load speeds. With the end of third-party cookies, and soon mobile IDs as well, the Internet will become totally anonymous for users as they surf from site to site ... protecting privacy for all.

Or will it?

Actually there is a huge business battle forcing the death of the cookie as well. The largest platforms of the Internet, Google, Facebook, and Amazon, are “walled gardens” that can recognize individuals clearly. Google users typically are logged in via their Gmail address and have given the platform vast information on their interests from online searches; Google owns YouTube and a “GDN” Google Display Network that serves ads on hundreds of thousands of websites. Amazon has data on many if not most of your online purchases. And Facebook ... well then.

You see where this is going. As cookies that provide panoptic visibility across the entire Internet fade away, Google, Amazon and Facebook will still have targeted advertising capabilities *within their own platforms* that are even more valuable to marketers. Each can identify users, because their users log in. Marketers will still be able to launch personal advertising, but within these major platforms— not easily across all of them.

We spoke to a dozen industry experts at Oracle, The Trade Desk, the IAB, and other digital platforms and all expressed three forecasts:

> *Walled-garden platforms will be more valuable since they can recognize their users.*

> *Premium publisher content also will be sought, as “context” of content replaces data targeting.*

> *This increasing concentration will make digital advertising more expensive and hurt ROAS.*



2 out of every 3 digital ad dollars in the U.S. already go to Google, Facebook or Amazon. Post cookie, this concentration will increase.



The 2 big risks for all marketers

There is nothing wrong with advertising in Facebook, Google or Amazon. We find them top performers for many of our media clients. However, overall marketers have two hurdles ahead as cookies fade.

Personalization

Advertising works based on a simple formula: High personalization and low media costs. Personalization is when a message is matched to consumer interests and intent, and cookies have provided a cost-efficient way to reach people “in market” for your service. Marketers must find new ways to personalize efficiently to maintain ROAS. Odds are high that Google, Facebook and Amazon, as powerful they are, alone won’t meet your goals.

Measurement

Your overall marketing may include non-digital elements such as TV, out of home, public relations and experiential events ... but in 2021, the web is how many consumers respond. Websites tend to be 5x more cost efficient in lead capture vs. call centers as well. With third-party cookies in decline, matching respondents to digital (or offline media) impressions becomes vastly more challenging.



Cookie-less puzzle 1: How will you personalize?

At heart, cookies empowered three systems that allowed marketers to personalize advertising:

- > *Identifying an individual user.*
- > *Automating how you communicate to that user.*
- > *Adding additional data on that user's needs and value to you to personalize your message.*

Each of these will have to be replaced. Now is also a good time to rethink whether you have each of these three systems wired correctly.

Personalization is often missed as a goal among marketers focused on “targeting” users like hunting animals without thinking end-to-end about how messaging is matched to interests. There is a reason why digital retargeting often works so well in media plans; retargeting a user who visits your website is brute-force personalization tied to a real data signal. The question now is, how do you do this better?

Identifying an individual user will require finding a new solution for “Universal ID.” There are several initiatives in the works, and none have achieved prominence yet. We explore early contenders in the next section.

Automating how you communicate to users will most likely still involve digital advertising across media touchpoints such as digital banner ads, native advertising, online video, and emerging connected TV systems. The conduits of messaging are unlikely to change.

Adding additional data on each user's needs will mean testing new data systems. Options include *zero-party data* in which users opt-in to giving you their profile; *first-party data* in which you infer things about an individual from her direct interactions with you; *second-party data*, which is when you purchase someone else's first-party data; or *third-party data*, which is information aggregated from other sources.



**Identifying individuals,
automating communication,
adding additional data on
their needs — these are
your real goals.**





Targeting will become fragmented, ad frequency will become slippery, and matching ads to responses will be difficult.



Cookie-less puzzle 2: How will you measure?

The second huge risk for marketers is how cookies' demise will break their measurement systems. Imagine this scenario: You serve an ad to Samantha Smith on a news website. Until now, while you would not know her name, you could recognize her as the same person if she visited your website later.

But once third-party cookies are gone, you cannot connect that ad impression to the “view through” metric of her visit later that day. Now, you’re serving digital ads with little idea of which customers are responding.

Reach and frequency measures will also be affected. “Frequency capping” is a basic digital marketing maneuver to ensure you don’t oversaturate an individual with scores of ads on the same day. But absent the ability to track who is served ads, you may overspend on digital marketing. Imagine spending \$1 million to find half of it wasted on impression overload!

Yes, there are emerging solutions. For example, The Trade Desk, a programmatic platform, is deploying person- and household-level “identity graphs” that stitch together online event data and statistics to monitor frequency...

But overall: Targeting will become fragmented. Ad frequency controls will become slippery. Matching individuals to their sequence of behaviors across your entire “marketing funnel” of response paths will be more difficult.

These may sound like digital tactical issues, but like the legend of the missing horseshoe that led to the horse messenger not delivering a message that led to a kingdom losing an entire battle, when the digital analytics that rely on trails of cookies disappear, the problems will cascade.

When the cookie crumbles, much of your marketing analytics will go dark.

Industry highlights: Some who will miss cookies the most



Higher ed

Colleges and universities competing for new students already face challenges. The number of applications generated per student have quintupled in the past 20 years, reducing marketing efficiency; emerging online programs increased competition; and COVID-19 reduced demand in 2020. The American Council on Education estimates enrollment will fall 15% in the 2020-21 academic year. Cookies are instrumental in higher-ed marketing analytics and are about to falter.



Health care

In the United States in 2020, hospitals lost on the order of \$50 billion per month due to declines in service-line revenue driven by COVID-19. Healthcare systems have been late to the digital game and just recently have expanded into paid social, digital display, online video. Third-party cookies have been vital in picking up signals of consumer or healthcare professional interest. Unless health marketers find new data, a return to blunt mass advertising will make ROI decline.



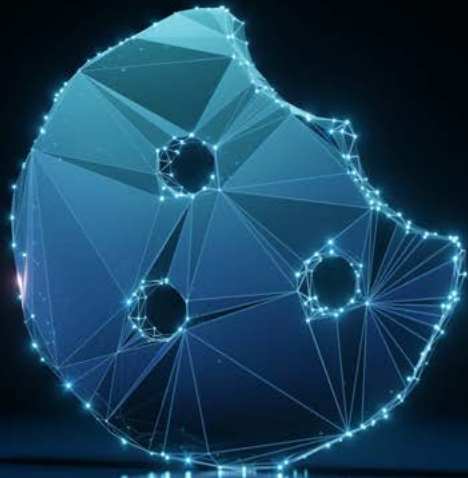
B2B

Business-to-business marketing is all about lead generation, and a core strategy is to reach executive decision makers “up-stream” in their exploration cycles. Approximately 70% of so-called “B2B” decisions are made before a prospect fills out a lead form. Third-party cookie data has been instrumental in teasing out signals of early intent as decision-makers gather their own information on industry solutions. B2B marketers need persistent IDs to reach prospects, and cookies were it.



DTC

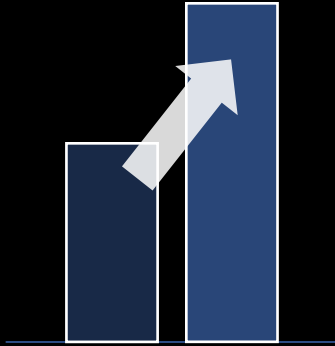
E-commerce leapt ahead in 2020 as a fortunate recipient of U.S. consumers spending more time at home amid pandemic. The challenge for so-called “direct-to-consumer” or DTC companies has been how to drive respondents cost-effectively beyond Facebook, Instagram or Google advertising. DTC marketers must build brands while maintaining response efficiency, and third-party cookies have been instrumental in finding mid- and upper-funnel media that performs.



Evolving solutions

There is no single answer to the declining cookie. But numerous industry players from the IAB to LiveRamp and The Trade Desk are rapidly developing solutions.

Here's your preview.



U.S. mobile advertising will reach \$96 billion in 2021. As users flock to smaller devices, new identity systems must be implemented.



New ways to personalize

1st Party Data

So-called first-party data, the data you gather from direct interactions with potential customers, isn't going away. We expect this to become increasingly important to engage qualified users who have shown interest. The pros are users have already "opted in" with your organization and you can append other data sources to refine these learnings, such as data management platform (DMP) analysis. The con is this audience pool may be limited in size. First-party cookies also face disruption; in the Safari browser, what used to be a 2-year expiration window has been collapsed to 7 days.

Identity graph

Programmatic advertising faces a huge challenge in the cookie-less world, given its vast reliance on third-party cookies. These "demand side platform" systems will rely more on people-based IDs or "identity graphs." The pros of these emerging systems is they collate observations across websites to make accurate assumptions about user interests; the challenge is similar as those raised against cookies regarding privacy, and some may go against privacy rules in Europe's GDPR or California's CCPA in terms of control and transparency.

Context

One obvious solution to the cookie decline is going back to contextual targeting. This was how all of media once worked: if a marketer wished to reach business leaders, she took out ads in The Wall Street Journal, knowing the "context" of the material was an audience proxy. Some examples: Comscore is launching a new Predictive Audiences initiative that will target consumers based on content consumption; Oracle's Grapeshot reaches audiences based on content, breaking news and trending themes; and Cross Pixel cleverly targets audiences based on URLs, not cookies, picking up search signals.

ID5

ID5 is working on a new industry standard to provide a persistent identifier for consumers across websites. ID5 has traction among some leading platforms such as Lotame, is now active on more than 100,000 websites, and the "hope" in the industry is its solution may soon merge with the Trade Desk's emerging Unified ID 2.0 to achieve industry scale.

The Trade Desk's Unified ID 2.0

Like the rise of the railroad when designers realized trains would run better if all the tracks had the same gauge width, the ad industry is racing to develop a new standard for ID.

One of the most promising ideas is to use hashed emails as identifiers. Most people have one core personal email address, such as a Gmail account, and platforms are considering building a partnership network where this email becomes the root fingerprint of the user.

The Trade Desk, one of the top programmatic advertising platforms, is leading a “Unified ID 2.0” to create a common identification ID across web platforms associated with the user’s root email address. The Trade Desk is trying to build momentum with a strict set of rules, including the email will be hashed (encrypted); consumers will have clear preferences to opt-in (and opt-out); it will be a free system for the entire ecosystem; and a strong code of conduct monitored by an external governing panel.

The question, of course, is will this one solution scale? One industry commentator told us many publishers may not want to come aboard if they think their own “walled garden” content is already valuable. And consumers have proved reluctant to log in to specific websites.



We are really just going to propose a new set of standards that we'll all ultimately implement together.



— Dave Pickles, CTO and co-founder, The Trade Desk



New ways to automate

PMP deals

Publishers will still have valuable first-party data; The Wall Street Journal, for instance, knows a lot about its subscribers who give it demographic information and job titles when they sign up. So how can you streamline using these outlets without the time-wasting bother of negotiating directly with each website and platform? One solution is to streamline orders using Private Marketplace Deals (PMPs), in which inventory is still managed by hands-on-keys teams programmatically. In essence, automated digital buying systems that run programmatic advertising can set up PMP deals to secure inventory for specific partners — from streaming audio to premium news sites.

Go premium

There are numerous specialist media “premium platforms” that, while smaller than Google, Amazon or Facebook, provide integrated targeting for specific audiences. In health care, Epocrates provides unique communications against hard-to-reach healthcare professionals. In business, Bloomberg provides a range of touchpoints to reach specific types of employees and executives. Such specialist platforms must be vetted carefully — and managed to ensure they don’t dilute their premium content with long-tail lower quality inventory extensions — but can automate optimizations within their own ecosystems.



PMP deals automate digital buying against premium inventory.





We provide a people-based ecosystem ... in a future-proof way.



— *Christian Carlsson, Global Solutions Architect, LiveRamp*



LiveRamp ‘Authenticated Traffic’ is a contender

Another intriguing solution comes from LiveRamp, with its “Authenticated Traffic Solution” or ATS. In perhaps the industry’s boldest move, this automates the “opt-in” challenge by scouring websites for consumers who have already authenticated themselves and translating this into a PII-secure unique ID.

LiveRamp has a history of innovation in matching personal data IDs across ecosystems. In the past, LiveRamp would help marketers “onramp” their offline data such as customer lists into the digital world by matching it to Demand Side Platforms. While this matching was valuable, the “cookie matches” in several stages made accuracy of ad personalization not perfect.

LiveRamp is now creating a new form of ID to try to solve the end-of-cookies problem. If a person exists in an advertiser CRM database and also has authenticated on a publisher site, it becomes a one-to-one 100% match. LiveRamp claims this “people-based ID” will work better than cookies.

The wrinkle has always been how to get consumers to opt-in to such a system. LiveRamp circumvents this by working with web partners to automatically ingest any user information submitted on the website, such as an email in a form, and matching that to a private, hashed unique identifier. In simple terms, LiveRamp will not know the name of John Henry who visited the site; but its ID can match that anonymous user as the same person from ad exposure across all devices to website conversion.

If this works, LiveRamp will have solved the walled garden problem - in that this people-centric ID system can be used across websites. Measurement systems would also improve, LiveRamp claims, by illuminating which individuals within the audience were exposed to the ad; which ads they clicked on; and exactly when they came into a store or website to make a purchase.

A great theory. Again, the question: Will it scale?

Marketers may FloC to a Google answer

What's a FLoC?

Google, who really made the cookie crumble, in late January announced its own solution to future cookie-less targeting. Called FLoC for “Federated Learning of Cohorts,” it’s a data-targeting service that lumps online people together into groups with similar interests. Google claims these cohorts of commonality are nearly as effective as cookie-based digital targeting. In essence, Google uses its vast data on what people browse to group them — to provide interest targeting without getting into individual behaviors.

Will cohorts work?

It’s a good theory, since marketers have long known that birds of a feather flock (and buy similar things) together, and Google’s early internal tests show its FLoC collective targeting works better than random clustering. However, some in the advertising community have expressed skepticism; as one commentator told Ad Exchanger in January, “Who spends money randomly?!” Google plans to launch its FLoC targeting in March for early testing and expand to all marketers in Q2 2021.



Google, who made the cookie crumble, has proposed its own solution.



Enhanced analytics: A clear path forward

If our story has taught one lesson, it is that finding an individual and personalizing advertising is the best path to marketing performance. The demise of the cookie in the end may be beneficial to both consumers and marketers, as both sides of the equation reconsider their value exchange.

Consumers have a lot to gain from personalized advertising. Beyond just products and services they may find useful, advertising is the quiet “funder” of most of their free online content. Consider, Facebook now has 2.7 billion monthly active users and annual revenue of \$71 billion; it could cease all advertising if each user just paid \$2.20 a month to subscribe. But consumers are reluctant to pay for any content online, so advertisers foot the Facebook bill. For this to continue, consumers need ads that work.

Marketers will gain something too as they are forced to look beyond cookie-based metrics to understand what they are really doing. Digital metrics often lead marketers astray; too much emphasis is placed on last-touch “clicks” or even “view-through” metrics, when the path customers take to your organization is far more complex.

We recommend that marketers track emerging ID formats and set up ongoing “Learning Models” to test new data, personalization and automation systems. One of the clearest paths forward is enhanced analytics that use marketing mix modeling-type statistical analysis to evaluate the “full funnel” from ad impression to purchase.

As the cookie dies, it’s time to look above and beyond the digital click.



Marketers will gain something as they are forced to look beyond cookie-based metrics.



The marketer's cookie-less checklist

As we bid farewell to the third-party cookie, here are the three things your team must do.

Watch

The industry has not settled on a single solution yet. Whether it is LiveRamp or The Trade Desk or ID5, one player will likely emerge as the industry's unique ID leader. Keep watching to see which one breaks out first.

Learn

Remember, this isn't really about cookies. Personalization is the goal. Now is the time to set up a Learning Model to constantly test new data signals. From search to URLs to context to first-party data, there are many paths to success.

Measure

Many platforms such as Google, Facebook and Amazon will continue to perform. But now it's on you to stitch the silos together. Work with analytics teams or partners to set up more robust statistical analysis of what works.



About the authors



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About Mediassociates

Mediassociates is a media planning, media buying and analytics agency focused on precision branding, predictive modeling and marketing performance. The agency was founded in 1996 and now provides advertising planning and implementation across all channels and platforms, such as TV, OTT, OLV, radio, streaming audio, print, out of home, programmatic, digital high-impact, social and search. We see media analytics as a strategic platform for business growth.

For more information, please visit www.mediassociates.com.



Thank you, partners.

We'd like to thank our numerous professional partners and friends who contributed to the research of this whitepaper. In particular, the IAB, Oracle, The Trade Desk, Tremor Video and Google were helpful.

LiveRamp provides videos on its proposed Authenticated Traffic Solution at liveramp.com.

Cookie-Script.com is an excellent resource for understanding how to comply with GDPR and CCPA.

Invoca.com has numerous blog posts insightful about the cookie-less future.

AdvertisingIdentity.guide is a lucid online map of future ID evolutions.

And to our clients who raised these questions in the first place, thank you. You know who you are.

