

Google Stealthily Enables ‘Super-Profiles’

Company Combines Personal Information with Data from Third-Party Sites and Apps without Opt-In Consent

Executive Summary

On June 28, 2016, Google quietly changed its policies and settings, telling its users it was offering “new features” that would grant them greater control over their own information. The change attracted little attention; many users simply agreed and moved on.

But this change had a profound effect on the amount of information that Google holds on virtually everyone who comes into contact with the internet, and made it nearly impossible for users to escape the company’s tracking of their activities.

The change allowed Google, for the first time, to combine data gathered from cookies that track browsing behavior on nearly 80% of websites¹ with the trove of personal information it holds from its own user accounts. Previously, Google had maintained two separate profiles on each user: one combining data from its own services, such as Gmail, Google Search, YouTube, Android devices, and other proprietary services; the other that tracked user activity on sites that use Doubleclick Advertising and Google Analytics cookies.

The 2016 policy change allowed Google to join these two vast repositories of data into “super-profiles” of internet users, realizing the fears advanced by privacy advocates when Google acquired Doubleclick in 2007.² In fact, those concerns have been eclipsed by Google's current policy, which not only allows Google to include data from Doubleclick cookies that track users’ browsing across the web, but also information from *any* app or site that uses Google Services, including Google Analytics, embedded YouTube video, and potentially third-party Android apps that use Google’s programming interfaces.

In other words, Google’s stealth advertising profiles now include data from any website that uses Google Analytics,³ hosts YouTube videos, displays ads served by Doubleclick or AdSense — the overwhelming majority of sites in use in the world today. And it can add to that data it gets from a user’s Android phone even when they are not actively using the web, including their location, activity, even local weather conditions.

The move represented a step change in the amount of information that Google has on file about billions of people in order to sell to advertisers. It also made it virtually impossible for Google users to avoid being tracked by Google: The company claims that over 90% of Internet users worldwide

¹ A 2015 survey of the top one million web domains found Google trackers on nearly eight out of ten sites: <http://ijoc.org/index.php/ijoc/article/view/3646/1503>

² Statement of Marc Rotenberg, Executive Director Electronic Privacy Information Center; Committee on Senate Judiciary Subcommittee on Antitrust, Competition Policy and Consumer Rights; September 27, 2007

³ Estimated at 30-50 million web pages: <http://marketingland.com/as-google-analytics-turns-10-we-ask-how-many-websites-use-it-151892>

come into contact with its Google Display Network.⁴ And it made it harder for other advertising providers to compete, further entrenching Google's monopoly.

The 2016 change represented the culmination of Google's decade-long effort to build increasingly detailed profiles of people's lives. Since it began providing "context-based" searches based on the contents of users' emails and search requests, Google has built its business around tailoring ads to user information.

In 2009, following its controversial acquisition of Doubleclick, Google introduced "interest-based" ads that profiled users according to their browsing activity. At the time, Google kept those browsing profiles separate from user account data, as a concession to privacy advocates. The company amended its privacy policy in 2012 to state that it would not combine data from Doubleclick with users' accounts without their opt-in consent.⁵

The 2016 policy change reneged on this commitment and unified Google's discrete pools of user data, granting the company greater insight into users' behaviors and preferences without adequately explaining the consequences of that data collection to users. The change may have violated the terms of a 2011 consent decree by failing to clearly and prominently disclose the sources of third-party data sharing and by moving from an 'opt-in' to an 'opt-out' consent model.

Key Findings

- One June 28, 2016, Google changed its privacy policy to allow it to combine information gathered from third party sites and apps with personal information that users share with Google.
- Google removed a clause requiring it to obtain opt-in consent before combining data from its advertising network with personal information. The default is now opt-out consent.
- Current policy allows Google to combine personal information with data gathered from sites or apps that use *any* Google services, including Doubleclick, AdSense, Google Analytics, embedded YouTube video, and Android APIs managed through Google Play Services.
- Google does not state the full scope of data collection on users' ads settings pages or on its main privacy policy page. The company only offers a definition of its "partners" that collect user data in a pop-up footnote.
- By combining Doubleclick data with personal account information, Google is now able to create 'super-profiles' that capture nearly all of a user's web activity, realizing the fears that privacy advocates raised when Google acquired Doubleclick.
- Google may have violated a 2011 consent decree by failing to clearly and prominently disclose the sources of third-party data sharing and by moving from an opt-in to an opt-out consent model. Further information on the consent decree is set out in the attachment to this paper.
- Combining data gathered through its advertising network and other web services with account data allows Google to track users across devices. Tracking "cross-device conversions" has become a critical component of the company's advertising business.

⁴ https://support.google.com/adwords/answer/2404191?hl=en&ref_topic=3121944

⁵ https://www.google.com/intl/en_US/policies/privacy/archive/20111020-20120301/

Privacy Policy Change and ‘Ads Personalization’

On June 28, 2016, Google quietly changed its policy governing the use of customer data.⁶ It removed the restriction on combining user data gathered via its Doubleclick advertising service with information gleaned from users’ activity on Google products, and asserted its right to combine data from third party apps or sites with personal information associated with users’ accounts.

We may combine personal information from one service with information, including personal information, from other Google services – for example to make it easier to share things with people you know. We will not combine DoubleClick cookie information with personally identifiable information unless we have your opt-in consent. Depending on your account settings, your activity on other sites and apps may be associated with your personal information in order to improve Google's services and the ads delivered by Google.

Changes to Google’s privacy policy, June 2016

All websites that display ads through Google contain the Doubleclick tracking cookie, a tiny text file that follows users across the internet.⁷ When a user visits a site that serves ads using Google technology, the site places a cookie on her browser.⁸ The cookie identifies the browser and keeps track of the sites that it visits, the ads that it sees, and how the user interacts with webpages.⁹ The 2016 privacy policy change allowed Google to store this browsing data in signed-in users’ accounts, creating a persistent record of browsing data that can be triangulated with a user’s personal information.¹⁰

Now, when a user signs on to any Google service, such as Gmail, YouTube, or Search, Google associates the browsing history stored in the Doubleclick tracking cookie with her profile.¹¹ Once a user signs in to a google service, she remains signed in on that browser until she affirmatively signs out. As long as the user remains signed in, Google continues to collect browsing data in real time. When a signed-in user visits a site with Google tracking technology, it joins a user identifier with the site’s own traffic data.¹²

In 2018, Google made a play for even deeper insight into users’ browsing activity by automatically signing users into the Chrome browser when they signed into their Google accounts.¹³ The move would allow Google to collect browsing data even from users who block Doubleclick cookies or otherwise attempt to opt-out of third party data collection.

⁶ <https://www.google.com/intl/en/policies/privacy/archive/20160325-20160628/>

⁷ <https://support.google.com/adsense/answer/48182>

⁸ <https://support.google.com/adsense/answer/2839090?hl=en>

⁹ <https://support.google.com/adsense/answer/2839090?hl=en>

¹⁰ <https://support.google.com/adsense/answer/2839090>

¹¹ <https://support.google.com/adsense/answer/2839090?hl=en>

¹² <https://www.beanstalkim.com/blog/2017/04/update-remarketing-google-analytics/>

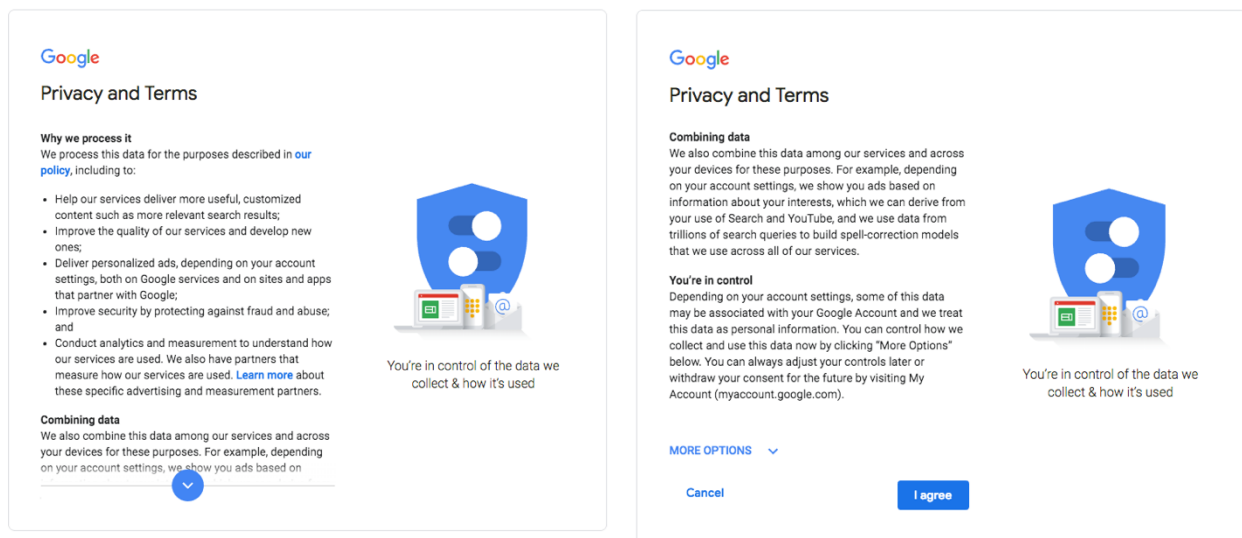
¹³ <https://techcrunch.com/2018/09/24/security-experts-say-chrome-69s-forced-login-feature-violates-user-privacy/>

Google Abandons its Opt-In Consent Model

Google's 2016 privacy policy removed any mention of obtaining users' opt-in consent for data consolidation. To this day, Google's privacy policy makes no mention of opt-in consent for data collection, and the company's ads settings page suggests that the company has moved to an opt-out privacy regime.¹⁴

Google accounts now default to gathering and combining user data from all Google services, advertisers, and third-party apps and sites. When the 2016 policy change was first introduced, Google required users opening new accounts to accept a notification explaining that Google collects and combines this information before proceeding with account creation. Until 2018, Google did not provide users with an option to opt out immediately upon creating a new account.

Following revisions to the company's privacy policy to comply with the European General Data Protection Regulation, Google began offering the option to opt out of data collection and combination upon creating a new account.¹⁵ Users can only access this option by clicking a link for "more options" in a pop-up window detailing Google's data collection practices. Google does not otherwise prompt users to review their privacy settings upon account creation, and maximally-invasive data collection is turned on by default.



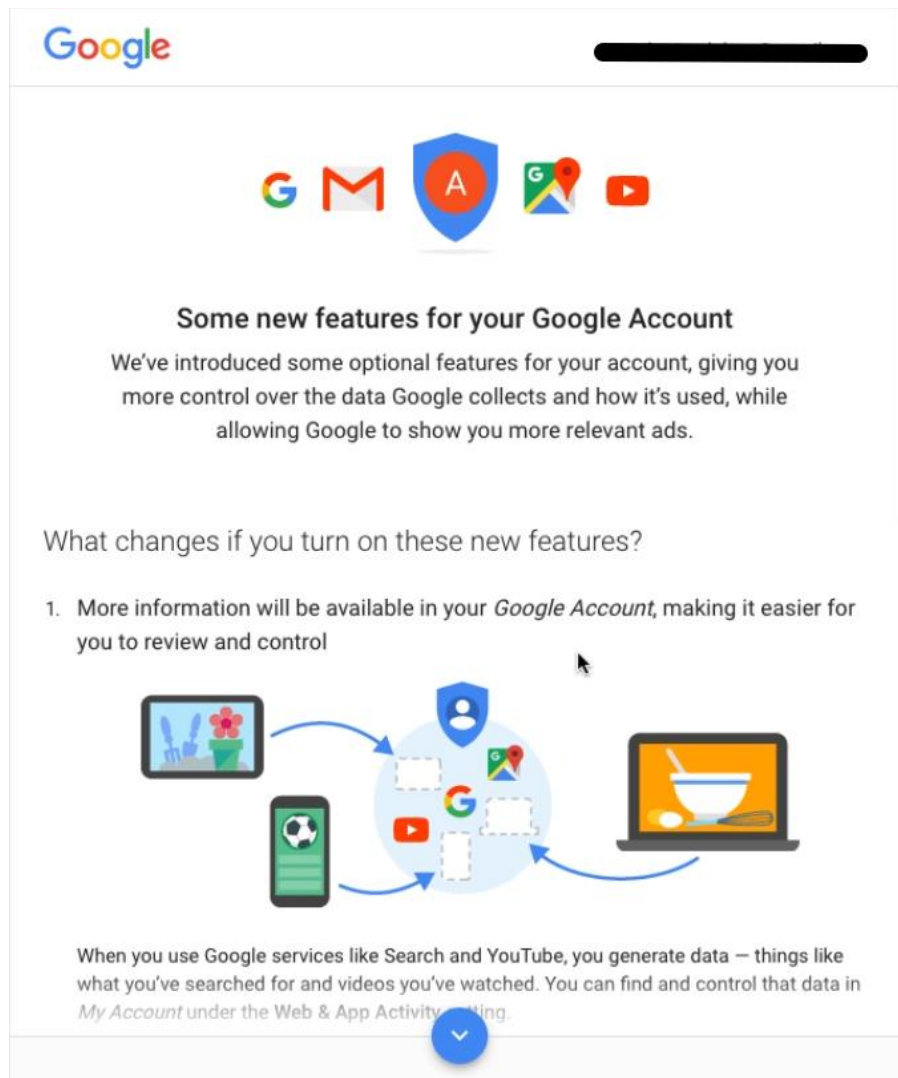
In order to create a new Google account, users must agree to a privacy policy that states that Google will collect data from third parties and combine it with their personal information.

¹⁴ <https://policies.google.com/privacy>, <https://support.google.com/ads/answer/2662922?hl=en-GB>

¹⁵ <https://accounts.google.com/signup/v2/webcreateaccount?continue=https%3A%2F%2Faccounts.google.com%2FManageAccount&flowName=GlifWebSignIn&flowEntry=SignUp>

Google also stretched the definition of opt-in consent for existing users. Existing users received a misleading notification in the Gmail web interface advertising “new features for your Google Account.” The notification obscured the fact that Google had changed its privacy policy and that these new features would dramatically expand the dossiers that the firm maintains on its users.

The notification does not make immediately clear how to opt out of the broader data collection. It ends with “Choose I AGREE to turn these features on or MORE OPTIONS for more choices.”



With this change, this setting may also include browsing data from Chrome and activity from sites and apps that partner with Google, including those that show ads from Google.

2. Google will use this information to make ads across the web more relevant for you



In *My Account*, the **Ads Personalization** setting currently lets Google use data in your account to tailor ads that appear in Google products.

With this change, this setting will also let Google use data in your account to improve the relevance of ads on websites and apps that partner with Google.

These settings apply across all of your signed-in devices and across all Google services. You can change them any time in *My Account*. [Learn more](#) about these features, including how they affect shared devices.

What's still the same?

- Google does not sell your personal information to anyone
- You control the types of information we collect and use at *My Account* (myaccount.google.com)

Choose **I AGREE** to turn these features on or **MORE OPTIONS** for more choices.



[MORE OPTIONS](#)

I AGREE

Google required users to select one of these options to get to their mailboxes. Users who selected “I AGREE,” consented to combining tracking data from third party sites and apps with personal account data, without learning more about the scope of the data collection.

Users who selected “More Options” received yet another notification, presenting them with three choices: “No changes – continue to Gmail,”¹⁶ “No changes – review key privacy settings more fully,” or “Yes, I’m in – turn on these new features.”

¹⁶ Earlier iterations of this notification read, “No changes – continue on your way.”



Choose what's right for you


Need more info first?
[Learn more about these features](#)

☐ **No changes – continue to Gmail**
We won't change anything and your Google experience, including the ads you see, will remain the same

☐ **No changes – review key privacy settings more fully**
Take the *Privacy Checkup* to review key settings, including settings for ads

☐ **Yes, I'm in – turn on these new features**
You can change your mind anytime at *My Account*

[BACK](#)



[DONE](#)

Users who clicked on “No changes – continue to Gmail” opted out of the new policy – but their underlying ads settings did not clearly indicate that combining third party data with personal information was turned off. Instead, a setting called “Ads based on your interests on sites beyond google.com” was set to neither on nor off, with a prompt that read, “please set your ads preference.”

Control your Google ads

You can control the ads that are delivered to you based on anonymous information by editing these settings. These ads will more likely be useful and relevant to you and your Google services, such as search.

New features that give you even more control

We've introduced some optional features for your Google Account that give you even more visibility and control of your data, while allowing Google to show you more relevant ads. More control of your data means even more control of the ads Google shows.

[LEARN MORE](#)



Please set your ads preference

Ads based on your interests can be switched on or off.

Ads based on your interests on websites beyond google.com

OFF ☐ ON ☒

With Ads based on your interests ON

- You can mute some ads that you don't want to see
- You may see ads related to factors such as your interests and previous visits to other websites (remarketing)
- The ads may be based on anonymous demographic details such as age and gender
- The ads may be based on your general location (such as city or state) or the current page or app you are looking at

With Ads based on your interests OFF

- You will still see ads
- The ads will be less relevant to you
- You will be opted-out of interest based ads that are part of the Google Display Network and Google ads that are based on visits to advertiser websites (remarketing)
- The ads may be based on your general location (such as city or state) or the current page or app you are looking at

Google Search Ads based on your interests

☒ ON

With Ads based on your interests ON

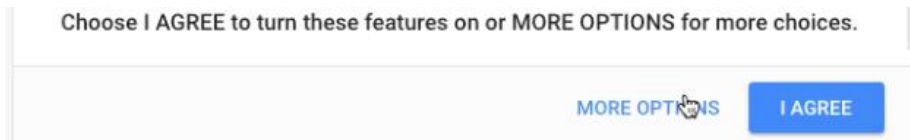
- Ads will be more relevant by considering your prior searches and you may see fewer ads
- Ads you see are more likely to be about products and services you have previously searched for
- Ads may be more appropriate for your age and gender based on anonymous demographic details

With Ads based on your interests OFF

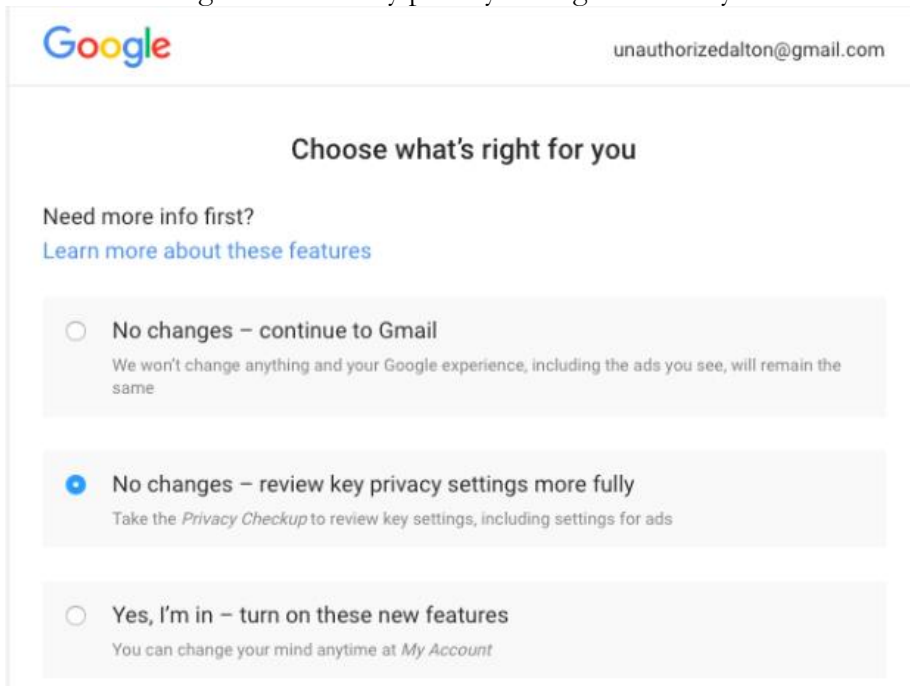
- You will still see ads
- The ads will be less relevant to you
- An advertiser can't factor into their ads your previous visits to their website (search remarketing)

Users who selected “No changes – review key privacy settings more fully” were led through at least ten clicks before they reach their ads personalization page. At minimum, they had to:

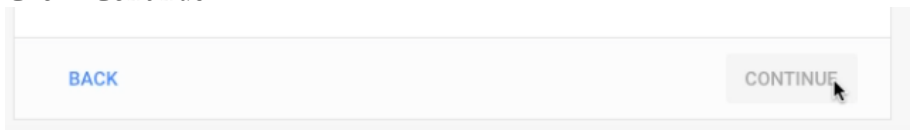
1. Click “More options” on the initial “New features for your Google Account” notification



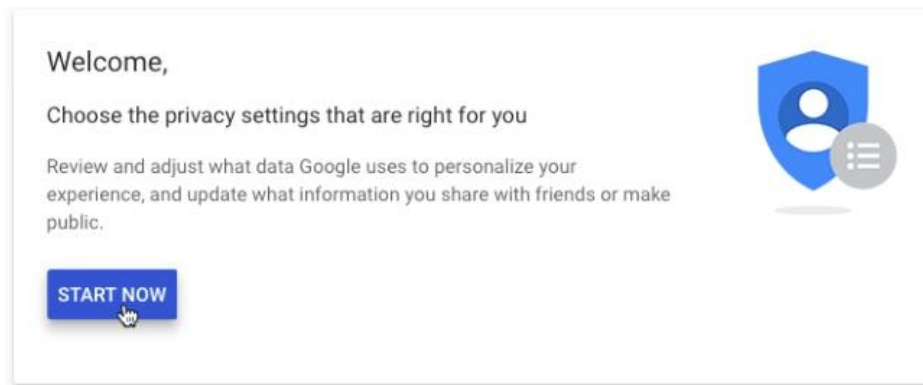
2. Click “No changes – review key privacy settings more fully”



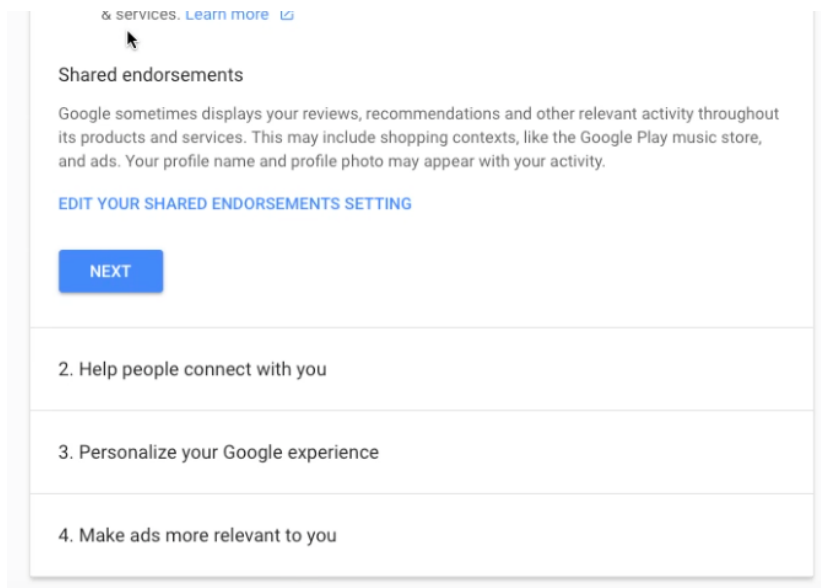
3. Click “Continue”



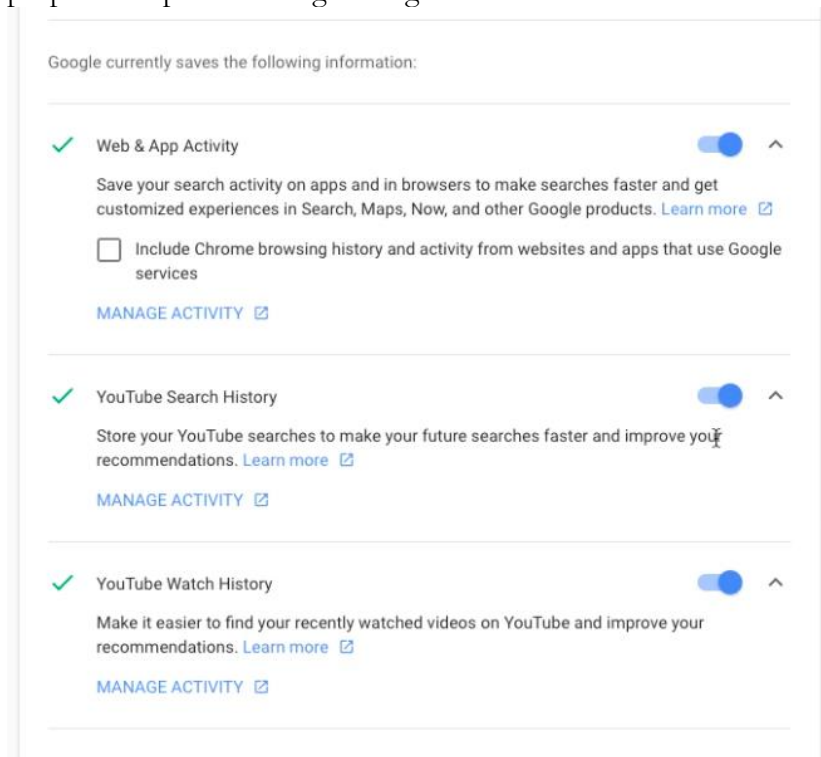
4. Click “Start Now”



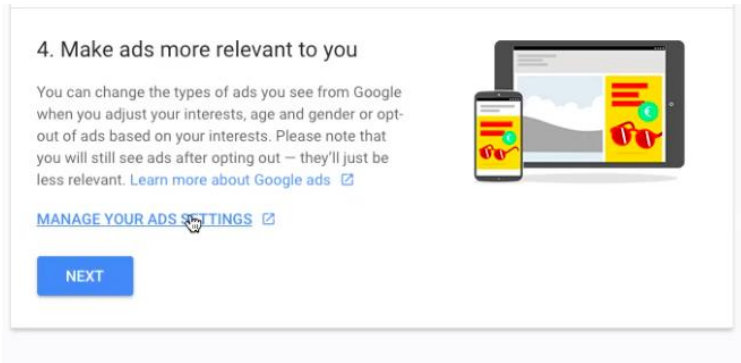
5. At minimum, click “Next” three times, once each on “Choose what Google+ profile information you share with others”, “Help people connect with you”, and “Personalize your Google experience.”



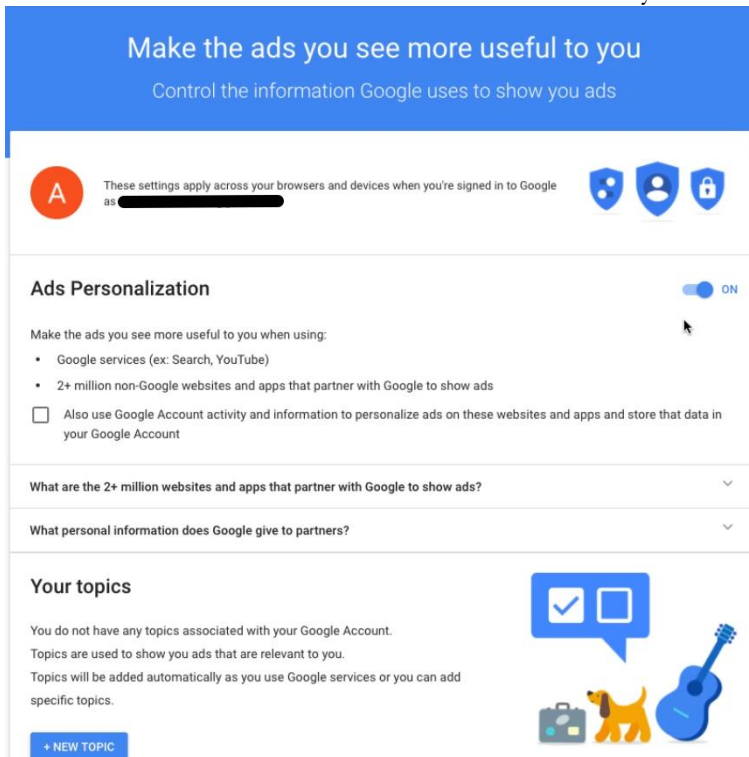
6. Google required an additional six clicks to opt out of the company's tracking of search and browsing activity on the web. Critically, this tracking is entirely separate from Google's ads settings – Google continues to track users who opted out of ads but not tracking for the purpose of "personalizing" Google's other services.



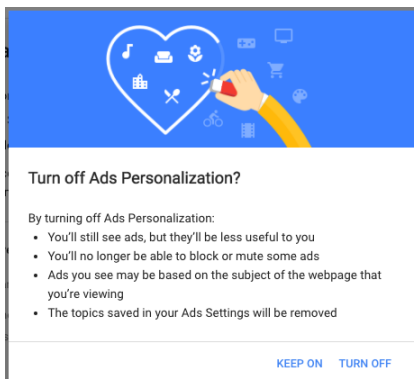
7. Click “Manage your ads settings.”



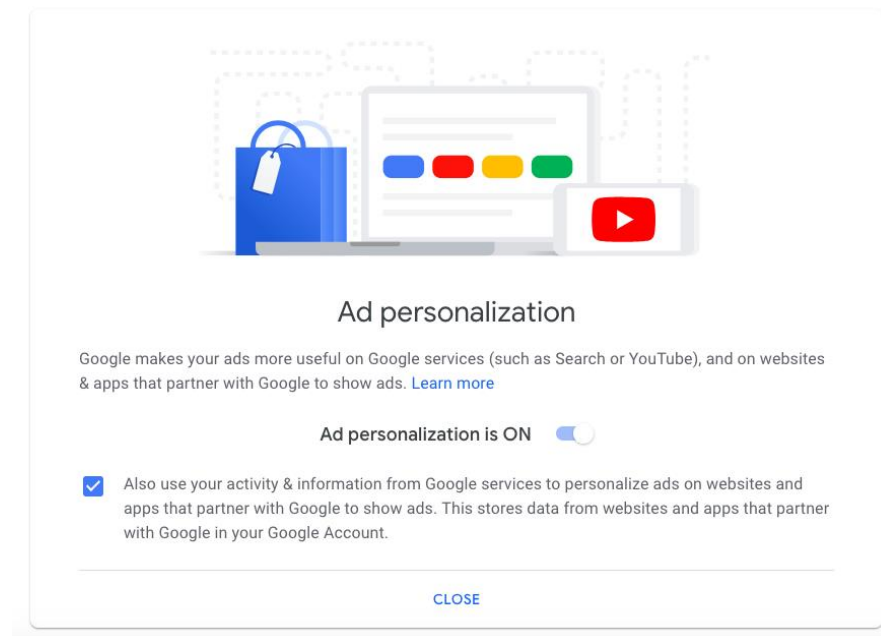
- Turn “Ads Personalization” off. It was turned on by default in the initial view.



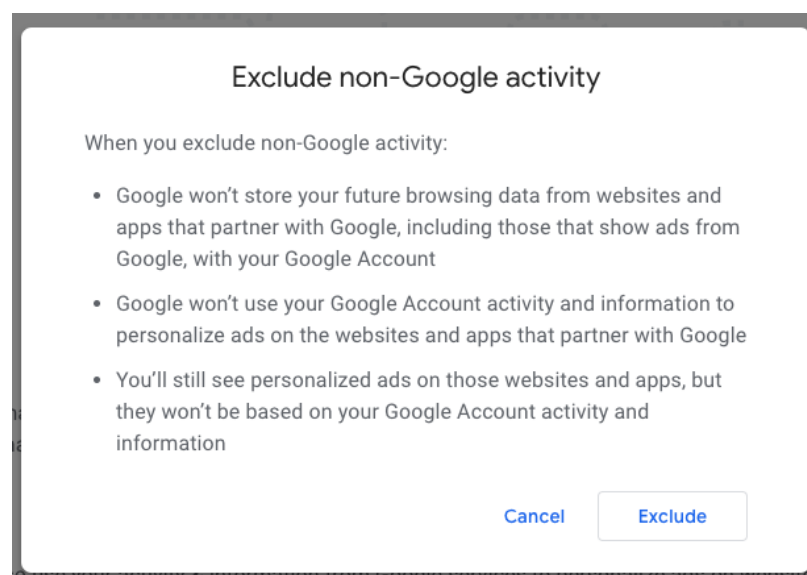
- Click “Turn off”



Earlier versions of Google's ads settings page allowed users to control tracking on third party sites and ads based on Google account activity separately. As of 2016, these two settings are intertwined. When a user with Ads Personalization switched off turns the setting back on, Google automatically checks the box that allows the company to store data from third party sites and apps in the user's account and use this combined data for ads personalization.



To disable the combination of third party tracking data with personal account information, users had to uncheck this box and click "Exclude" on the following prompt.



It is likely that many users – especially those who use desktop email clients - never saw Google's notification about its new privacy policy, and never had the opportunity to opt out of Google's

expanded data collection. Those who did not receive the notification had to manually navigate to the Ads Personalization settings to opt out of the new data collection policy.¹⁷

Hidden Information about Data Sources

Google's notifications and ads personalization settings obscure the fact that sites that serve Google ads are only a fraction of the sites that send users' browsing data back to Google. The ads personalization page only makes a vague reference to collecting data from "websites and apps that partner with Google."¹⁸ The ads settings page mentions the "2+ million websites that partner with Google to show ads," but makes no mention of data collection from other sites.¹⁹

A footnote linked from Google's privacy policy (not directly accessible from the ads settings page) offers deeper insight – falling short of total transparency – into the breadth of Google's data-gathering operation. It states in full:

“This activity might come from your use of Google products like Chrome Sync or from your visits to sites and apps that partner with Google. Many websites and apps partner with Google to improve their content and services. For example, a website might use our advertising services (like AdSense) or analytics tools (like Google Analytics), or it might embed other content (such as videos from YouTube). These products share information about your activity with Google and, depending on [your account settings](#) and the products in use (for instance, when a partner uses Google Analytics in conjunction with our advertising services), this data may be associated with your personal information.”²⁰

Although Google's notification to users about its new privacy settings emphasized data sharing with sites that serve ads, this definition buried in its privacy policy makes clear that Google also gleans user data from sites and apps that use *any* Google service. This omission is hardly trivial; Google Analytics is present on more than 13 million internet domains.²¹

Google services that entitle the company to user data may also include the Application Programming Interfaces (APIs) that Google distributes to Android app developers through Google Play Services, which are governed by the same privacy policy as Google's web properties.²² Even third-party apps (those not developed by Google itself) can contribute to the user data that Google collects, combines with personal information, and uses for advertising purposes. For example, a 2015 study demonstrated that the Facebook app for Android, which uses Google APIs, sends users' email, name, username, and location to Google. The Facebook iOS app did not send any data to Apple.²³

¹⁷ <http://deliddedtech.com/2016/07/11/google-adds-new-options-regarding-data-collection-privacy-for-ads/>

¹⁸ <https://adssettings.google.com/u/0/authenticated>, <https://google.com/ads/preferences>

¹⁹ <https://google.com/ads/preferences>

²⁰ <https://policies.google.com/privacy#footnote-other-sites>, <https://www.google.com/policies/privacy/example/your-activity-on-other-sites-and-apps.html> (2016 version)

²¹ <https://www.datanyze.com/market-share/web-analytics>

²² https://developers.google.com/terms/#a_google_privacy_policies

²³ <http://techscience.org/a/2015103001/index.php#Demonstration>

Google's Prior Statements Regarding Doubleclick Data and User Privacy

The combination of user data from Google accounts with data from third party sites and apps realized the fears advanced by consumer advocates when Google acquired Doubleclick, the technology it uses to serve ads to its Display Network, in 2008. Until 2016, Google stated that the company would solicit user consent before combining Doubleclick data with information that Google deems ‘personally identifiable.’²⁴ The 2016 privacy policy change removed this clause, allowing Google to create ‘super-profiles’ that track users everywhere.

Doubleclick tracks user data using “cookies,” or small text files that it stores on users’ browsers. Google places a Doubleclick cookie on an individual’s browser when she interacts with the Doubleclick server, usually by visiting a page that shows Doubleclick ads.²⁵ Cookies can communicate with the server about how many times a user has seen a particular ad, but they can also track users across the web to determine their particular interests – so Doubleclick will serve ads about sports to people who spend a lot of time on the ESPN and NFL websites, and ads about clothing to people who browse fashion blogs and department store websites, even when they’re viewing unrelated content.²⁶

During the acquisition, Google faced opposition from consumer advocates and scrutiny from the Federal Trade Commission. While Google’s competitors focused on the unfair market advantage that the acquisition would create, consumer advocates focused on privacy concerns raised by combining Doubleclick and Google’s data resources. In a letter, the New York State Consumer Protection Board said, “[t]he combination of Doubleclick’s Internet surfing history generated through consumers’ pattern of clicking on specific advertisements, coupled with Google’s database of consumers’ past searches, will result in the creation of ‘super-profiles,’ which will make up the world’s single largest repository of both personally and non-personally identifiable information.”²⁷

Google sought to reassure the the FTC, Congress, and the general public that the acquisition would not sacrifice user privacy. Google’s General Counsel, Nicole Wong, said that the merged company would give users “real choices that are transparent to them” regarding data collection.²⁸ In a statement before Senate Judiciary Subcommittee on Antitrust, Competition Policy, and Consumer rights, Chief Legal Officer David Drummond said, "DoubleClick is already extremely protective of privacy. In fact, it does not own and has very limited rights to use any of the data it processes on behalf of its publisher and advertiser clients."²⁹ In response to questioning from the committee,

²⁴ <https://www.google.com/policies/privacy/archive/20111020-20120301/>. Google defines personally-identifiable information as “information which you provide to us which personally identifies you, such as your name, email address or billing information, or other data which can be reasonably linked to such information by Google, such as information we associate with your Google account.” (<https://www.google.com/intl/en/policies/privacy/key-terms/#toc-terms-info>) As Jones-Harbour points out in her dissent and more recent scholarly work argues, this is only a subset of the information that could be used to identify a user. IP addresses, computer battery status, and even the position of a browser window on the screen can be used to identify an individual.

(http://randomwalker.info/publications/OpenWPM_1_million_site_tracking_measurement.pdf)

²⁵ <https://support.google.com/adsense/answer/2839090?hl=en>

²⁶ <https://www.theguardian.com/technology/2012/apr/23/DoubleClick-tracking-trackers-cookies-web-monitoring>

²⁷ Statement of Marc Rotenberg, Executive Director Electronic Privacy Information Center; Committee on Senate Judiciary Subcommittee on Antitrust, Competition Policy and Consumer Rights; September 27, 2007

²⁸ <http://articles.latimes.com/2007/apr/17/business/ft-privacy17>

²⁹ <https://www.judiciary.senate.gov/imo/media/doc/Drummond%20Testimony%2009272007.pdf>

Drummond reiterated that DoubleClick’s “data is owned by the customers – publishers and advertisers – and DoubleClick or Google can’t do anything with it.”³⁰

The FTC declined to intervene in the privacy issue, arguing that “the Commission lack[s] legal authority to require conditions to this merger that do not relate to antitrust,” opting instead to promote a set of voluntary self-regulation principles for companies that collect user data.³¹ These principles have induced little change in company behavior.

Regarding the competitive advantage granted to Google by combining its user data with data obtained through Doubleclick tracking cookies, the Commission simply pointed out that under its contracts at the time, Doubleclick had limited access to user data.

In a dissenting statement, Commissioner Pamela Jones-Harbour argued that the combination of Doubleclick and Google user data raised both antitrust and privacy concerns within the purview of the commission:

“The parties claim to place a high value on protecting consumer privacy. In various fora, both public and private, senior corporate officials have offered assurances that the combined firm will not use consumer data inappropriately. But charged as I am with protecting the interests of consumers, I am uncomfortable accepting the merging parties’ nonbinding representations at face value. The truth is, we really do not know what Google/DoubleClick can or will do with its trove of information about consumers’ Internet habits. The merger creates a firm with vast knowledge of consumer preferences, subject to very little accountability.”³²

Google proceeded to build tandem user profiles based on account data and browsing data, aided by information that Google does not deem “personally identifying,” such as partial IP addresses.³³ In 2015, Google earned more than \$15 billion in advertising revenue from ads displayed on sites and apps using Doubleclick technology.³⁴

Now, Google can combine Doubleclick data with other browsing activity as well as personal information, making it harder for users to preserve their privacy and harder for other advertisers to compete.

³⁰ <https://www.judiciary.senate.gov/imo/media/doc/Drummond%20Testimony%2009272007.pdf>

³¹ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googledc-commstmt.pdf

³² https://www.ftc.gov/sites/default/files/documents/public_statements/statement-matter-google/DoubleClick/071220harbour_0.pdf

³³ Commissioner Jones-Harbour’s dissent predicted this approach; pointing out that an IP address from a session cookie could be matched with an IP address from a longer-term account cookie to associate an individual with server log records.

³⁴ Calculated from quarterly earnings from Google Network Members’ websites. Available at:

https://abc.xyz/investor/news/earnings/2015/Q1_google_earnings/,

https://abc.xyz/investor/news/earnings/2015/Q2_google_earnings/,

https://abc.xyz/investor/news/earnings/2015/Q3_google_earnings/,

https://abc.xyz/investor/news/earnings/2015/Q4_google_earnings/index.html

2010 Consent Decree

Google's quiet rollout of its mid-2016 privacy policy, ads settings language that obscures the scope of the company's data gathering, and the move from an opt-in to an opt-out model for the handling of tracking cookie data may all violate a 2010 consent decree that the FTC reached with Google after an earlier invasion of users' privacy.

Commissioner Jones-Harbour's view that Google must be formally bound to standards for user privacy was vindicated in 2010 when the firm came under FTC scrutiny again for automatically collecting and combining user data from Gmail, Picasa, Google Reader, and other services in the rollout of a short-lived social network called Google Buzz.

The Commission found Google to be in violation of the FTC Act for misrepresenting what it planned to do with the user data that it collected through Gmail and for failing to obtain consent to use the data in a new way.³⁵ The FTC also found that Google's actions violated the US-EU Safe Harbor Framework, which requires that entities that collect personal information provide users with notice about how the data will be used and the ability to opt out easily.

Following an investigation, the FTC issued a consent decree ordering Google to truthfully represent the way it gathers and uses information, obtain affirmative consent separate from the privacy policy for user participation in new data sharing, and develop internal procedures for mitigating adverse effects of future privacy changes.³⁶

Consumer advocates at the Electronic Privacy Information Center (EPIC) accused Google of violating this consent decree in 2012, when the firm announced that it would combine data obtained from users' search histories with personal information gathered from other Google services. In a complaint, EPIC argued that by combining data across services, Google "misrepresent[ed] the extent to which it maintains and protects privacy and confidentiality of covered information," and that the firm "fail[ed] to obtain affirmative consent from users prior to sharing their information with third parties."³⁷ Further information on the EPIC complaint is set out in the attachment to this paper.

Specifically, the consent decree ordered that:

[R]espondent, prior to any new or additional sharing by respondent of the Google user's identified information with any third party, that: 1) is a change from stated sharing practices in effect at the time respondent collected such information, and 2) results from any change, addition, or enhancement to a product or service by respondent, in or affecting commerce, shall:

A. Separate and apart from any final "end user license agreement," "privacy policy," "terms of use" page, or similar document, clearly and prominently disclose: (1) that the Google user's information will be disclosed to one or more third parties, (2) the identity or specific categories of such third parties, and (3) the purpose(s) for respondent's sharing; and

³⁵ <https://www.ftc.gov/sites/default/files/documents/cases/2011/10/111024googlebuzzcmpt.pdf>

³⁶ <https://www.ftc.gov/sites/default/files/documents/cases/2011/03/110330googlebuzzagreement.pdf>

³⁷ <https://epic.org/privacy/ftc/google/EPIC-Complaint-Final.pdf>

B. Obtain express affirmative consent from the Google user to such sharing.³⁸

The 2012 EPIC complaint focused on Google's failure to allow users to opt out of combining their search data with other information. The 2016 policy change gave users more freedom to provide consent, but the notification that existing users received did not "clearly and prominently disclose...the identity of specific categories" of third party sites and apps with which Google now shares data.

This would not be the first time that Google has faced legal scrutiny for being too vague about its privacy policies. A 2013 official study by the Dutch Data Protection Authority argued:

Because Google does not provide specific enough information about the types of data it collects from its various services and about the types of data it combines for the purposes of personalising requested services, product development, displaying targeted ads and website analytics, Google is acting in breach of the provisions of Articles 33 and 34 of the Wbp³⁹

³⁸ <https://www.ftc.gov/sites/default/files/documents/cases/2011/03/110330googlebuzzagreeorder.pdf>

³⁹ https://autoriteitpersoonsgegevens.nl/sites/default/files/downloads/mijn_privacy/en_rap_2013-google-privacypolicy.pdf

Motivations: Context-Aware Apps and Advertisements

The 2016 privacy policy allows Google to collect user data from sites and apps even when they are not actively sending data to their devices. This “context data” – all of the information surrounding users’ structured interactions with the internet – is the future of computing and online advertising.⁴⁰

2012: Combining user data across Google Services makes Google Now possible

EIPC’s 2012 complaint targeted a privacy policy change that allowed Google to combine users’ search histories with personal information obtained from other Google services.⁴¹ Google announced the change two months before it took effect to widespread outcry. Privacy advocates and commentators condemned Google for its failure to allow users to opt out of this unprecedented invasion of privacy.⁴²

We may combine personal information from one service with information, including personal information, from other Google services – for example to make it easier to share things with people you know. We will not combine DoubleClick cookie information with personally identifiable information unless we have your opt-in consent.

Relevant changes to Google’s privacy policy, March 2012

Perhaps as a concession to concerned parties, Google maintained its commitment to keep Doubleclick data separate from personal information in the new privacy policy. An article published in *The Guardian* six weeks after the new policy took effect bluntly stated that “Your browsing behavior will never be linked to your Gmail account.”⁴³

In the fracas over user privacy and advertising, many commenters overlooked the role of the privacy policy change in a new service: Google Now (which has since been replaced by Google Assistant).

The 2012 privacy policy change paved the way for the debut of the Google Now app three months later.⁴⁴ Like its descendant, Google Assistant, Google Now combined data from users’ activity across Google products with “contextual” information such as location and activity to provide content tailored to users’ commutes, travel plans, activities, and interests. By combining data from search histories with email content and other data, the app “aim[ed] to seek out information for users before they even think of typing it into the search box.”⁴⁵

Google Now made visible how much the search giant can learn about its users:

⁴⁰ <http://kvadrevu.com/thinking-about-context-aware-ads/> , <http://qz.com/205689/context-this-is-what-comes-after-search/>

⁴¹ https://www.washingtonpost.com/business/technology/faq-googles-new-privacy-policy/2012/01/24/gIARw8GOQ_story.html

⁴² <http://outfront.blogs.cnn.com/2012/03/01/googles-new-privacy-policy-accept-or-decline-and-be-banished/>, https://www.washingtonpost.com/business/technology/google-tracks-consumers-across-products-users-cant-opt-out/2012/01/24/gIARgJHOQ_story.html

⁴³ <https://www.theguardian.com/technology/2012/apr/23/DoubleClick-tracking-trackers-cookies-web-monitoring>

⁴⁴ <https://www.yahoo.com/news/what-android-users-should-know-about-the-jelly-bean-4-1-update.html?ref=gs>

⁴⁵ <http://time.com/google-now/>

The part that clearly disturbs some people about Google Now is the data collection that is involved in making it work: the tracking of your web searches, your calendar appointments, your location via GPS, the photos you have posted, the flights you are preparing to take, and so on. There's no question that this is invasive.⁴⁶

Google Now users had the ability to modify their privacy settings to customize the amount of data that they share with the app, but “but denying it access to your life robs it of its purpose.”⁴⁷ The relationship between the app's usefulness and the volume of user data that it could access allowed Google Now to function as a disincentive for restrictive privacy settings. Moreover, Google's post-March 2012 privacy settings allow it to combine this information for its own purposes behind the scenes, even if the user does not request to view the aggregated information through the Google Now app.

Beyond incentivizing users to grant Google access to personal information, Google Now also became a source of information in itself by developing a detailed model of users' daily habits. “Context-aware” apps like Google Now help companies fill in the details of a user's day when she isn't actively browsing the web. “If a developer wants to know everything that a user is doing, [they] need to know the user's context and create a narrative of the user's day,” the product manager for Intel's context-sensing software said in 2010.⁴⁸

Gaining access to richer “context data” also motivated Google's acquisition of traffic and mapping company Waze in 2013⁴⁹ and home automation company Nest in 2014.⁵⁰ Both technologies allow the company to know more about how users live their lives, and to serve ads based on that data. Nest caused a minor controversy shortly after its acquisition by reneging on an earlier promise to keep its data separate from Google users profiles.⁵¹

2015 and 2016: Collecting context data from third party apps

In 2015, Google announced that it would open Google Now to 40 popular apps like Uber, AirBnB, and Spotify.⁵² While Google assured users that it would not share their personal context data with these third party apps, data does flow freely in the other direction. In order for third party app integrations to work, Google Now sucks in user data from linked apps – and it can use this data in any way that conforms with Google's privacy policy.⁵³

⁴⁶ <https://gigaom.com/2013/05/03/the-google-now-dilemma-yes-its-kind-of-creepy-but-its-also-incredibly-useful/>

⁴⁷ <http://www.telegraph.co.uk/technology/mobile-app-reviews/10032788/Google-Now-for-iOS-review-straddling-the-creepy-line.html>

⁴⁸ <http://www.intelfreepress.com/news/contextual-sensing-smartphone-learning/9467/>

⁴⁹ <https://techcrunch.com/2013/06/11/behind-the-maps-whats-in-a-waze-and-why-did-google-just-pay-a-billion-for-it/>

⁵⁰ <http://arstechnica.com/gadgets/2014/01/the-battle-for-the-home-why-nest-is-really-googles-new-smart-home-division/>

⁵¹ <http://www.techhive.com/article/2366987/just-kidding-says-nest-we-are-totally-sharing-your-data-with-google.html>

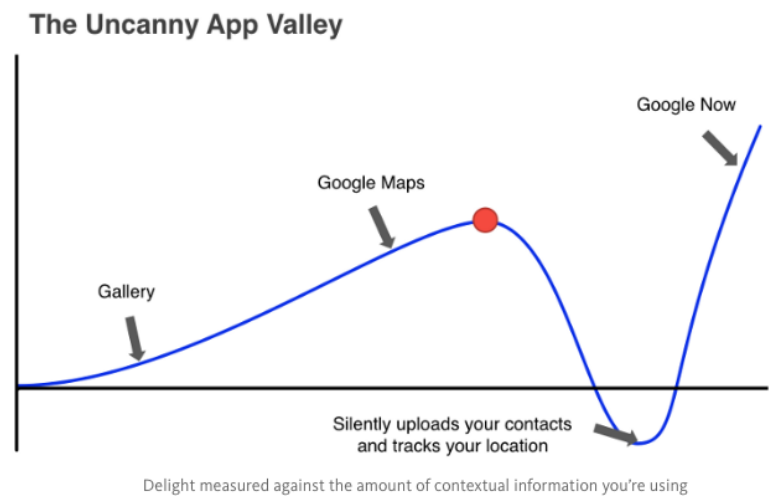
⁵² <https://search.googleblog.com/2015/01/google-app-update-get-now-cards-from.html>

⁵³ <http://www.csmonitor.com/Technology/2015/0130/Google-Now-powers-up-by-pulling-in-info-from-other-apps>, <http://blogs.wsj.com/digits/2015/01/30/google-now-will-suck-in-outside-app-data/>

The 2015 data sharing announcement already afforded Google the ability to gather user data from third party apps that entered into partnerships with Google Now, but the 2016 changes to the privacy policy give Google the freedom to go further, gathering data from third party apps that are only loosely tied to Google.

Two days after it changed its privacy policy governing data collection from third party apps and sites, Google rolled out the Awareness API for Android developers.⁵⁴ The API gathers a wide variety of context data, including the local time, specific location (including a description of the place type), detected physical activity, device state (such as whether the headphone jack is in use), nearby landmarks, and ambient conditions such as weather.

In a July 14th Medium article, an “Android Developer Advocate” employed by Google made the case for incorporating the API into “delightful, intelligent apps,” and coached developers on how to use context data without disturbing users.⁵⁵ He advocated for more data collecting on the service of greater responsiveness, suggesting that third party developers should maximize both data collection and “delight” in the mode of Google Now.



In 2016, Google introduced Google Assistant, which augmented the basic functionality

of Google Now with deeper artificial intelligence that drew upon past conversations and interactions with the software.⁵⁶ Like Google Now, Google Assistant pulls in data from the users' web and app activity and can be integrated with third party apps and services.⁵⁷ The software relies on broad data collection in order to tailor its responses to users, a practice that *Gizmodo* deemed "a privacy nightmare."⁵⁸

A Medium post by an Android developer advocate suggests that Google Now maximizes data collection and “delight.”

Unlike Google Now, Assistant is automatically integrated into some Google devices and services, and could be enabled without the user's knowledge. In February 2019, Google announced that voice interactions with Google Assistant would soon become available on the company's Nest Guard

⁵⁴ <http://technews.co/2016/06/30/google-unveils-new-awareness-api-to-help-developers-create-intelligent-and-context-aware-apps/>

⁵⁵ <https://medium.com/google-developers/using-the-awareness-api-for-android-a185b05e7254#.chackvav1>

⁵⁶ <https://www.cnet.com/how-to/the-difference-between-google-now-and-google-assistant/>

⁵⁷ https://support.google.com/assistant/answer/7126196?p=assistant_privacy&visit_id=1-636112016868512038-512077472&rd=2,

<https://support.google.com/googlehome/answer/7126338?co=GENIE.Platform%3DAndroid&hl=en>

⁵⁸ <https://gizmodo.com/googles-ai-plans-are-a-privacy-nightmare-1787413031>

home security device.⁵⁹ The company had not previously disclosed that the device had a microphone.⁶⁰

2016: "Closing the Loop" across devices

With an emphasis on voice interactions, Assistant seeks to provide a personalized experience across mobile phones, internet of things devices (like Google Home and Nest), and PCs. Identifying the same user across devices is essential to providing the "personalized experience" that Google seeks to create with Google Assistant. It is also essential to surgically precise ad targeting.

Associating browsing data with users' profiles allows Google to monitor users across devices. In



September 2016, less than three months after the privacy policy change that combined Doubleclick tracking cookies with personal profile information, Google announced a new set of services that allow advertisers to “close the loop” with cross-device remarketing.⁶¹ For example, Google can now determine which signed-in users saw an ad on her phone and purchased the advertised product on her desktop computer.⁶²

Previously, cookies (on computers) and Advertising IDs (on mobile devices) tracked user activity and built profiles for browsing behavior on each device, but these data stores were siloed off from one another. Google’s old privacy policy effectively forbade the company from associating a user’s activity on a smartphone with the same user’s activity on a desktop computer for advertising purposes. Under the new privacy policy, Google can associate user activity on any app or site using Google services with a user’s private account, unifying activity data across all of a user’s devices.⁶³

Until 2018, Google did not disclose that allowing the company to combine data from third party apps and sites with personal account data would allow the company to track users across their devices. Only after the company revised its policies to comply with the European General Data Protection Regulation did the company mention cross-device tracking in its ads settings. Even now, this language is only visible to users who elect to turn on ads personalization. Users who already have ads personalization turned on receive no information about cross-device tracking.

Two of Google’s advertising “innovations” announced in 2016 draw upon this new capability. One of these services, billed as “Cross-device remarketing for Google Display Network and Doubleclick

⁵⁹ <https://www.blog.google/products/assistant/nest-secure-google-assistant/>

⁶⁰ <https://www.csoonline.com/article/3336227/security/nest-secure-had-a-secret-microphone-can-now-be-a-google-assistant.html>

⁶¹ <https://adwords.googleblog.com/2016/09/New-Digital-Innovations-to-Close-the-Loop-for-Advertisers.html>

⁶² <https://techcrunch.com/2016/09/26/google-ads/>

⁶³ See “Google Stealthily Enables ‘Super-Profiles’” (proprietary memo), September 16, 2016.

Bid Manager,” allows advertisers to track users’ activity across all of the devices where they are signed in to Google and to serve ads even on machines where they have not looked at related content. In its blog, Google provided the example of a user who searches for Halloween costume ideas on her phone in the morning, and then sees ads for a costume shop on her desktop computer in the afternoon and her iPad at night.

The second relevant “innovation” allows Google to combine context data about a user’s location with information in a user’s advertising profile to drive customers to physical stores. This service combines background requests for mobile users’ physical location with information about the content on their screens to serve users ads with directions to the nearest store containing relevant products.

Even more disturbingly, Google then reports on the efficacy of these ads by tracking users’ movements and cross-referencing with Google Maps data to determine with “99% accuracy” whether or not a user visited the advertised store.⁶⁴ Google can provide its advertising customers with detailed information about the ‘paths’ that users take between viewing an ad and making a conversion, even if the store visit is captured by different device than the one that served the ad.⁶⁵

By combining browsing and web activity data into a user’s Google account, the company can determine which signed-in users saw an ad on one device and purchased the advertised product on another.⁶⁶ The company has also filed a patent application that could allow it to track signed-out users by passing a temporary tracking code between devices for the purposes of cross-device remarketing and conversion tracking.⁶⁷

In its blog, Google notes that “Only Google can deliver this level of precision and scale [of user data].” With its ‘super-profiles’ created by combining Doubleclick and Google Account data across devices, this is certainly true.

⁶⁴ <https://static.googleusercontent.com/media/www.google.com/en/us/adwords/start/marketing-goals/pdf/white-paper-bridging-the-customer-journey.pdf>

⁶⁵ <https://support.google.com/adwords/answer/6359141>, <https://www.Doubleclickbygoogle.com/articles/cross-device-conversion-metrics-come-DoubleClick/>

⁶⁶ <http://marketingland.com/google-cross-device-remarketing-launches-192819>

⁶⁷ <http://pdfaiw.uspto.gov/.aiw?Docid=20160234203>

Appendix: Timeline of Google's Interest-Based Advertising Policies



[Privacy Center](#)
[Privacy Overview](#)
[Privacy Policy](#)
[Privacy FAQ](#)
[Privacy Glossary](#)
[Privacy Blogs](#)
[Terms of Service](#)

Find on this site:

Search

Advertising and Privacy

We serve search text ads via [AdWords](#) on [google.com](#), and we also serve contextual and placement-targeted text and display ads on the [Google content network](#) ([AdSense](#)). To protect privacy, we follow three principles when we serve ads:

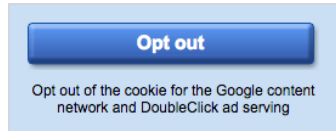
- **Transparency** – We provide detailed information about our advertising policies and practices.
- **Choice** – We offer an opt-out for advertising cookies.
- **No personally identifiable information** – We don't collect or serve ads based on personal information without your permission.

The [Google Privacy Policy](#) describes how we treat personal information in Google's products and services, including information provided when using or interacting with our advertising services. In addition, the [Privacy Policy for Google ads and the Google content network](#) describes our privacy practices relating to our advertising services.

Advertising Cookie Opt-out

Google uses cookies to serve more relevant ads. Learn more about [how Google uses advertising cookies](#).

Anyone may opt out of the DoubleClick cookie (for both the Google content network and DoubleClick ad serving) at any time by clicking the button above. In addition, Google allows third party advertisers to serve ads on the Google content network. Using a tool created by the [Network Advertising Initiative](#), you can [opt out](#) of several third party ad servers' and networks' cookies simultaneously. (Google also uses cookies for Google Analytics and conversion tracking. Read more about this in our [FAQ](#) below.)



Pre-2009: Google serves ads based on context, such as current web searches or active page content. Opting out disables the Doubleclick cookie.



Make the ads you see on the web more interesting

Many websites, such as news sites and blogs, partner with us to show ads on their sites. To see ads that are more related to your interests, edit the interest categories below, which are based on sites you have recently visited. [Learn more](#)

Your interests are associated with an advertising cookie that's stored in your browser. If you don't want us to store your interests, you can opt out below.

Watch our video:

[Ads Preferences explained](#)



Ads Preferences affect ads that Google shows on other websites.

Your interests	Below you can edit the interests that Google has associated with your cookie:												
	<table><thead><tr><th>Category</th><th></th></tr></thead><tbody><tr><td>Automotive</td><td>Remove</td></tr><tr><td>Computers & Electronics - Consumer Electronics - Personal Electronics</td><td>Remove</td></tr><tr><td>News & Current Events - Technology News</td><td>Remove</td></tr><tr><td>Sports - Golf</td><td>Remove</td></tr><tr><td>Travel - Air Travel</td><td>Remove</td></tr></tbody></table>	Category		Automotive	Remove	Computers & Electronics - Consumer Electronics - Personal Electronics	Remove	News & Current Events - Technology News	Remove	Sports - Golf	Remove	Travel - Air Travel	Remove
Category													
Automotive	Remove												
Computers & Electronics - Consumer Electronics - Personal Electronics	Remove												
News & Current Events - Technology News	Remove												
Sports - Golf	Remove												
Travel - Air Travel	Remove												
	Add interests Google does not associate sensitive interest categories with your ads preferences.												
Opt out	Opt out if you prefer ads not to be based on the interest categories above. Opt out When you opt out, Google disables this cookie and no longer associates interest categories with your browser.												

2009: Google launches interest-based advertising the Doubleclick network and introduces the “Ads Preferences” manager for editing or opting out of interest-based profiles.

Ads Preferences

▼ Ads on Search and Gmail

Blocked advertisers

Opt out

▶ Ads on the web

Ads on Search and Gmail

With personalized ads, we can improve your ad experience by showing you ads related to websites you visit, recent searches and clicks, or information from your Gmail inbox.

Google tries to show you the most relevant ads, whether or not you're opted in to seeing personalized ads. While we often match ads with specific pages (based on the page content or the search terms you enter), additional information helps us personalize your ads. [Learn more](#)

▶ [Watch a video about ads personalization](#)

Why these ads?

Find out why we showed you these ads when you searched for **microsoft**. Below, you can also choose to block specific advertisers' ads if you don't find them helpful.

▼ **Microsoft Support | microsoft-support.fixnow.us - microsoft-support.fixnow.us** - [Block this advertiser](#)

Search terms

This ad matches terms similar to the ones you entered.

▶ **Buy from Microsoft® Store - Official Site. Download Software.** - [www.microsoftstore.com/US_Online_Store](#) - [Block this advertiser](#)

▶ **Microsoft Tech Support - www.myphonesupport.com/Microsoft/** - [Block this advertiser](#)

▼ Ads on the web

Opt out

Many websites, such as news sites and blogs, partner with us to show ads to their visitors. To see ads that are more related to you and your interests, edit the categories below, which are based on sites you have recently visited. [Learn more](#)

Your interests are associated with an advertising cookie that's stored in your browser. If you don't want us to store your interests, you can opt out below. Your ads preferences only apply in this browser on this computer. They are reset if you delete your browser's cookies.

▶ [Watch a video: Ads Preferences on Google Display Network explained](#)

Your categories

Below you can review a summary of the interests that Google has associated with your cookie.

Computers & Electronics - Consumer Electronics - Gadgets & Portable Electronics - E-Book Readers [Remove](#)

Games - Computer & Video Games - Sports Games - Sports Management Games [Remove](#)

Games - Online Games [Remove](#)

News - Sports News [Remove](#)

Reference - Libraries & Museums - Museums [Remove](#)

Sports - Team Sports - American Football [Remove](#)

Sports - Team Sports - Soccer [Remove](#)

[Add or edit interests](#)

Your demographics

Below you can review the inferred demographics that Google has associated with your cookie. We infer your age and gender based on the websites you've visited.

Age: 25-34

Gender: Male

groovyPost.com [Remove](#)
[Remove](#)






2011: Google expands interest-based advertising to its own sites and products and introduces an updated Ads Preferences manager, allowing users to control Google activity profiles and Doubleclick cookie data separately



Ads Settings

Settings for Google ads

Ads enable free web services and content. These settings help control the types of Google ads you see.

	Ads on Google	Google ads across the web [?]
	<div> Search</div> <div> Gmail</div> <div> YouTube</div> <div> Maps</div>	<div></div> <div>Google ads across the web</div>
Gender	Female Visit your Google Profile	Female Based on your Google profile [?]
Age	18-24 Visit your Google Profile	18-24 Based on your Google profile [?]
Languages	N/A	English Edit Based on the websites you've visited
Interests	Unknown Edit From your previous activity on Google	Celebrities & Entertainment News, and 20 more Edit Based on the websites you've visited
Advertisers' campaigns you've blocked [?]	None From your blocking activity	N/A
Opt-out settings	Opt out of interest-based ads on Google	Opt out of interest-based Google ads across the web

2013: Google renames “Ads Preferences” to “Ads Settings” and redesigns the page to reflect the fact that user activity across all Google services are consolidated into a single profile. Doubleclick and Google profiles remain separate.

◦ Cookies and anonymous identifiers

We [and our partners](#) use various technologies to collect and store information when you visit a Google service, and this may include sending one or more [cookies](#) or [anonymous identifiers](#) to your device. We also use cookies and anonymous identifiers when you interact with services we offer to our partners, such as [advertising services](#) or Google features that may appear on other sites. [Our Google Analytics product helps businesses and site owners analyze the traffic to their websites and apps. When used in conjunction with our advertising services, such as those using the DoubleClick cookie, Google Analytics information is linked, using Google technology, with information about visits to multiple sites.](#)

2015: Google quietly updates its privacy policy to acknowledge that it combines Google Analytics information with Doubleclick cookie data, but keeps the Ads Settings page the same.



These settings apply across your browsers and devices when you're signed in to Google as [redacted]@gmail.com

Ads Settings works differently when you sign in to multiple accounts. [Learn more](#)



Ads Personalization

☒ ON

Make the ads you see more useful to you when using:

- Google services (ex: Search, YouTube)
- 2+ million non-Google websites and apps that partner with Google to show ads

☒ Also use Google Account activity and information to personalize ads on these websites and apps and store that data in your Google Account

What are the 2+ million websites and apps that partner with Google to show ads?



What personal information does Google give to partners?



Your topics

☐ Parenting

+ NEW TOPIC

WHERE DID THESE COME FROM?

Include additional activity?

By including additional activity, Google will:

- Include your browsing data from websites and apps that partner with Google, including those that show ads from Google, in your Google Account
- Store that data with other data in your Google Account based on your [Activity Controls](#) preferences
- Use Google Account activity to make ads across the web more relevant for you, improve the relevance of ads on those websites and apps, and improve Google services

This setting applies across all of your signed-in devices and across all Google services.

CANCEL INCLUDE



Turn on Ads Personalization?

This setting gives Google permission to use your Google Account activity and information on Google services (ex: Search, YouTube) as well as your browsing data from websites and apps that partner with Google to:

- Show you ads that are relevant to you
- Improve the relevance of ads on those websites and apps

Google will use that same data to personalize ads on those websites and apps. You can turn this option off by unchecking the box after Ads Personalization is turned on.

This setting applies across all of your signed-in devices and across all Google services.

KEEP OFF TURN ON

2016: Google rebrands “Ads Settings” as “Ads Personalization” and consolidates users’ Google profiles with tracking data from Doubleclick and other Google services. By default, accounts are set to track users across Google Services and all third party sites and apps that use Google for advertising, analytics, video, and more. Users have the option to exclude their Google account information from their advertising profiles, but cannot control when and where Google tracks them without disabling interest-based advertising entirely.



Ad personalization

Google makes your ads more useful on Google services (such as Search or YouTube), and on websites & apps that partner with Google to show ads. [Learn more](#)

Ad personalization is ON ☒

- ☒ Also use your activity & information from Google services to personalize ads on websites and apps that partner with Google to show ads. This stores data from websites and apps that partner with Google in your Google Account.

[CLOSE](#)



Turn on personalization

When you turn on ad personalization, you give Google permission to show you ads based on your activity on:

- Google services (such as Search or YouTube)
- Websites and apps that partner with Google to show ads

This info helps Google show ads that may be useful to you. You can choose to exclude info from websites and apps through "MORE OPTIONS."

Personalization applies to [redacted]@gmail.com across your devices. For example, if you visit a travel website on your home computer in the morning, you might see ads about train tickets on your phone later that day.

[Keep off](#)

[Turn on](#)

2018: To comply with the European General Data Protection Regulation, Google rewrites its privacy policy, pushes "privacy checkups," and allows new users to opt out of data collection at sign-up. For the first time, Google explicitly discloses that it tracks users across devices, but only when users turn on ads personalization for the first time. Maximally-invasive privacy settings remain on by default.