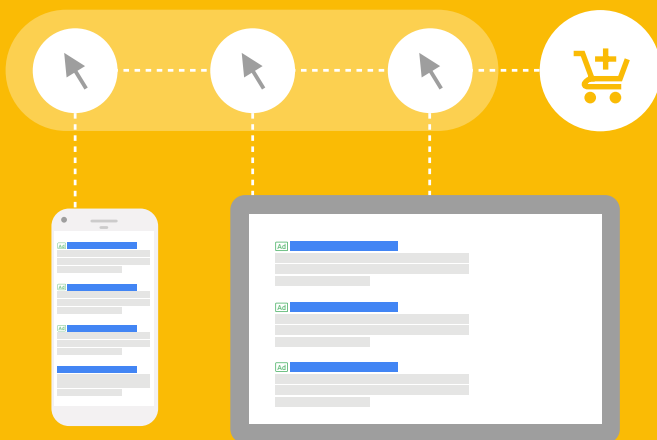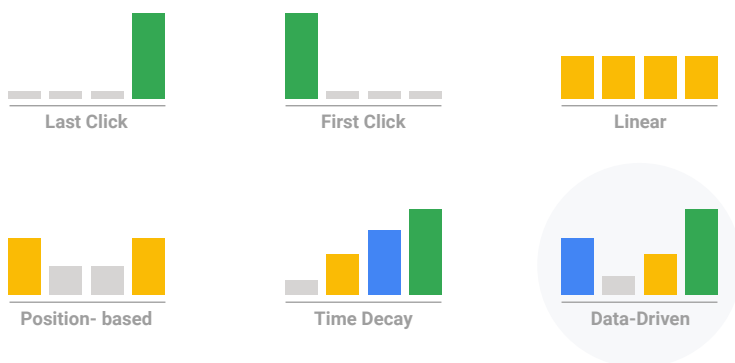# Data-Driven Attribution
Playbook

Google

Introduction to data-driven attribution

Before someone makes a purchase or completes another valuable action on your website, they may well have performed several searches and clicked on several of your ads. Typically, all credit is given to the last ad the customer clicked prior to conversion. But was it really just that last click that drove the customer to convert on your site?

Data-driven attribution (DDA) is an algorithmic approach to attribution that gives credit for conversions based on how people search for your business and decide to become your customers. It uses data from your account to determine which ads, keywords, and campaigns have the greatest impact on your business goals. You can use data-driven attribution for offline conversion imports, along with website and Google Analytics conversions from Search Network campaigns.

Historically, Adwords only allowed for last-click attribution or one of 5 rules-based models within the [AdWords Attribution Modeling Tool](): last-click, first-click, linear, position-based and time-decay. As of 2016, advertisers have been able to move away from last-click attribution for Google paid Search in Adwords after the introduction of an additional option: data-driven algorithmic attribution models.*

Last Click

First Click

Linear

Position- based

Time Decay

Data-Driven

Unlike rules-based models, data-driven attribution uses machine learning to evaluate all the converting and non-converting paths across your account, and identifies the proper credit for each interaction. The model considers the number of ad interactions, order of exposure, ad creative, and many other factors to determine which keywords and clicks are the most effective at driving results.

DDA is also available in [Google Analytics 360](), [Attribution 360](), and [DoubleClick]().

What is data-driven attribution?

Data-driven attribution (DDA) in AdWords creates an attribution model unique to each advertiser. It values all **Google paid search clicks** on the conversion path based on the incremental contribution each makes in driving conversions.

* Please note that there must be a minimum of 15,000 clicks and 600 conversions over a 30-day period to build the data-driven model for a conversion type.

The DDA model is derived from the entire paid Search path, and automatically assigns credit across all paid search clicks. Sophisticated algorithms evaluate all the different paths in the advertiser's account (both converting and non-converting) to determine which touchpoints are the most influential. Factors such as the number of ad interactions, the order of exposure and the creative assets used in each conversion path are all factored into the results.

Advertisers can easily select a data-driven attribution model by conversion type. The Conversions column in AdWords will reflect data-driven attributed conversions from the moment a model is selected, which allows advertisers to both use manual bidding and automated bid strategies to optimise against the data-driven model. You can also add the conversions (current model) column to view your data historically.

The data-driven attribution value proposition

DDA takes the guesswork out of choosing the right attribution model for your business, freeing up your time to focus on identifying new areas for marketing investment. We always recommend a data-driven model when available, because by calculating the incrementality of previous interactions on your customer paths, the model is customised specifically for each advertiser. If DDA is not available, we typically recommend a rules based model that values all touch points to at least some extent.

Requirements

All Google Search advertisers should evaluate opportunities to bid across the entire customer journey, however, there are some technical and practical limitations to implementing data-driven attribution, as it requires a certain amount of data to create a precise model. Because of this, not all advertisers will see an option for data-driven attribution.

- You should be using AdWords Conversion Tracking or GA Goal import.

- You must have a minimum of 15,000 Google Search ad clicks and 600 conversions on Google Search over a 30-day period to build a custom data-driven model (rules based attribution models do not have this requirement).

- If you are using DoubleClick Search (DS) we recommend using DDA in DS. DS DDA implementation is slightly different in that it requires manual labeling, whereas this is not required for AdWords implementation. For more details, please reference the DoubleClick Search Help Center.

Data-driven attribution delivers better results than last-click

There are more moments throughout the day for businesses to connect with consumers than ever before. It's critical for marketers to know which moments matter, and which ones don't.

A customer may search multiple times, and will often interact with many ads from the same advertiser across different devices before making a purchase, booking a flight, or signing up for an account. Because of this, advertisers know that last-click attribution may not always tell the full story.

Think of it this way: the search process doesn't start and end with "buy the exact product I already know I want." People tend to click on multiple ads before converting. This process makes it challenging to assign the proper credit where it's due. Last-click attribution, the default choice in AdWords, ignores everything except for the final, "buy the exact product I already know I want" ad click.

As marketers, it's crucial to understand which of your clicks are the most impactful, whether or not they're the last click before a conversion.

Attribution models let you choose how much credit each click gets for your conversions. As we've covered previously, you can attribute the credit to the customer's first click, last click, or a combination of multiple clicks.

Data-driven attribution (DDA) uses Google's machine learning technology to determine how much credit to assign to each click in the user journey. With DDA, you can understand how much credit should be assigned to a click on an ad aimed at "features or products I think I want." Even though it doesn't convert immediately, you might see that people who click on that ad are much more likely to become customers later on.

Advertisers with sufficient data have access to the data-driven attribution model, which was introduced to AdWords back in May 2016, and since then, we've been studying how it affects performance. A recent analysis of hundreds of advertisers using DDA revealed that performance improved when compared to last-click attribution:

When compared to last-click attribution, DDA typically delivers more conversions at a similar cost-per-conversion

For Search, data-driven is now the recommended model for all eligible advertisers. It is a better way to measure and optimise performance.

Benefits

The data-driven attribution model:

- Allows you to learn which keywords, ads, adgroups, campaigns, and/or devices play the biggest role in helping you reach your business goals.

- Enables you to optimise your bidding based on real data for your account.

- Empowers you to choose the right attribution model for your business, without guesswork.

Success Stories

In the UK, Purplebricks have successfully used DDA in conjunction with AdWords Smart Bidding to drive conversions for their innovative hybrid estate agency. On average, generic campaigns saw a 28% improvement in conversion performance, while conversions from mobile generic campaigns increased an impressive 70%. By understanding the real value of generic keywords and the contribution of different device types, Purplebricks have been able to reduce cost-per-acquisition (CPA) and stretch their budgets even further. Elsewhere in Europe, German pharmacy Medpex used a similar combination of Smart Bidding and DDA to increase their conversions by 29% while reducing CPA by 28%.

Further afield, in the USA, Select Home Warranty saw a 36% increase in leads and a 20% decrease in cost-per-conversion after implementing DDA, while global travel agency H.I.S combined DDA, Smart Bidding and Dynamic Search Ads to grow conversions by 62% at a consistent cost-per-conversion.

Data-driven attribution implementation

How data-driven attribution works

DDA is different from rules-based attribution models, in that it uses your account's conversion data to calculate the actual contribution of each search ad click along the conversion path. By comparing the paths of customers who convert to those who don't, DDA determines what truly matters for each conversion path. This also means each data-driven model is specific to each advertiser.

As long as your account has enough clicks and conversions, you're eligible for DDA. We automatically train a model that's unique to each of your conversion types. The model observes what your customers do before converting, and what they do when they don't convert, to measure what's important. There may be certain steps along the way that have a higher probability of leading a customer

to complete a conversion. The model then gives more credit to those valuable clicks on the customer's path. Using Google's machine learning, the models continue to improve over time. [Read more about DDA](#).

Example

Let's pretend a purchase path that includes keywords A + B + C leads to a 3% conversion rate. But a path that includes only keywords B + C leads to a 2% conversion rate. In this example, we know that keyword A adds 1% point, or a 100% increase to the probability of conversion.
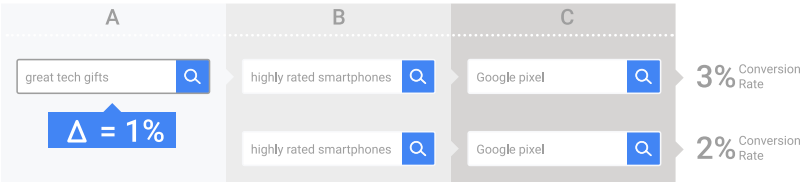
By applying this logic to hundreds or thousands of conversion paths, we can calculate the actual contribution of every keyword in your account, and optimise for the best performing ones across the conversion path. The attribution model will allocate conversion credit based on each keyword's incremental contribution towards conversions.

Credits are calculated for hundreds (or thousands) of conversion paths and will differ per path and per advertiser
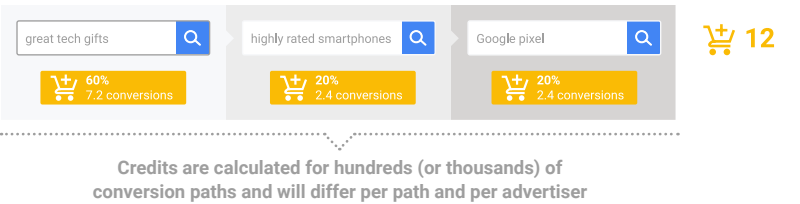
When you're evaluating conversion data through DDA, you'll see which ads have the greatest effect on your business goals. And if you use an automated bid strategy to drive more conversions, your bidding will use this important information to help you get more conversions.

About the data-driven attribution

- The DDA model is derived from the entire paid search path and automatically assigns credit across all paid Search clicks.

- Sophisticated algorithms evaluate all the different paths in your account (both converting and non-converting) to determine which touchpoints are the most influential.

- Factors such as the number of ad interactions, the order of exposure and the creative assets used in each conversion path are all factored into results.

- Using a counterfactual approach, the algorithms contrast what actually happened with what could have happened to determine which ad clicks are most critical for a conversion.

- The data-driven model is not static. The model adapts to changes which might alter the click path (e.g. expansion of generic keywords).

Set up your data-driven attribution model for success

Making the change to data-driven attribution is straightforward. When you change your conversion action settings, you can use the dropdown in the Attribution Model section to select data-driven as your attribution model.

Going forward, your "Conversions" column in AdWords will report your conversions based on the new DDA model. Smart Bidding will automatically adjust to this new way of measuring conversions. If you're bidding manually, use the "current model" columns to make the initial set of adjustments. You can find these under the set of attribution columns.

Updating your "Conversions" column is a big step, but there are a couple of additional steps to ensure that your account sees the greatest potential improvement:

- **Adjust bids considering your new DDA-based conversions.** Once you've updated your attribution model, your "Conversions" columns will begin to populate with stats that reflect your choice. From there it's easy: Optimise your bids to account for the numbers in those columns. The recommended approach is to adopt an AdWords Smart Bidding strategy, like Target CPA or Target ROAS, to drive even more efficient results; 80% of advertisers who use DDA also use Smart Bidding. Historical performance for your model can be found in the "current model" columns, which you should use as you make initial bid changes. Otherwise, manually increase your mobile opt-in and mBid during the DDA test period.

- **Give DDA some time.** Those multiple clicks in a user's conversion path take some time to happen. Give users a chance to convert or make a purchase before evaluating results. Once

your account has settled into the new method, allow a couple of weeks to pass while you gather results. We suggest you collect data for 4-6 weeks and then compare pre/post DDA results to assess success.

- **Re-evaluate keywords from earlier in the click path.** Last-click attribution could have favored some keywords at the expense of others. Now that you're doing a better job of measuring what matters, you may find that some campaigns make an unexpectedly big difference in the user journey. That difference may not have been measured appropriately in the past. It might be a good idea to exclude brand keywords from non-brand campaigns to prevent lower funnel traffic moving to upper funnel campaigns.

- **Stop reviewing assisted conversion metrics.** In the coming months, we'll be removing columns that reference assisted conversions from your statistics tables and reports.

Watch this video for more information about getting started with data-driven attribution. For more detailed guidance, including the steps to follow to properly test a new attribution model, check out our best practices for going beyond last-click attribution.
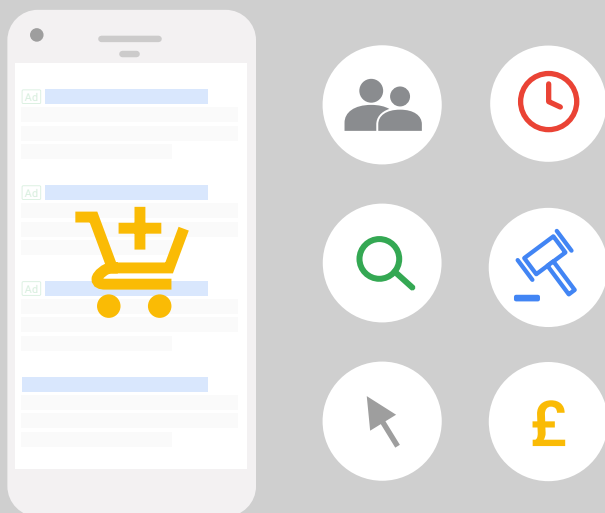
Frequently Asked Questions

What happens when I select a new attribution model in Adwords?
For each conversion type, a simple drop-down menu in Conversion
settings selects one of six different attribution models – last-click,
first-click, linear, time-decay, position-based, or data-driven.
When you pick a new model, credit will be reassigned across the
conversion path for all search or shopping ad clicks on Google.com,
and your conversion stats will change moving forward. You can
adjust bids based on your new way of counting conversions, and
if you're using automated bidding for search ads, your bids will be
optimised automatically to reflect your new model. To learn more,
visit our Help Center.

**Can I optimise towards data-driven attribution models if I'm using
a 3rd party bidding tool?** Yes, you can. If you change the attribution
model within AdWords the conversion column will start reflecting
your new attribution model going forward. This data is available

through the AdWords API, so 3rd parties can access this data directly or download it to adjust their bidding models.

Should I use Adwords attribution models with 3rd party bidding? Yes, we generally recommend using Adwords attribution models with 3rd party bidding for the following reasons:

- AdWords Attribution assigns credit across devices. If a click path crosses devices then the AdWords Attribution model can assign credit accordingly.

- AdWords Attribution assigns credit across the entire click path (no limit on the number of clicks before a conversion happens).

- AdWords Attribution conversion windows are customisable (7-90 days).

- AdWords Attribution allows for comparison of models side-by-side

- Google's data-driven attribution methodology is best-in-class, evaluating converting and non-converting paths across Attribution 360, GA 360 and DoubleClick.*

How does this work with GDN, YouTube and Search Partner conversions? These continue to be attributed according to a last-click model. Data-driven attribution works with Google.com traffic from Text and Shopping Ads only.

How long will it take to see results from a new attribution model in the conversion columns? This depends largely on your average sales cycle. If most customers take 4-5 days to convert from the first click, then you can expect that it will take at least that time period for the reporting to reflect the new attribution model. For some advertisers this is significantly longer. Take a look at the AdWords Attribution > Time Lag report for to get a better sense of this time lag.

* Reminder: If you're using DoubleClick Search (DS) and DS is your source of truth, we recommend implementing DDA in DS.