The challenge of Cross-device measurement













2007 Understanding Performance Used to be Easy

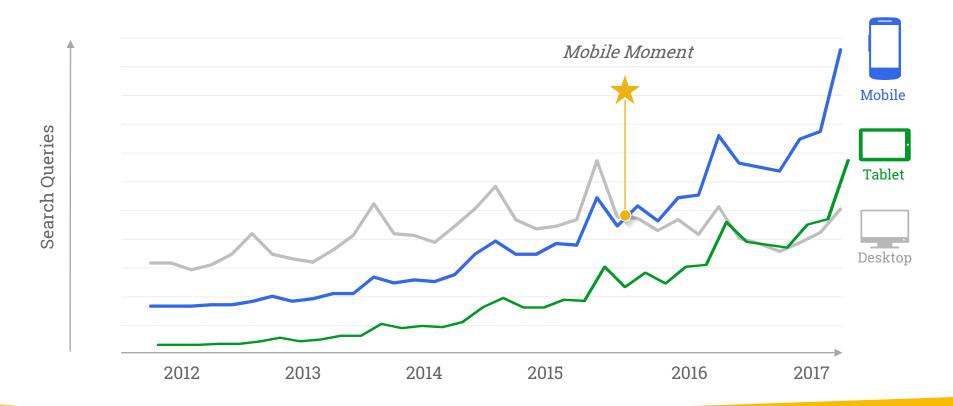


Moment Search Conversion Report



~10 Years Later

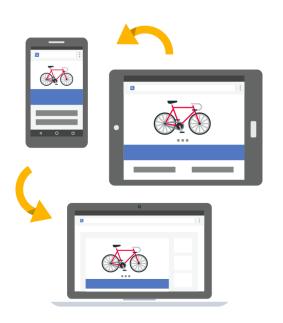
Mobile Queries Overtook Desktop Queries Globally in 2015



Across millions of websites using Google Analytics today, we're seeing more than half of all web traffic now coming from smartphones and tablets



Digital Marketing has Become **Fragmented Across Devices**, Making **Attribution a Challenge**





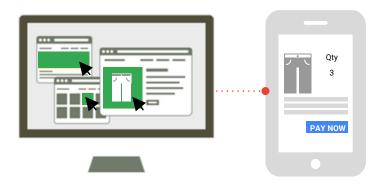
of people switch between screens to complete tasks



of all customer journeys involve more than one channel of interaction

What is a Cross Device Conversion?

Browser to browser



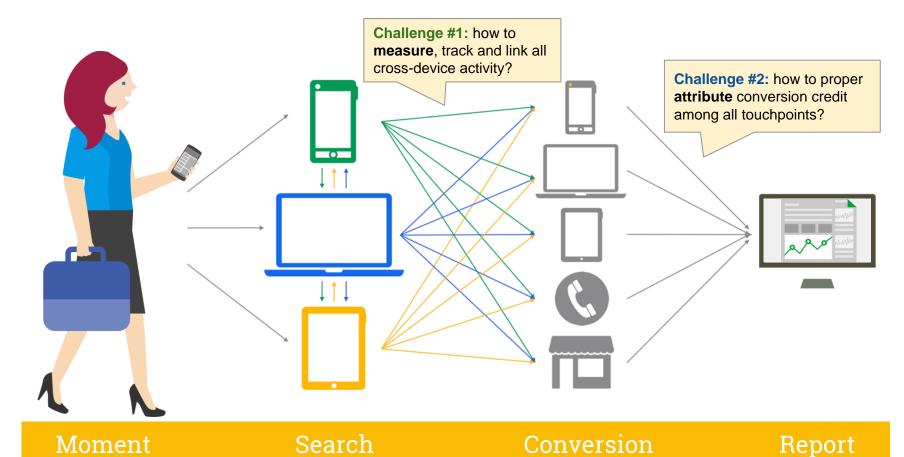
User clicks on Retailer's **desktop ad** Buys three pairs of jeans on Retailer's **mobile site**

In-app to browser



User clicks on Mother's Day flowers ad inside gaming app Later orders flowers on a website on her/his **tablet**

Understanding Performance in a Multi-Device World is Complex



Cross-Device measurement is Hot For Everyone

Most Common Industry Solutions

LOG-IN BASED

("Deterministic")

3P Authentication Data





Cross-Device Tracking







Highly scalable, user privacy Limited to few, large publishers

1P Authentication Data



User ID





Proprietary data, user privacy Limited to size of signed-in user base

SIGNALS BASED

("Probabilistic")

3P Data









Scalable solution across publishers Not 100% accurate, user has less control

Google

Unmatched Scale and Richness of Data

7 Properties with 1B+ MAUs ... and counting



Expand Data to Remaining Users Using Many Factors

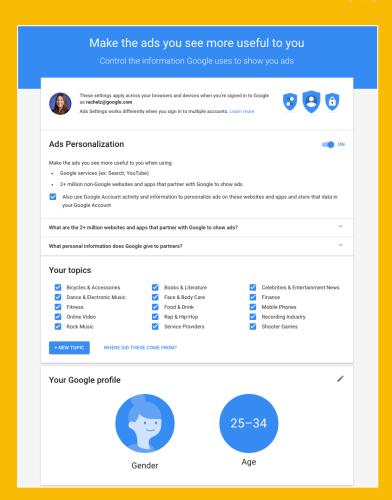
We only surface data when the data meets a strict

95% confidence interval

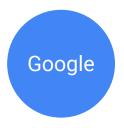


Maintain User Trust and Privacy

Users first
Ours and Yours



Better Together: Combination of Google and 1st Party Log-in Based Solutions



Leverage Google's signals to inform media bids and budgets









Start building your 1st party graph today

As technology improves, value of this graph for measurement & targeting will grow





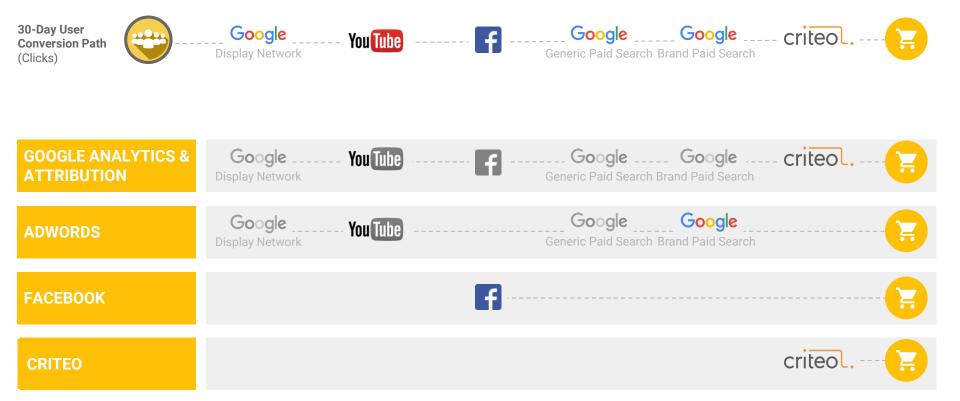
Taking action: attribution and smart bidding

Last Click

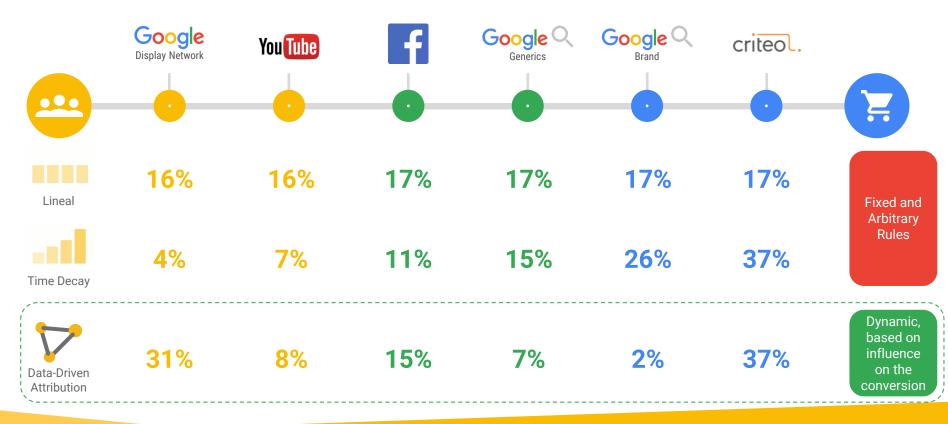
Cross Device

Attribution + Smart Bidding

What does it mean to use a Last Click attribution model?



Moving beyond Last Click: which attribution model is "the right" one?



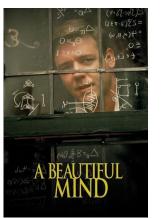
WHY DATA-DRIVEN ATTRIBUTION OVER MODELS?



NOT A BLACK BOX









Current events

Wikipedia store Interaction

About Wildowski

What links here

Upload file Special pages

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Shapley value

From Wikipedia, the free encyclopedia

The Shapley value is a solution concept in cooperative game theory. It was surplus generated by the coalition of all players. The Shapley value is char The setup is as follows: a coalition of players cooperates, and obtains a ceexample threatening to destroy the whole surplus), what final distribution o and what payoff can he or she reasonably expect? The Shapley value pro-

1 Formal definition

- 2 Example 2.1 Glove game
- 3 Properties 4 Addendum definitions
- 5 Aumann-Shapley value 6 See also
- 7 References 8 Further reading

Formal definition [edt]

Formally, a coalitional game is defined as: There is a set N (of n players)

The function v has the following meaning: if S is a coalition of players, then The Shapley value is one way to distribute the total gains to the players, as the Shapley value.[5] the amount that player / gets given in a coalitional ga

$$\phi_i(v) = \sum_{S \subseteq S \setminus \{i\}} \frac{|S|! \ (n - |S| - 1)!}{n!} (v(S \cup \{i\}) - v(S))$$



INTUITIVE

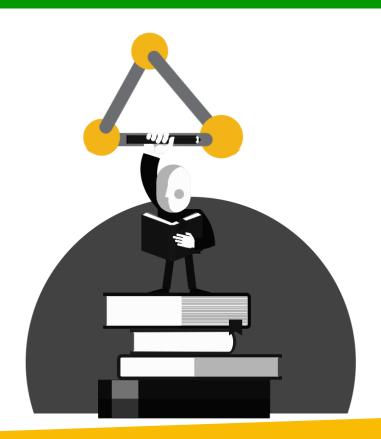
PREMIUM PRODUCT ... FOR FREE



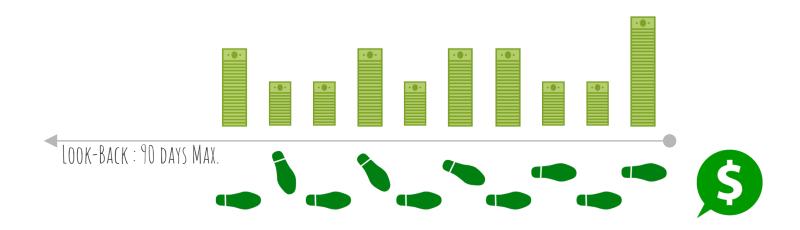




LET'S BUILD A DATA DRIVEN ATTRIBUTION MODEL!

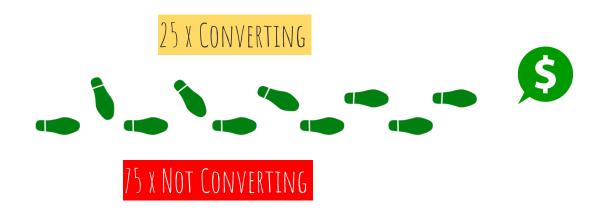


IT WILL TAKE US ONLY 4 STEPS TO BUILD IT





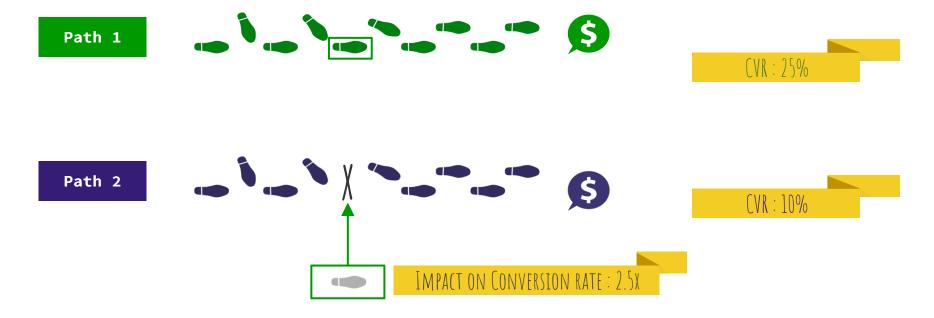
STEP 1: CALCULATE THE CONVERSION RATE FOR A SEQUENCE OF KEYWORDS



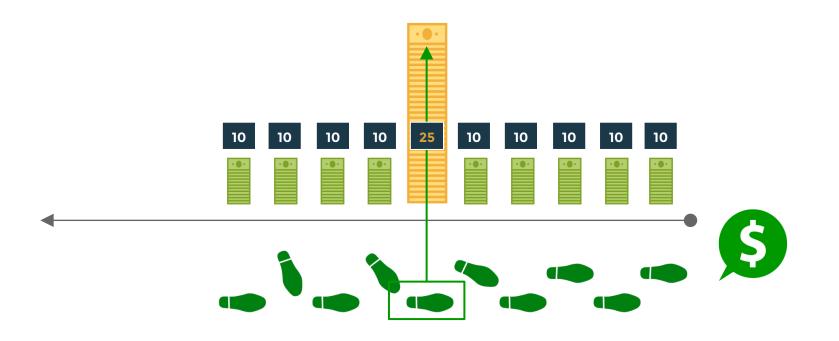
CVR = 25%

STEP 2: NOW TAKE A PATH THAT LOOKS EXACTLY THE SAME APART FROM ONE KEYWORD

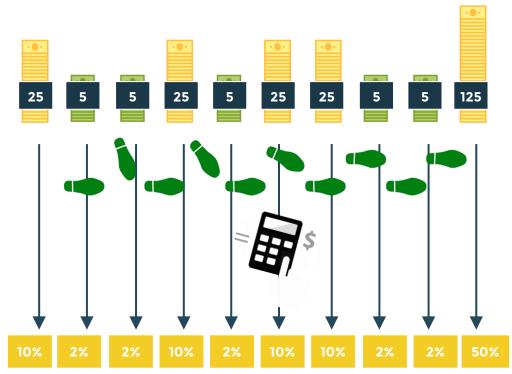
(COMPARE CONVERSION RATES TO DETERMINE THE UPLIFT FROM THAT ONE KEYWORD)



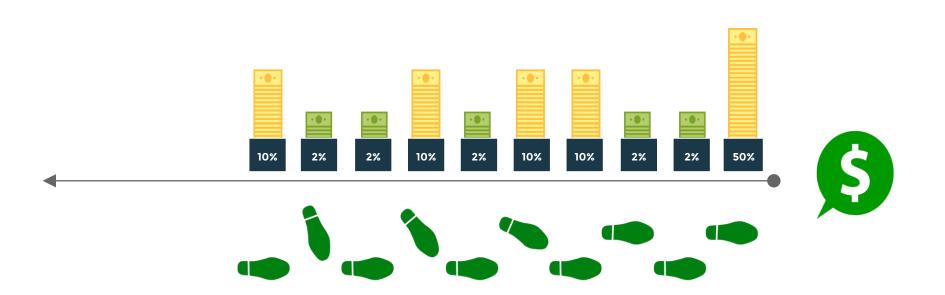
STEP 3: WE APPLY THIS UPLIFT TO THE ORIGINAL WEIGHTING



STEP 4: WE DO THE SAME FOR EVERY KEYWORD IN THAT SEQUENCE AND RESCALE BACK TO 100%



HERE IS OUR NEW DATA DRIVEN ATTRIBUTION MODEL!



Conclusions and where are we heading

Take action now!









Both products now include **full cross-device paths**:

- Attribution reporting gives insights in the cross device behaviour
- Google's smart bidding automatically maximizes your conversions across devices; no need to manually set a mobile bid modifier

AdWords Data Driven Attribution model is already available for free and assigns conversion credit across devices. It also allows reporting and bidding to optimize against it



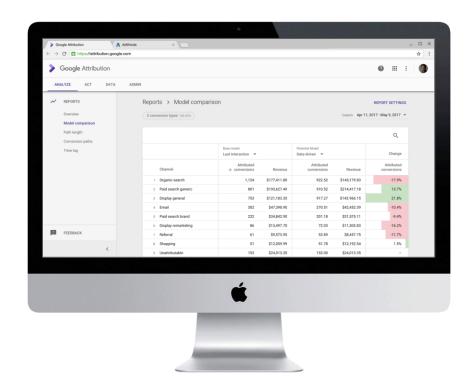
Google Attribution (free / 360)

A single source of truth for cross-channel, cross-device, multi-touch attribution.

Google Attribution is targeted at all advertisers who have cross-channel attribution needs







Past Present City of London Manual Last **Smart** Data **Bidding** Click **Bidding Driven** Plan for

Thank You!

mtrias@google.com