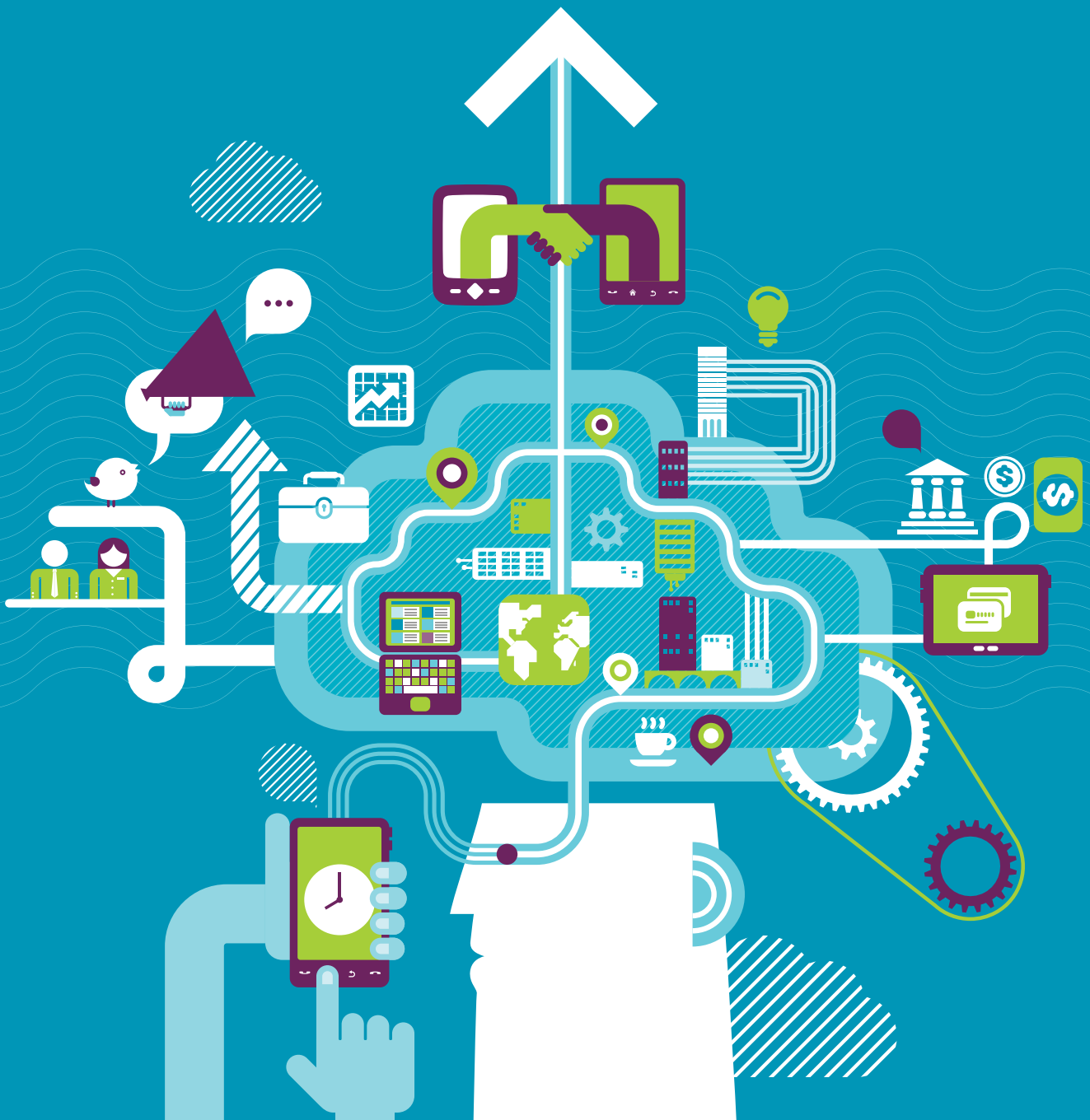




MARKETING ATTRIBUTION

WHAT'S DRIVING SALES & CONVERSIONS?



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INTRODUCTION

It's necessary to preface this by saying that, while attribution modelling deals in maths, this eBook will not – the kind of formulae that modelling uses are of a kind that makes heads spin.

Higher mathematical formulae and logic are difficult to grasp – but thankfully there are ways to use a highly mathematical method of attribution without having to get in to the numbers – unless you're able to handle them (and even then, the chances are that existing models will suffice).

WHAT IS MARKETING ATTRIBUTION?

Marketing attribution is a process through which a number of consumer actions (commonly termed 'events' or 'touchpoints') are identified – each of which contribute to a desired outcome (purchase or conversion) and which are then weighted and valued according to their importance to the completion of the outcome.

You will, almost without fail, be using one of the algorithmic models available to you in Google's Analytics 360 suite. These work using machine learning and are constructed according to the method you can see in [this Wikipedia](#) article.

While the Wikipedia article offers some explanations – it required some explanation for me time to get my head around even the first part of the behavioural model – which seems to see attribution as a sum of covariates and binary choices between 1 and 0 where the choices relate to whether a consumer saw an ad or not (1 vs 0) and whether that led them to purchase or not (again 1 vs 0). It only gets more convoluted from there.

Behavioral model [\[edit \]](#)

Suppose observed advertising data are $\{(X_i, A_i, Y_i)\}_{i=1}^n$ where

- $X \in \mathbb{R}$ covariates
- $A \in \{0, 1\}$ consumer saw ad or not
- $Y \in \{0, 1\}$ conversion: binary response to the ad

Consumer choice model⁽⁹⁾ [\[edit \]](#)

$u(x, a) = E\{Y|X = x, A = a\} \quad \forall X \in \mathbb{R} \text{ covariates and } \forall A \text{ ads}$

$$u = \sum_k A \beta^k \psi(x) + \epsilon$$

Covariates, X , generally include different characteristics about the ad served (creative, size, campaign, marketing tactic, etc.) and descriptive data about the consumer who saw the ad (geographic location, device type, OS type, etc.).

Utility theory⁽¹⁰⁾ [\[edit \]](#)

$$y_i^* = \max_{i_1} \{u_{i_1}\}$$

$$\begin{aligned} Pr(y = 1|x) &= Pr(u_1 > u_0) \\ &= 1/[1 + e^{\sum_k A \beta^k \psi(x)}] \end{aligned}$$

While there is a creation wizard available (if you select 'Conversions', then 'Attribution' and finally 'Model Comparison Tool' from your menu in Analytics) in which you can define your custom attribution model, I thought it necessary to point out the complexity underlying these models to indicate the potential difficulties of defining one of these that will be representative without the facility to understand the underlying complexity of the algorithms involved.

Create or edit attribution model

Model Name

Baseline Model
Linear

Lookback Window Off
Specify the look-back period used for attribution.

Adjust credit based on user engagement Off
Apply multiple weighting rules based on site engagement metrics from the resulting visit.

Apply custom credit rules Off
Apply multiple weighting rules to greatly expand the way your model is defined.

Save and Apply Cancel

Your first attribution model, should you choose to create one, will by no means be your last – it will take tweaking and working out and reworking, but fortunately, so long as you have historical analytics data, you can test your models against past performance before settling on it as a final result.

Thankfully, we have mathematical masters in our PPC department that deal with custom modelling, leaving this eBook the task of guiding you through the process of using the standard attribution models in Google Analytics and how to find out which part of your search marketing mix is doing what for your bottom line.

MARKETING ATTRIBUTION IN GOOGLE ANALYTICS

While there will doubtless be many among the readers who have never looked at the attribution section of their analytics account and may feel that they have not been harmed by the fact, examining the attribution of your content can reveal top performing and underperforming channels, and offer valuable insight in to areas for improvement.

STANDARD AVAILABLE MODELS

Google Analytics has several built in attribution models ready for use especially if you are not in a position to create your own model. While many of these are out of favour (as consumer interaction with brands online becomes ever more convoluted), we've detailed them all here:

Last interaction

An outmoded, but bizarrely prevalent model, 'Last Interaction' attributes full credit for the conversion or goal completion to the content with which the consumer interacted directly prior to purchase. As it essentially dismisses the importance of the consumer journey, we recommend against this model for most purposes.

Last Non-Direct Click

While this takes a step back from the last interaction model, the last non-direct click model still attributes the full credit for a consumer conversion to a single thing, meaning that it again ignores the value of the other interactions a consumer may have with your content prior to their purchase decision. As such, we also recommend against this.

Last Google Ads Click

This, as with the other models discussed so far, credits a single interaction for the goal completion or conversion – this time the last paid search ad that the consumer has clicked on prior to conversion.

First Interaction

The last of the single step attributions available as standard in Google Analytics, this attributes any sale or conversion to the first interaction a consumer has had with any of your content. As with the previous three models, the lack of attention given to the journey makes this an inferior model for the modern multi device, multi-channel consumer journey.

Linear

While imperfect, 'Linear' is the first of the three more useful options of those models available as standard in Google Analytics. It offers a better view of the consumer journey, giving equal weight to the various touch points in their journey. While, clearly, some interactions will be more important – both from your point of view and that of the consumer – the linear model is at least closer to representative of the big picture.

Time decay

The second of the models that better capture the consumer journey; the 'Time Decay' model distributes credit for conversions across the full consumer journey. The most credit is attributed to the most recent interaction and the rest shared on according to the distance between the interaction and the conversion.

Position based

This model does offer more than the single attribution models, but does miss out a lot of the journey – attributing the conversion equally between first and last conversion. While these can reasonably be seen as the most important contact points in the journey, using this model does rob you of many of the insights of the more even models.

Last Interaction

Search

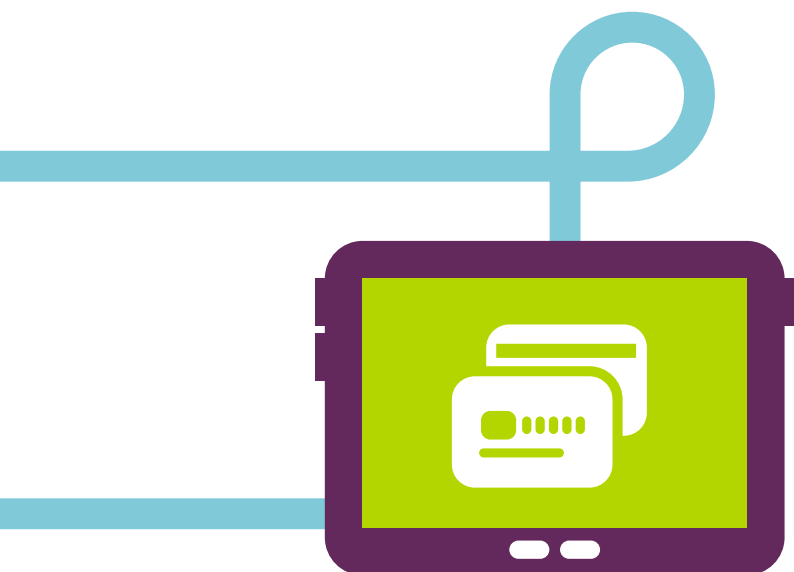
▼ **Default Models**

- Last Interaction**
- Last Non-Direct Click
- Last Google Ads Click
- First Interaction
- Linear
- Time Decay
- Position Based

Custom Models

[Create new custom model](#)

[Import custom model from Gallery](#)



COMPARING THE MODELS

We're going to look in to why the multi interaction models are more representative in the next section, but simply for illustrative purposes, we're going to look at a short time period in analytics and the difference in the relative importance of each channel when viewed in accordance with three different models. It should also be noted that the view used for the table only contains some evergreen contact form goals – which will naturally diminish the importance of some channels (in this instance, email and referral) which play a larger role in more recently created views.

COMPARATIVE PERFORMANCE

In the below table, we can see that the direct channel is the most important across the board – this can be attributed to a tendency for the type of goal completion this table illustrates taking place as a secondary or tertiary (or more) interaction with the site (often from a bookmark or direct URL input), but for the rest of this description, we're going to assume this view exists in isolation.

MCF Channel Grouping	Spend (for selected time range)	Conversions & CPA						% change in Conversions (from Last Interaction)	
		Last Interaction		Time Decay		Linear		Time Decay	Linear
		Conversions	CPA	Conversions	CPA	Conversions	CPA		
1. Direct	-	76.00 (31.54%)	-	67.49 (28.00%)	-	65.73 (27.27%)	-	-11.20%	-13.51%
2. Organic Search	-	52.00 (21.58%)	-	56.47 (23.43%)	-	57.64 (23.92%)	-	8.60%	10.85%
3. Display	£2,739.29	41.00 (17.01%)	£66.81	41.00 (17.01%)	£66.81	41.00 (17.01%)	£66.81	0.00%	0.00%
4. Paid Search	£6,176.86	28.00 (11.62%)	£220.60	31.07 (12.89%)	£198.78	31.64 (13.13%)	£195.21	10.98%	13.01%
5. Referral	-	26.00 (10.79%)	-	26.99 (11.20%)	-	27.00 (11.20%)	-	3.82%	3.85%
6. Email	-	16.00 (6.64%)	-	16.99 (7.09%)	-	17.25 (7.16%)	-	6.22%	7.81%
7. (Other)	-	2.00 (0.83%)	-	0.98 (0.41%)	-	0.73 (0.30%)	-	-51.02%	-63.33%

Show rows: 10 Go to: 1 1-7 of 7

Last interaction attributes 76 conversions to direct traffic – great, but this drops more than 11% with time decayed attribution, and 13.5% with linear attribution. Still good numbers, but it becomes apparent that the ‘Direct’ channel grouping is not solely responsible for at least 11% of the conversions we would attribute to it if we used a single contact point.

The same is true, in reverse, in the case of the ‘Paid Search’ channel – which we can see is credited with 28 conversions according to last interaction, a score which improves by 11% and 13% when looked at through the lens of time decay or linear attribution.

The attributed conversions increase by almost 30% above the ‘Last Interaction’ total if we look at it using ‘First Interaction’ – indicating that a substantial portion of the goals attributed to the ‘Direct’ channel may have originally visited the site following an interaction with a paid search ad.

WHY THIS MATTERS

While the importance of these figures may not be immediately apparent, if we were to examine the attribution of our conversions using one of the single contact point methods, it is easy to over or underestimate the importance of one or another channel – which, if we allow this assumption to carry over in to budget allocation, could cause an important assisting channel to lose investment, having an unforeseen knock on effect to the whole process.

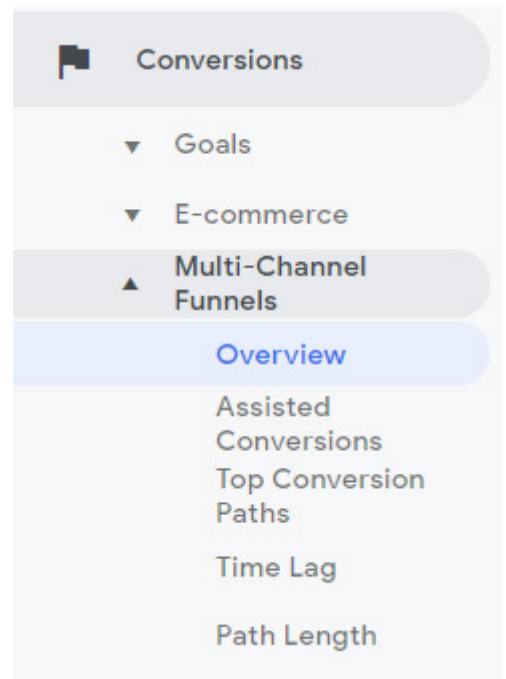
For this reason, we can look at our ‘Multi-Channel Funnels’ reports to get a better idea of the interrelationship of these channels.



MULTI-CHANNEL FUNNELS

The 'Multi-Channel Funnels' reports will allow you to better assess the interconnectivity of your channels and the channels which integrate most often in a consumer journey. You find these reports by selecting 'Conversions' from the menu side-bar, and then – by selecting 'Multi-Channel Funnels' – you'll see the report options drop down.

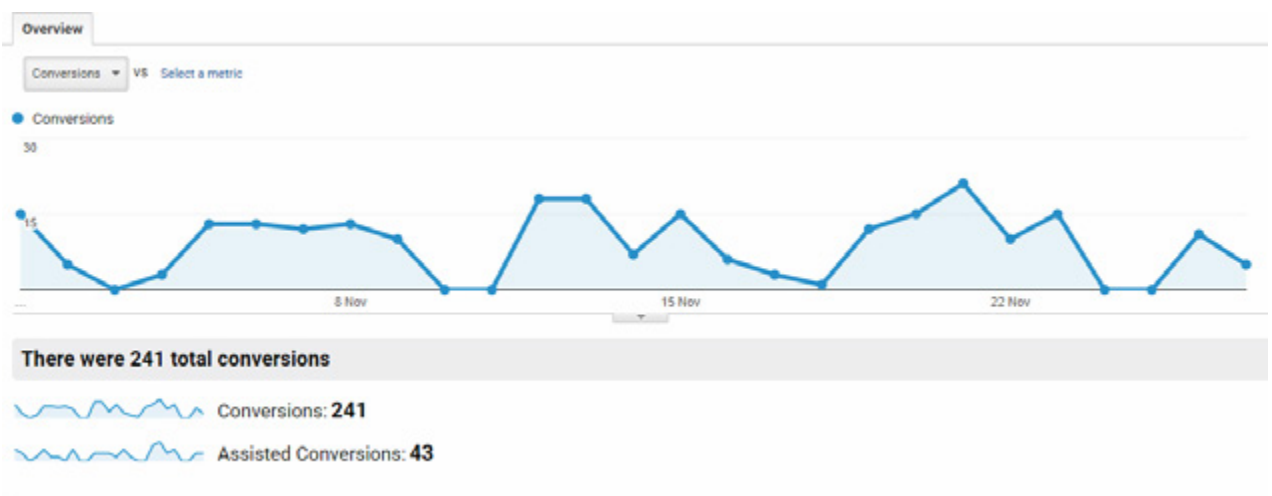
While these are not technically attribution reports, they can assist with the development of any future attribution models, and can provide insight in to the consumer journey that will allow you to make better judgements about the model you implement

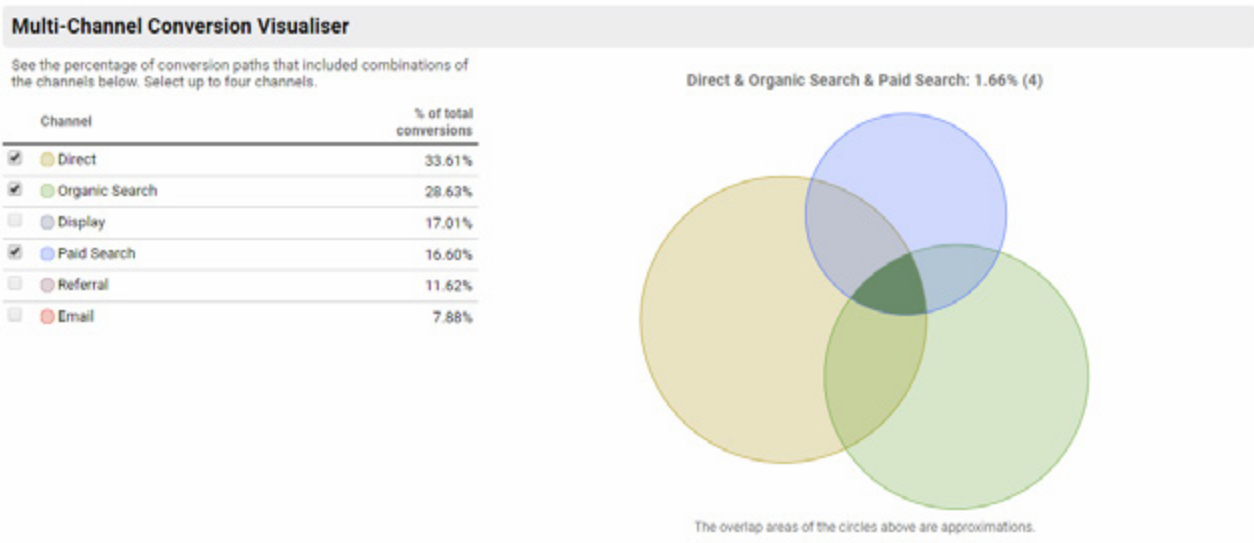


OVERVIEW

The overview report is made up of a customisable line chart (showing conversions by default), and a 'Multi-Channel Conversion Visualiser' which allows you to see the connection between your channels.

The line chart is fairly self-explanatory – simply plotting number of conversions or assisted conversions over time.





The above shows the 'Multi-Channel Conversion Visualiser'. The check boxes will allow you to select all of the channels that have an intersection with the others selected. The visualisation on the right, therefore, is the percentage of overall conversions per channel and overlap areas which represent conversions which included both or all three channels. In this example, therefore, we can see that a third of conversions come from direct, more than a quarter from organic and sixteen percent from paid – but of those conversions:

- 4.98% include the paid and direct channels
- 6.22% include the organic and direct channels
- 3.32% include the organic and paid channels
- 1.66% include all three selected channels

Therefore, of the 79% of all conversions represented by the three channels, 15% are in some way linked to at least one other channel.

ASSISTED CONVERSIONS

Another pre-set report – this time with a table giving assisted conversion numbers instead of the visualisation – the 'Assisted Conversions' report is again useful for showing the interconnectivity of the various channels. Of the 284 total conversions, a full 15% of them were assisted conversions (conversions that can be attributed to more than one touch point). There is also (if a value has been attributed to a conversion) a value given for both the assisted and last click or direct conversions.



TOP CONVERSION PATHS

This report also has a ‘conversions over time’ line graph at its top, but with this report what will give you the most information about your consumer journey to conversion is the table below that details the (as you would expect) top conversion paths for your site.

MCF Channel Grouping Path	Conversions	Conversion Value
1. Organic Search → Direct	62 (19.63%)	£0.00 (0.00%)
2. Direct × 2	40 (4.86%)	£0.00 (0.00%)
3. Email × 2	39 (6.69%)	£0.00 (0.00%)
4. Email × 3	21 (3.60%)	£0.00 (0.00%)
5. Organic Search → Direct × 2	16 (2.74%)	£0.00 (0.00%)
6. Paid Search → Direct	15 (2.57%)	£0.00 (0.00%)
7. Email → Direct	14 (2.40%)	£0.00 (0.00%)
8. Referral → Direct	14 (2.40%)	£0.00 (0.00%)
9. Paid Search × 2	12 (2.06%)	£0.00 (0.00%)
10. Organic Search → Paid Search	12 (2.06%)	£0.00 (0.00%)

Show rows: 10 Go to: 1 1-10 of 200

As we can see from this table – which I have set to look back for the longest period possible, 90 days – the top five paths include:

- An organic search that leads to a direct visit and a conversion
- Two direct visits with the second resulting in purchase
- A first email that generates interest followed by a second email that converts
- A first email that generates interest followed by a second and then a third and final email which converts
- An organic search that generates interest, a direct visit which engages and a second direct visit which converts

This again indicates how reliant on multi-channel user journeys the account is – with the top ten including journey types which cover each of the channel groupings.

TIME LAG

Time lag is a report that will give you an indication of the consideration time for the decision to convert – and can inform your understanding of the length of the consumer journey. With this view, as stated, the forms are predominately contact forms or sign-ups – or, in other words, low stress decisions with no cost to the consumer. As such, the table shows a heavy skew toward a same day decision – if the consumer likes what they see, it costs them nothing to convert, and so they do.

Time Lag in Days	Conversions	Conversion Value	Percentage of Total	
			Conversions	Conversion Value
0	1,589	£0.00	81.45%	0.00%
1	35	£0.00	1.79%	0.00%
2	22	£0.00	1.13%	0.00%
3	20	£0.00	1.03%	0.00%
4	14	£0.00	0.72%	0.00%
5	13	£0.00	0.67%	0.00%
6	14	£0.00	0.72%	0.00%
7	8	£0.00	0.41%	0.00%
8	5	£0.00	0.26%	0.00%
9	5	£0.00	0.26%	0.00%
10	9	£0.00	0.46%	0.00%
11	9	£0.00	0.46%	0.00%
12-30	91	£0.00	4.66%	0.00%
31-60	62	£0.00	3.18%	0.00%
61-90	55	£0.00	2.82%	0.00%

However, there is also a 10% chunk of the conversions that take between 12 and 90 days – which, when viewed in conjunction with the previous report, should not only explain the multi-email, multi-visit channels. In addition, however, it also demonstrates the importance of continuously engaging with consumers through various channels to develop a level of brand awareness and trust that can lead to conversion later on.

PATH LENGTH

As with the other multi-channel reports, this will not help directly with attribution, but it will give an indication of the necessity of proper attribution. While again, the below chart for a fairly low risk conversion, demonstrates a reasonably high conversion rate at first interaction, you can see that 30% of conversions required three or more interactions.

Path Length in Interactions	Conversions	Conversion Value	Percentage of Total	
			Conversions	Conversion Value
1	1,368	£0.00	70.12%	0.00%
2	285	£0.00	14.61%	0.00%
3	114	£0.00	5.84%	0.00%
4	50	£0.00	2.59%	0.00%
5	37	£0.00	1.90%	0.00%
6	22	£0.00	1.13%	0.00%
7	8	£0.00	0.41%	0.00%
8	9	£0.00	0.46%	0.00%
9	9	£0.00	0.46%	0.00%
10	8	£0.00	0.41%	0.00%
11	5	£0.00	0.26%	0.00%
12+	36	£0.00	1.85%	0.00%



CONCLUSION

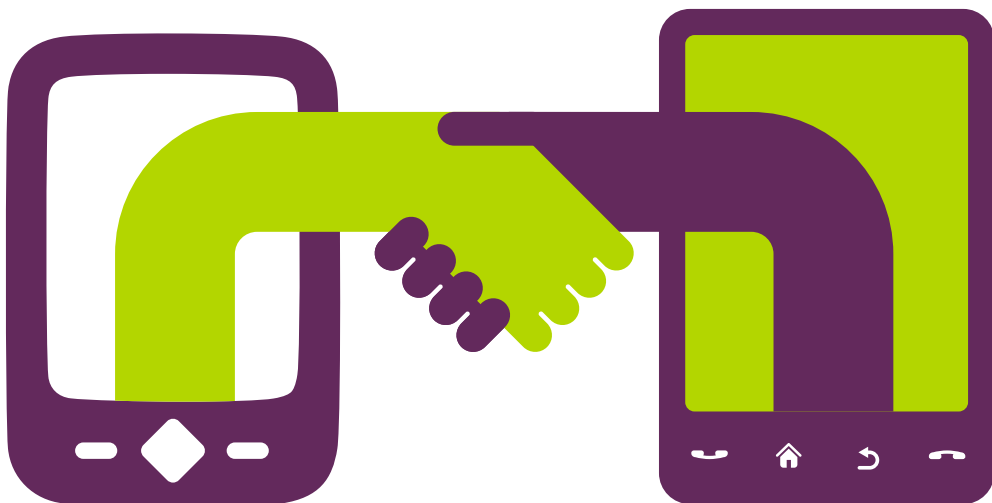
While I can't claim to be able to give you the perfect custom model for attribution – there's no one size fits all – there are attribution models readily available that will help you to make better choices regarding the investment you make in various channels.

Not only that, but with the average consumer journey increasingly running across device and for more and more interactions, it is easy to see that brands need to ensure that their method of attribution is keeping up with the shifting digital landscape.

For this reason, whether you decide to implement custom models or one of the more useful standard models, the choice to implement appropriate attribution isn't whether or not to do so, but which one to use – and you can make this decision more easily using the reports available in the 'Multi-Channel Funnels' reports.

Make sure you're spending your money in the right place; and that you're catering to the journey your consumers are taking and not the one you think they should be.

By implementing the right model, you can find out what is converting, how long it takes and – perhaps more importantly – how you can improve your chances for conversion by studying the top performing paths and the content you are using across each.



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ABOUT US

Click Consult is a multi award-winning digital and search marketing agency with a focus on organic (SEO) and paid search (PPC). Part of global consumer brand business Ceuta Group, we have a team of 70-plus specialists and a portfolio of more than 60 clients worldwide.

Our complementary services include content marketing, outreach, social media, conversion rate optimisation (CRO): and international/multilingual search marketing. We can also offer training and consultation to support your teams or existing strategy.

Click was named Search Agency of the Year 2018, adding to our long list of other awards and accolades, and also ranks within Econsultancy's 'Top 100 Digital Agencies', and Prolific North's 'Top 50 Digital Agencies'. We're also a Google Premier Partner, a Bing Select Partner and feature in The Drum Recommends.

YOUR BESPOKE ORGANIC SEARCH (SEO) ANALYSIS AND REVIEW

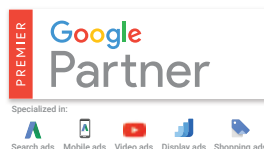
REQUEST NOW



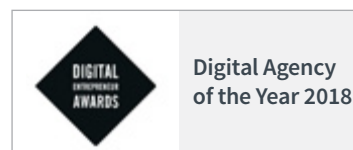
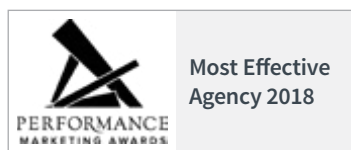
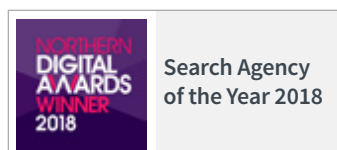
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