



How to use behavioural insights to maximise positive marketing outcomes

Improve the customer experience and boost campaign performance by using data to better understand – and predict – customer behaviour.

A marketer's crystal ball

Good marketers use historical data to refine their campaigns in an effort to improve outcomes. Truly great marketers will try to predict the future on an individual customer level.

Although it will always be impossible to know for sure exactly how someone will act, people generally have underlying reasons that account for their behaviour. There are now tools available that explore and identify patterns in behaviour that help you make reasonable predictions about their next action.

This is why customer journey analytics has become so important. It allows marketers to map journeys, understand patterns in behaviour and use those insights to optimise campaigns and communications.

Behavioural modelling takes these activities to the next level by predicting customer journeys. Many customer data analysis methods, such as segmentation, are descriptive – they look at static data to identify what happened in the past. Predictive analytics are focused on determining what customers will do in the future.

“Those who cannot remember the past are doomed to repeat it.”

–

George Santayana

Behavioural modelling combines two fields:



Customer journey analytics



Predictive modelling

Behavioural modelling is essentially building the bridge between “what has happened” and “why did it happen”.

Ultimately, behavioural modelling allows you to move beyond insight, into the realm of **foresight**.



Introducing behavioural modelling

Behavioural modelling is a specialised subset of predictive analytics. The idea is to create the data required for effective analysis of customer journeys – and the better that data is, the more likely you will be able to find time-dependent patterns at a transactional level.

Behavioural modelling attempts to explain the factors involved in customer decision-making – you want to know the ‘why’ that motivates what they do. By learning from historical patterns in customer behaviour, you can then begin to predict what they are most likely to do in the future. Marketing strategy is data-driven, further improving targeting accuracy and campaign outcomes.



Why is behavioural modelling so appealing to marketers?

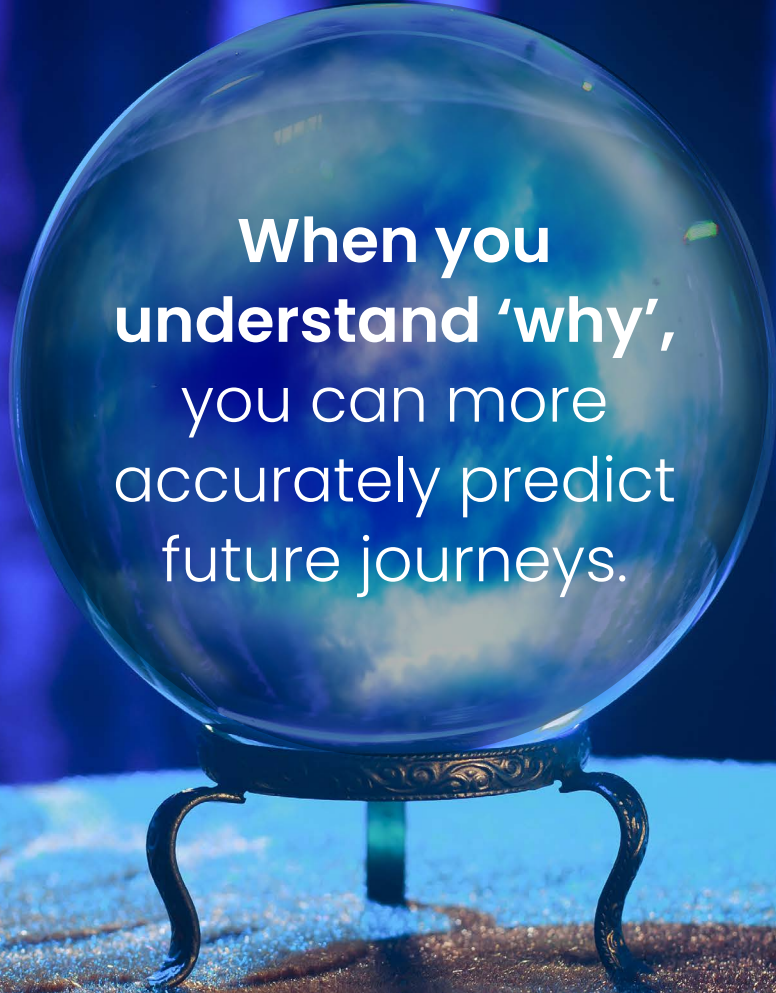
Marketers are not short of tools to help them understand what has happened. Traffic volumes, click rates, bounce rates, linger time ... the list of potential metrics is endless. However, techniques dealing with the analysis of these metrics are often considered as “descriptive” as they focus on describing what has happened.

Behavioural modelling goes beyond this and reveals the ‘why’ behind customer actions – why they clicked through, why they

bounced off your site, why they stopped to linger.

Done correctly, behavioural analytics will also show how a campaign has affected user behaviour over the long term.

**Capturing the
‘what’ is important,
but identifying
‘why’ is critical.**

A crystal ball sits on a dark, ornate stand with three curved legs. The crystal ball is filled with a swirling, ethereal blue and white light, resembling a nebula or a storm. The background is a dark, textured surface with vertical streaks of blue and purple light, giving it a mystical or futuristic feel. The text is centered within the crystal ball.

**When you
understand 'why',
you can more
accurately predict
future journeys.**

When you understand the 'why' you can try to predict the next step in each customer's journey and anticipate what they will do next.

Once you have identified the potential next step, you can design communications and processes that promote positive behaviour and avoid negative outcomes.

Modern technology allows you to perform behavioural modelling at scale. It is possible to anticipate the next steps at an individual level in your contacts database – and to enable one-to-one marketing personalisation that connects on a personal level.

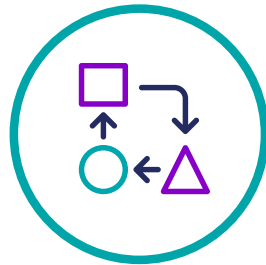
How does behavioural modelling work?

Behavioural modelling typically follows a four-stage process:



Analyse

Analysing people's past behaviour to identify patterns over time.



Recognise

Recognising similar patterns occurring in current behaviour.



Predict

Predicting the next step by assigning a score to people based on what they are doing now.



Steer

Steering the customer journey using those scores to maximise the benefit for your customers and your business.

These common patterns are known as behavioural features and manifest as trends such as a reduction in website visits, or a sequence of connected events during the journey.

Behavioural features can be split into three categories:



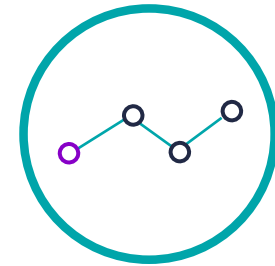
Summary measures

Simple and relatively crude, these include metrics such as average spend, booking count and basket abandonment rate.



Dynamic trends

These can be measured using metrics such as a reduction in web visits or an increased average linger time.



Sequence of events

These are a combination of factors that lead up to a behavioural outcome, such as a customer who made a complaint but didn't receive a satisfactory response – and what they did next.

Using behavioural modelling it's possible to steer the next steps by carefully targeting customers who display specific behaviours. Pre-defined marketing actions can then be triggered automatically when a known pattern is identified in a current customer's behaviour.

Take the desire to reduce cancelled orders, for example. Analysis shows that customers with unanswered complaints historically cancel their orders. The model recognises this behaviour in existing customers and gives them a high score, so you know who to target and therefore helps you steer the desired next step. In this instance, that could mean triggering a marketing action that helps you recover the transaction and prevent cancellation.

Identify customers showing certain behaviours and steer them to take a specific next step.



What type of data does behavioural modelling rely on?

Behavioural modelling is built on transactional, time-dependent data. The transactional data you need comes in two forms:



Behavioural data

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This is where the transaction event is initiated by the customer. This data includes factors such as making a purchase, visiting your website or making a complaint.

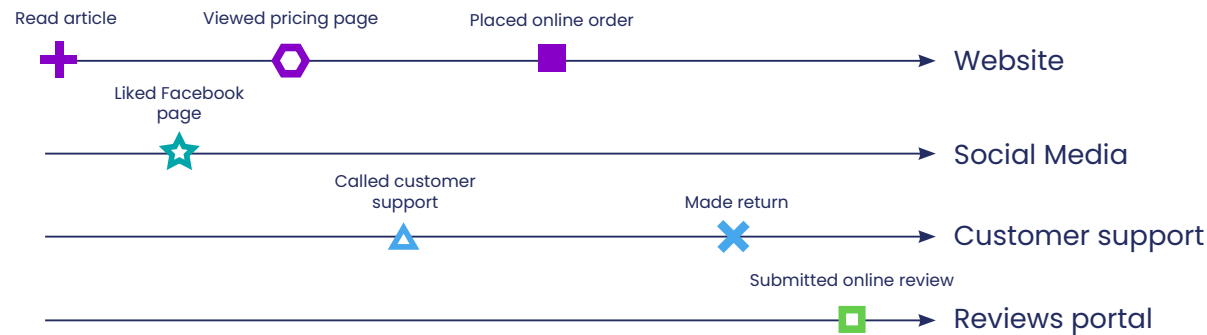


Communication data

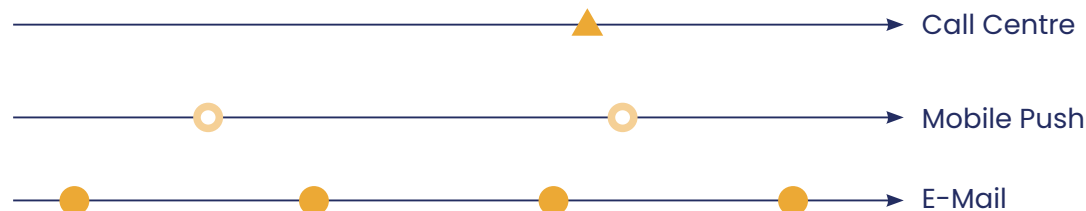
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These are communications activities initiated by your business via one or more channels.

Behavioural data



Communication data



Customer journey (timeline of transactional events)



Our example shows the sequence of actions a customer has undertaken when interacting with our business. We can also see the different communications this customer has received from us via different channels.

Combining this behavioural and communication data results in a timeline of transactional events that is individual for each customer. The challenge for marketing is to make sense of the patterns within the multiple data sources which are intertwined in the customer's rapidly evolving timeline. This timeline builds the foundation for our behavioural analysis.

Behavioural modelling in action

The best way to understand the behavioural modelling process – and its value – is with an example.

Say your objective or target is to increase registrations and usage among the people who download and register with your app. You believe there may be a link between app registration and behaviour before, during, and after arriving at the website.



Let's start by clarifying types of behavioural features as defined earlier on.



Summary measures

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Traffic volumes and sources

Length of time between
arriving at the page and
downloading the app

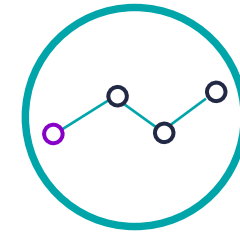


Dynamic trends

—

Increase or decrease in
previous site visits

Increase or decrease in app
usage after download



Sequence of events

—

Source of link to website

Which reviews were read

Were the last reviews positive
or negative




In the past you may have examined your data to identify the people who have downloaded your app and looked for characteristics they share. You discover that the majority have visited your site via a referral link, while a small minority clicked on a link shared on social media.

However, if you only consider the volume and source of the traffic that led to a download you're basically limiting your view to summary measures and also don't know what is the difference between those only downloading the app and those also registering it.

The real secret of behavioural modelling lies in the ability to analyse behaviour at different points along customer journeys and to identify distinctive features of those who are part of the target group.

We want to understand the behaviours that are typical of the people who both downloaded and also registered the app. Once we recognise a behavioural pattern that has led to this goal, we can start identifying other people with similar patterns and steer them to register their app.

The analysis stage of behavioural modelling involves the following three steps:

-  Define timeframes along the customer journey
-  Compare target customers with a baseline
-  Learn from differences in behavioural features within the timeframes along the journey

The following visualisation demonstrates how we can apply these three steps to our app example to understand what is different about the target customers who registered their app, compared to a baseline of those who only downloaded it.

The secret lies in understanding the differences in **behavioural features** along the customer journeys.

Objective

1 Define timeframes along the customer journey

2 Compare target customers with a baseline who don't register

3 Learn from differences in behavioural features within the timeframes along the journey



Then recognise similar behaviours in other customers to predict their next steps and steer towards best objective

The comparison against a baseline is essential to understand the importance of each behavioural feature. Take for example trying to understand which type of source link is most likely to yield customers who go on to register their app.

In our example, a baseline comparison reveals that a majority of those who downloaded the app via the referral links did not actually register the app. Whereas the small number who came via social links boast a high percentage of users who did register the app after downloading.

Understanding 'why' - needs comparison

Comparison with the baseline gives greater insight

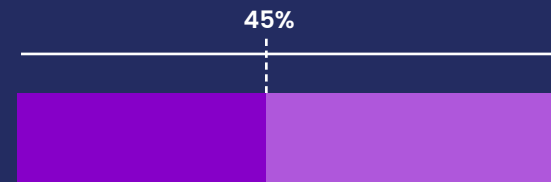
■ Social ■ Organic ■ Referral



Download & registered



Download only



Referral



Organic



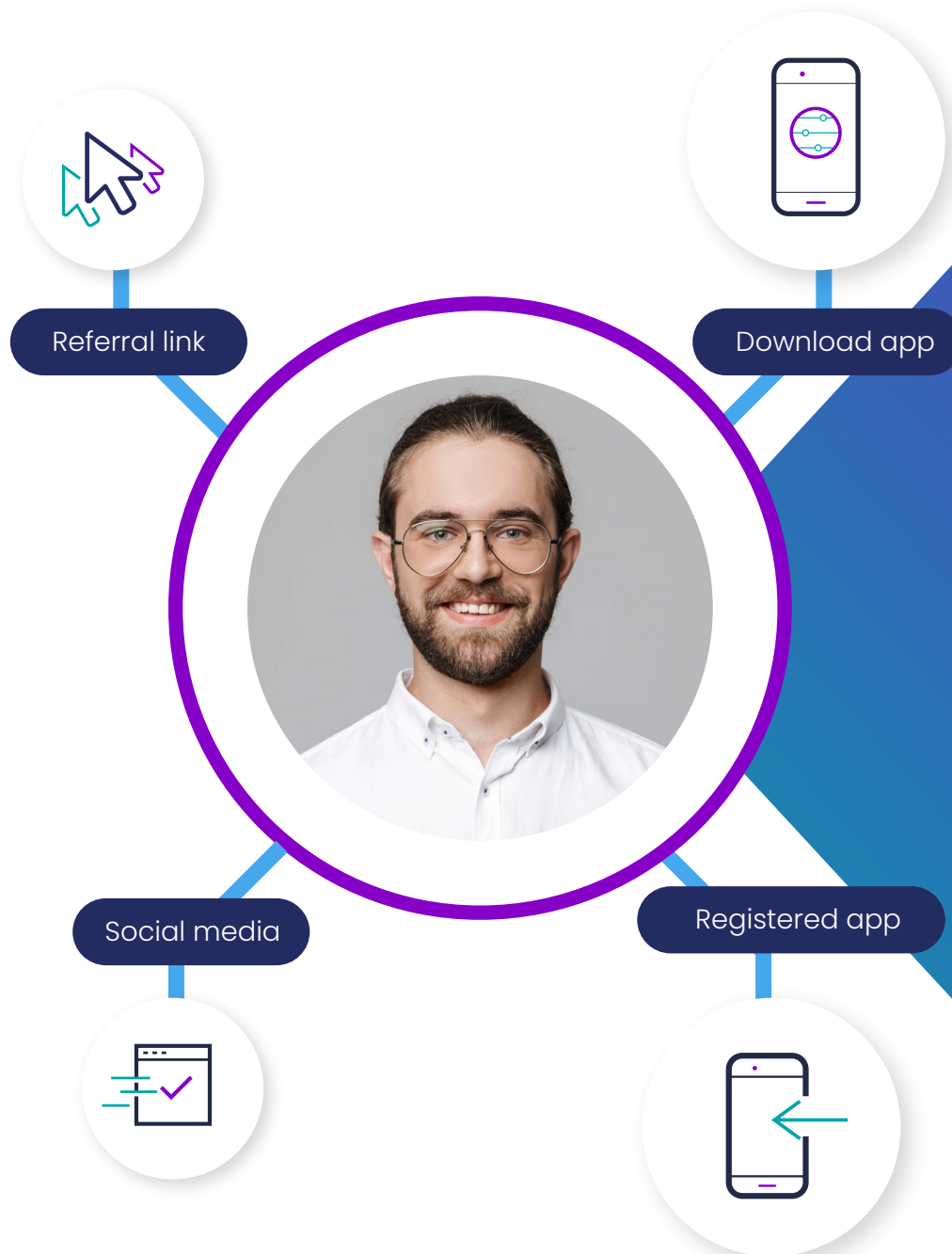
Social

People from referral links are the highest volume...

...but are they the "most likely" to register the app?

People from social links are the best quality

- There are fewer of them, but they are more likely to register
- Best strategy is to get more people from social media
- Quality vs quantity



Behavioural modelling puts you in control

Performing behavioural modelling allows you to examine the behaviours and motivations which drive your customers' journeys. This analysis helps you move beyond just describing customer journeys, to truly understanding and steering them.

Most importantly this allows you to begin understanding the 'why'. Why has someone downloaded your app but not registered it? What behaviours are common amongst those who do and do not register the app, and what marketing activities will help you push more people down the path that delivers the desired outcome more often?

Let's look at another example. A fast food chain wants to increase sales of a certain soft drink.

They create an audience segment that includes customers who haven't yet bought this drink and launch a promotional campaign.

Afterwards, behavioural modelling will be used to analyse which customers changed their behaviour after receiving the communication and are now frequently buying the promoted drink. These customers will be compared against a baseline of those who only temporarily switched to the promoted drink.

Some behavioural features that could explain the differences between customers are:

- The combination of items typically bought by a customer
 - *Were they buying other drinks or no drinks at all?*
 - *Were they buying particular types of other products e.g. burgers, salads or desserts?*
- Were the people who changed their behaviour relatively new customers rather than longstanding customers with established habits?



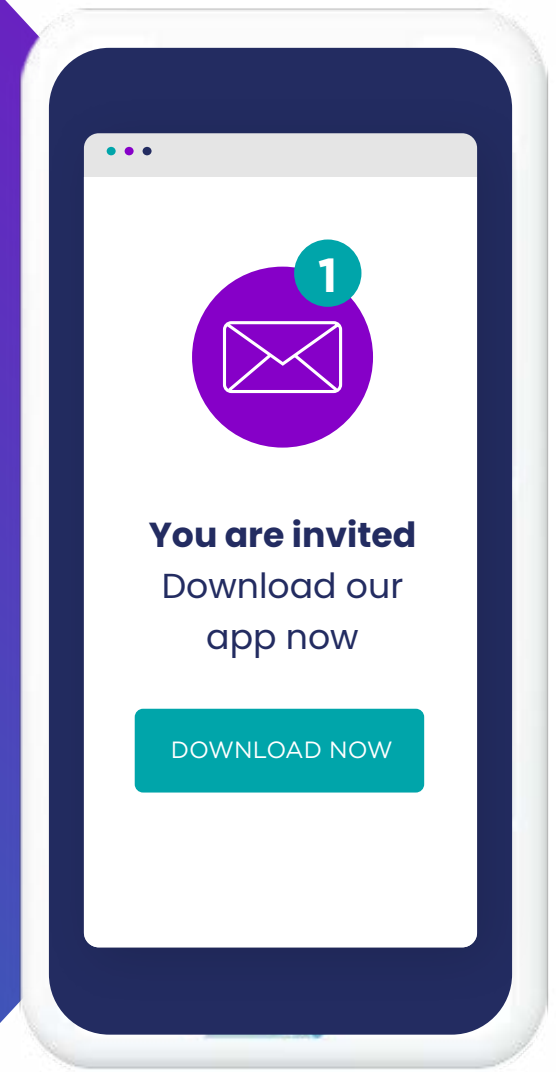
What is stopping marketers from embracing behavioural modelling?

Collecting data is a corporate pastime – but many lack the ability to derive useful insights from that data. Fewer still are able to combine their insights to see the ‘bigger picture’.

Behavioural modelling is not easy. It involves summarising and comparing behaviours along the timeframes in journeys which unfold at different speeds and in different directions for each customer.


Consider the app download example again – you know someone has downloaded and installed your app, but the journey is not necessarily straightforward.

A customer is sent an invite to download your app. They might read the email and take no further action. They may use the invite to download the app on another device. They may download the app but delay registration for weeks or months. They may delete the app, unused, immediately after download.



Each of these scenarios offers an opportunity to reconnect with the customer and nudge them towards using your app. Identifying these crucial areas of the customer journey is incredibly difficult without the right tools due to the following reasons:

- Your data is probably trapped in silos, which makes it difficult to understand holistically the inter-related events in a customer's journey.
- It is extremely difficult (sometimes completely impossible) to turn business logic into selection logic.
- It's also difficult to analyse what each customer was doing during each part of their journey. Can you pinpoint what was different about the behaviour of the people who downloaded the app but did not register immediately? What can you learn from this insight? Can you identify other people who share the same behavioural characteristics? What can you do to bring them back on board, encouraging them to use your app?



Identifying these crucial areas of the customer journey is incredibly difficult **without the right tools.**

How does Apteco help?



There are plenty of solutions available to help you identify who is doing something, and how many others are doing the same thing.

Sankey charts are often used to visualise the 'what'. But with our bespoke behavioural modelling component, Apteco is able to help you understand 'why' they are doing it too – automatically. What would normally be a manually intensive process to link and query multiple data tables can be achieved quickly and seamlessly with Apteco.

Apteco allows you to cut and query data in any way to reveal the insights you want. Granular tools allow you to build segments that are as small as hours or minutes if required. Analytical tools offer both descriptive and predictive capabilities for a better understanding of customer behaviour – and to highlight the difference between the two.



As your data estate expands, you have more information to work with. Apteco is capable of processing huge volumes of data at pace, allowing you to develop insights faster – and to take effective, informed action more quickly.

Apteco is an end-to-end range of applications designed to enhance your marketing intelligence and personalisation capabilities. You can turn data into insights and insights into action from a single suite of highly interlinked tools – or to interact seamlessly with your preferred fulfilment channels.

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about Apteco
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