Cross device identification

How to identify customers across devices and channels

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Cross device customers in a multiple channel world

The main goal of marketing in the modern world is to be able to communicate to individuals in a personalised manner. In order to do that, brands not only need to have information available about those individuals, but they also need to be able to join together the multiple touch points where those individuals engage with them in order to build a more complete picture.

Well-validated traditional marketing processes, such as funnels and lead nurturing, rely on this idea as activity is tailored around an individual and the focus is on progressing the relationship that individual consumer has with the brand.

These days consumers have multiple devices and can engage with a brand (either directly or via advertising) through many of them and at different times. The critical factor here is that consumers don't think in terms of channels. They see one brand, and expect one brand experience regardless of how they engage.

Good tools and solutions have evolved to bring analysis to digital marketing. However those tools, evolving as they have from more traditional marketing processes, still rely on a persistent identifier to track each individual. And this is where we get to the crux - no two channels or devices have the same identifier. To apply these tools, marketers need a link between all those identifiers.

This paper is a technical dissection of some of the approaches that are being used across the industry now, and our own suggestion as to the most effective method.

Declarative definition

A declarative approach is where marketers get consumers to tell them what devices they own, typically via a login process. The option is easy to implement and can be characterised as a “first party” solution, relying as it does only on the brand’s relationship with their consumers. However, there are numerous limitations – not least the work required to transmit this insight to external execution channels. Data must be taken from each log in, mapped and merged into the CRM, and then transmitted out in a consistent manner.

Of course, this approach may not work for many brands. Consumers may not log in, or they may share their log in details and their devices themselves have a limited lifespan. It is easy to see why this solution is sub-optimal.

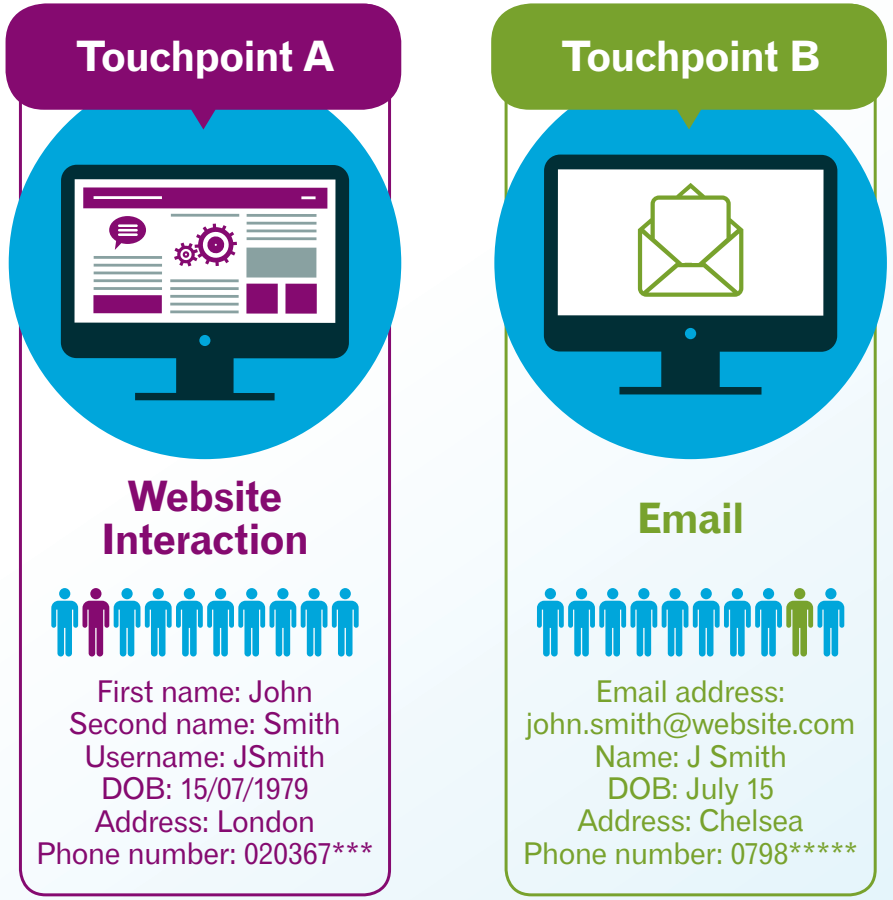
Declarative definition, augmented with a probabilistic match

Using a declarative match is a scientifically valid method of linking together devices. The primary constraint on its effectiveness is largely a question of scale. It is frequently the case that a brand will have a unique identifier for every device that has engaged with it but no way of connecting those together, or linking that device cluster further to a CRM System. This is because there are insufficient declarative links.

Fortunately, every engagement with a brand can be tracked and linked back to a device identifier; and every engagement produces a large amount of "long-tail" contextual and device-specific data which can be tied to that device ID. As the cost of computer processing and storage has fallen, it is becoming more feasible to store all of these data trails and, using "big data" techniques, start to identify meaningful patterns in these long-tail attributes. These patterns can be compared to a "truth set" – a set of devices with known linkage clusters – and meaningful patterns can be established, together with a "weighting" to indicate their statistical significance. A brand can then start to link together devices that match above a certain threshold to cluster devices without relying on a declarative match.

Although this approach largely moves beyond the declarative by filling in gaps using machine learning techniques, it still relies on a truth set of known device clusters. Any probabilistic patterns will be impacted by inaccuracies in the truth set and the relative size of the truth set will determine an upper-bound on the confidence of any pattern surfaced. That is - we have mitigated but not solved the problems encountered when relying on a declarative approach.

Another very practical concern is that to discover meaningful patterns requires the use of very large data sets and while the cost of processing and storage has shrunk, this can rapidly become very expensive. Finally, using this ID in your execution channels relies on a very manual and time consuming approach.



In-Channel solutions

As we've seen from the approaches outlined above, a major hurdle is the transmission of insight to an execution channel. It therefore makes sense to ask whether or not it is possible to use an in-channel solution, or some aggregation of those.

Let's consider the case of Facebook and Google. Both these companies offer perfectly acceptable solutions within their respective "walled gardens". A brand is not allowed to extract these insights and apply them elsewhere, of course; but perhaps it is possible to somehow link together the insight from each into a full picture?

To connect these channel-specific views together we need to link the identifiers used in those channels … which is almost exactly the problem we were trying to solve in the first place. However in this case those channels don't provide even the long-tail data needed to do this. In short, these solutions are designed to live within those walled gardens and it's those walled gardens who get the most benefit from them.

The real solution

The two above approaches both raise many valuable points, so it will come as no surprise that the most effective and efficient solution is a convergence of the two. Let's walk through the thinking:

If I could use my master ID from the declarative matching process, I would be a large part of the way there. In fact, there are tools which allow me to link my consumer data to marketing execution platforms.

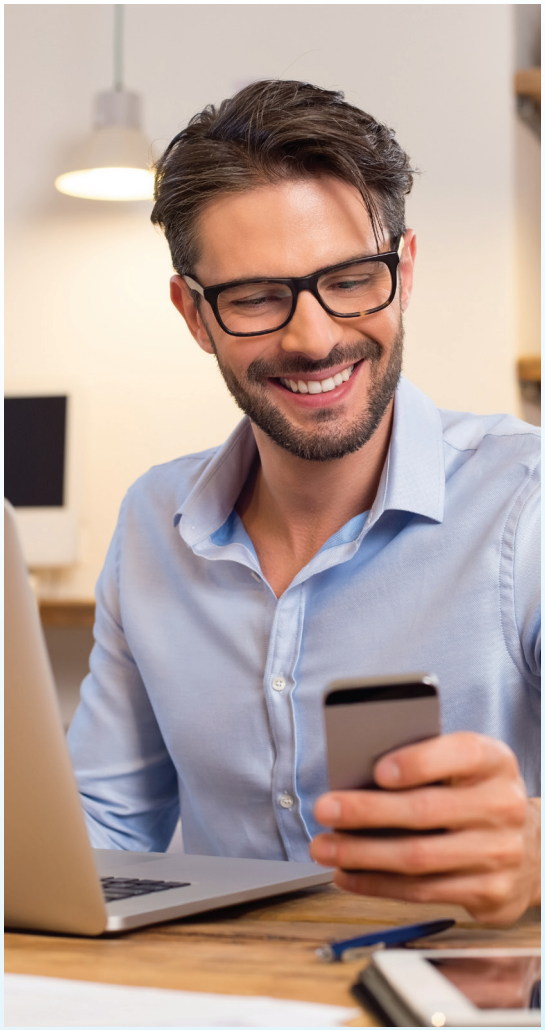
However, I probably need a "smarter" approach than the simple declarative matching process to deal with real-world complexities, including small data sets, not many logins, household owned devices, and so on.

In channel approaches give me great performance data, but I need to be able to map it back to my CRM and ideally from my CRM to other channels. Currently I am not permitted to do this.

Also, advertising is just one use case. What about (for example) dynamic pricing? I definitely don't want the same consumer seeing two different prices for the same product on different devices.

Putting this together, it becomes apparent that there are two problems I'm trying to solve: the linkage problem - or creating that master view of each device cluster and associating it with a CRM record - and the transmission problem, or applying that insight to a given channel.

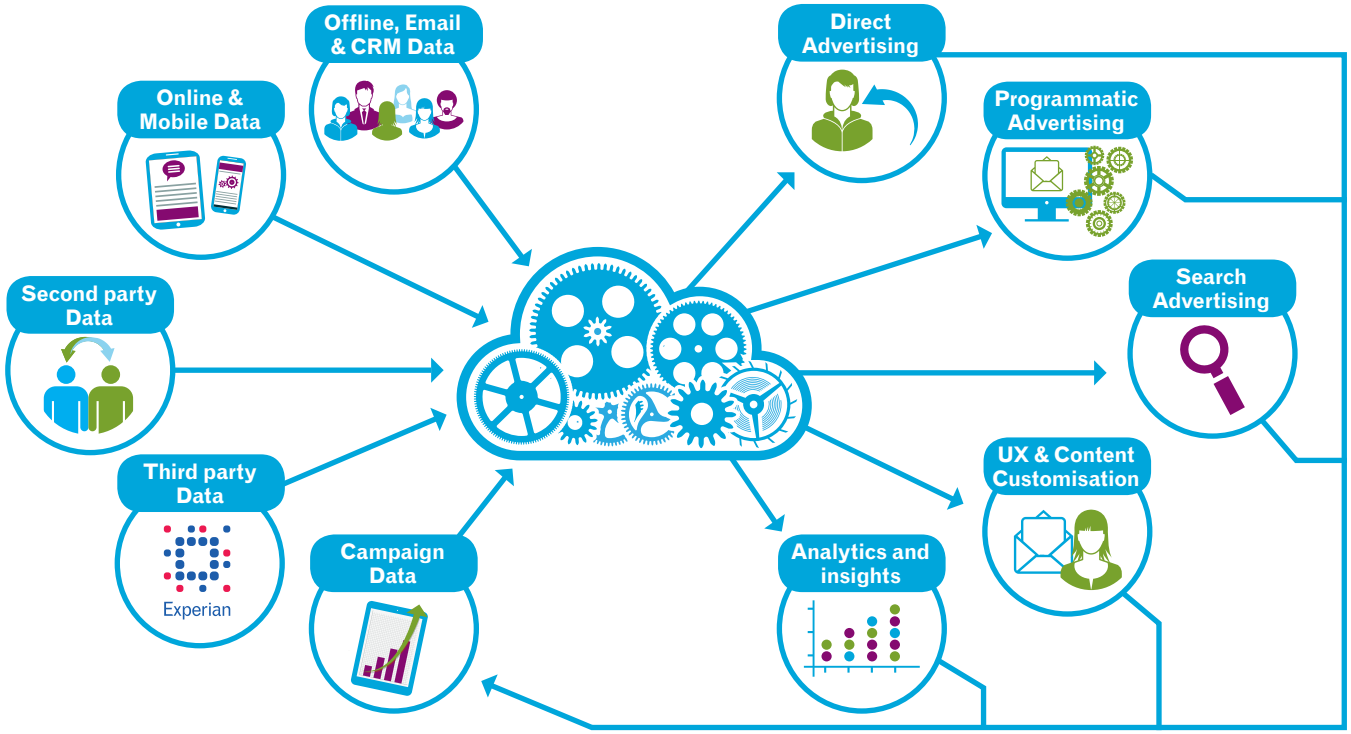
Therefore: the cross-device problem is solved by having the device linkage within the CRM system and using a tool that can transmit that CRM data to any platform I might wish.



Transmitting consumer data: The role of the DMP

As a basic definition a Data Management Platform (DMP) is a piece of software that gathers, sorts and distributes information to assist marketers, publishers and agencies. A DMP allows a brand to apply any consumer data they may have, specifically any CRM data they may have, to any external execution platform, such as an ad server, DSP, dynamic creative optimisation solution, or any other digital marketing tool.

DMPs can house and manage any form of information, however, for us marketers they're most often used to manage cookie IDs to help display online adverts to specific audience segments.



THE 3 ROLES OF THE DMP

1. IMPORT

The DMP takes information from different systems and organises it at an individual customer level (if it's about customers or prospects), or at the cookie level (if the individual is unknown). For instance, this could include customer IDs, email addresses, what they have bought or looked at, or their loyalty status.

2. FIND AUDIENCES AND SEGMENTS

This is where you define your audience (e.g. ladies between the age of 20 and 35, who live in London and like a particular high end retailer) based on knowledge gleaned from your first party data and then – and this is the clever part – the DMP finds lookalikes by synching cookies from different places to help find exactly the right group of anonymous cookies to buy ads against.

3. DISTRIBUTE

This is where the DMP sends an instruction based on Import and Find and is when it needs to be plugged into software (like a DSP) which is able to action findings.

CRM solutions

Modern CRM solutions are designed to hold all consumer data. Whereas traditionally the “consumer” in this context was synonymous with “customer” today it refers to any uniquely identifiable individual who has at all interacted with a brand, including those who have yet to convert.

The persistent consumer ID for each channel or device is broadly speaking the equivalent of a postal address for that channel. Therefore, in the same way that a postal address is an attribute of a consumer, so too is that device ID, and as such logically belongs in the CRM system.

Considering the implications of such a set-up, it is immediately apparent that the following makes most sense:

The link lives outside any individual channel, meaning it doesn’t belong to that channel and I am not constrained in where I can apply it.

A suitable transmission tool – a DMP – can push data from my single consumer repository into any of those channels to inform the decision-making in those channels.

Because I know how those devices are linked, I can meaningfully aggregate data from all of those devices to the consumer level.

Because the CRM system holds the “match table”, I can easily link back all data to my CRM system for analysis.

A CRM linkage solution and a DMP give me the most complete cross-device understanding, the ability to apply that understanding to any consumer engagement on any device, and the insight to understand and manage those engagements at the consumer level. And most importantly, this insight is owned by the brand, allowing them to control where it is used and how.

For more information on DMPs, cross-device identification or how to build online audiences for your marketing efforts, please contact us or visit our website.

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