



Abstract

In this white paper, we explain the concept of identity resolution, its benefits, and how Teavaro can help you to build and leverage your own identity graph. An identity graph allows you to link behavioural with customer, transactional, and usage information. This is the foundation for better personalisation, higher media efficiency, and improved attribution.

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Introduction and Background

In the past, AdTech was based on cookies, and behavioral data based on those cookies was stored in DMPs (Data Management Platforms). Third-party cookie syncing allowed retargeting and frequency capping in paid media. Customer data and customer profiles were built in CRM Systems (Customer Relationship Management) and data warehouses. Customers were targeted by campaign management systems through direct marketing channels like email, SMS, or traditional post. The two worlds were quite separate, as without overlapping identifiers there was no way to stitch the data together.

Marketers soon realised that they could have more relevant communication with their customers and prospects if they had a more complete, 360-degree view across all touchpoints and devices. The concept of a customer data platform (CDP) emerged that intended to bring these separate worlds together. However, in practice, uniting behavioural data from digital channels with CRM and transactional data remains a huge challenge for many companies.

The bad news is that no silver bullet exists to solve this problem. However, more and more companies decide to build their own identity graph to get a more complete view of their customers and prospects.

What is Identity Resolution?

To better understand the concept, we want to define identity resolution – following Forrester’s definition - as:

“Identity Resolution is the process of integrating identifiers across available touchpoints and devices with behaviour, transaction, and contextual information into a cohesive and addressable consumer profile for marketing analysis, orchestration, and delivery¹”.

To fully understand this definition, it is necessary to understand what identifiers are. For this we need to understand the terms personal data and personally identifiable information or PII. Personal data is defined by General Data Protection Regulation or GDPR as

“Any information which is related to an identified or identifiable natural person²”.

This term is significantly broader than Personally Identifiable Information or PII which is defined by the National Institute of Standards and Technology as *“any information about an individual maintained by an agency, including (1) any information that can be used to distinguish or trace an individual's identity, such as name, social security number, date and place of birth, mother's maiden name, or biometric records; and (2) any other information that*

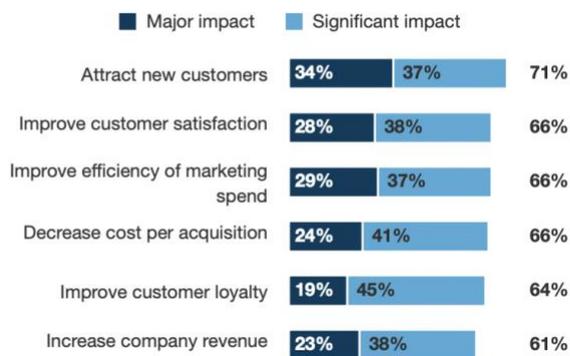
¹ Forrester Research, February 2019, Core Capabilities: Identity Resolution in Modern B2C Marketing

² <https://gdpr.eu/> General Data Protection Regulation

is linked or linkable to an individual, such as medical, educational, financial, and employment information”.

Thanks to Identity Resolution you can link different pieces of data together and this allows you to establish a single customer’s identity from different touchpoints, building an accurate customer profile. Identity Resolution is based on customer consent, across devices and channels. Only by knowing as much as possible about your client can you concentrate and personalise all your marketing strategies to obtaining increased ROI.

“What kind of impact do you believe customer identity resolution has on your organization’s ability to meet its business objectives?”



Source: a commissioned study conducted by Forrester Consulting on 300+ directors of marketing, digital marketing, e-commerce, customer acquisition, data/analytics in USA and UK.

What is an Identity Graph?

Identity Resolution is the process of integrating identifiers into an identity graph. So, it is crucial to understand what an identity graph is. Every activity leaves, across the user’s devices, important data about the customer which if stitched together correctly can become extremely valuable over time.

On average, consumers use four devices each day, and the chances are they will not login on most of these devices. Your analytics tool will likely show each device across one user as a different anonymous visitor.

A person typically has several identifiers such as work and personal e-mail address, a physical address, a mobile and fixed phone number and a customer number which is specific to your business. People can be grouped according to different criteria like belonging to the same household, receiving the services under the same billing account, or belonging to the same company.

The challenge is to link user-level identifiers with device-level identifiers to create an identity graph. Sometimes even device-level identification is confused due to multiple cookies being used across browsers and applications.

When it comes to identity-based solutions it is important to understand from which sources data comes. Typically, the following classification of data is used:

- Zero-party data: this is data the users voluntarily provide to your company. Examples are an e-mail address or a mobile phone number to contact a user or special interest so that you can tailor email information to the users' needs.
- First-party data is the information a company collects directly from its customers and owns. First-party data can be behavioural data collected from your website, app, or social media profiles or transactional and demographic data from subscriptions, purchases or usage of your product and services. In this case your company is the data controller. The data controller determines the purposes for which personal data is processed.
- Second-party data is information that your company did not collect themselves but is essentially someone else's first-party data. An example is an agreement between two businesses to share audience insights. If personal data is processed and the two companies jointly determine 'why' and 'how' personal data should be processed, they become joint data controllers. Joint controllers must enter an arrangement setting out their respective responsibilities for complying with the GDPR rules. The main aspects of the arrangement must be communicated to the individuals whose data is being processed.
- Third-party data is any data that is collected by a business or other entity that does not have any direct link to the visitor or customer. Third-party data is often collected, aggregated, and sold to companies to help them build effective advertising and retargeting strategies. The selling organisation must demonstrate that the data was obtained legally. To be compliant with the General Data Protection Regulation, the user must have consented that the data is used for advertising purposes and the consent should include the possibility to transmit the data to other recipients for their own direct marketing.

Zero- and first-party data are the foundation of any identity-based solution³. While third-party cookies will not be around for long, neither for marketing nor for advertising, there is no indication that first-party cookies are going away. With a first-party cookie, the origin site can still collect and understand first-party data. As first-party data is collected by a company when customers directly interact with its product, marketing campaigns and customers service

³ <https://academy.teavaro.com/course/view.php?id=7§ion=1>

channels, this helps to build strong customer relationships. From the point of view of marketers, they can leverage the trust created with your customers, because customers that interact with your company, giving you their personal information, trust you to deliver what they want.

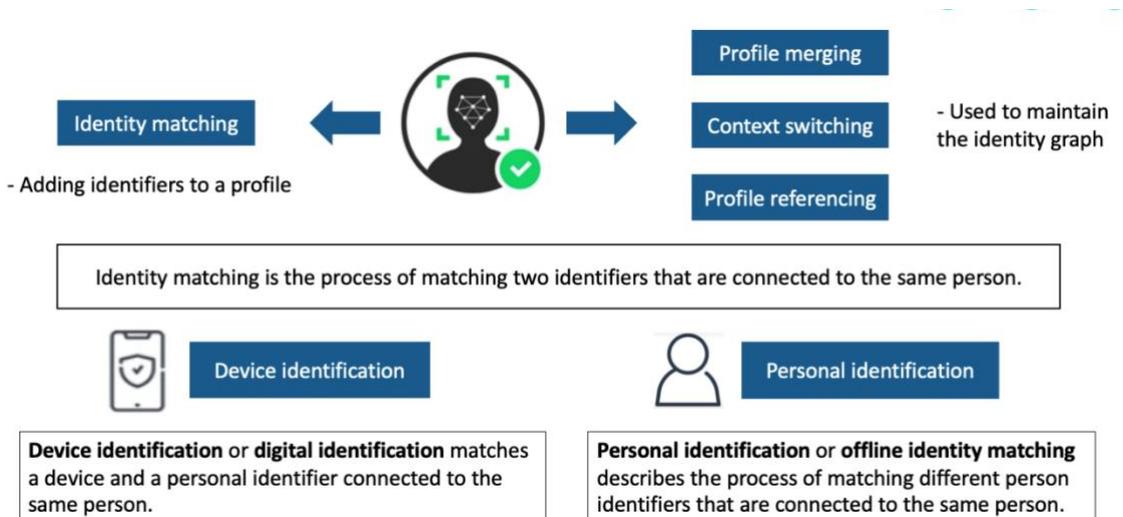
The quality of an identity graph majorly depends on these four factors:

- **Identifier Stability:** the average duration for which an identifier is connected to a person.
- **Identifier Uniqueness:** the degree to which an identifier is the only one of its kind connected to a person and is only connected to that person and not others.
- **Link Accuracy:** the likelihood that an identifier connected to a person identifies the right person.
- **Link Completeness:** the extent to which the identity graph contains all possible connections of relevant persons to their identifiers.

Identity Resolution is a method, based on the identity graph, that links the multiple identities of a single person to one specific individual, allowing companies to gain insights into demographics that can be used, for example, for targeted marketing. The identity graph is used to collect and analyse data for a user journey and the customer profile can help define meaningful customer personas.

The scramble to find an alternative to third-party cookies has slowed down since Google announced they will be delaying their cookie removal until late 2023. However, this gives marketers a unique opportunity to take advantage of the additional time and feel more prepared and confident in their solutions.

In this image we simplify how an identity graph matches identifiers:



Source: www.academy.teavaro.com

Identity Resolution and Personalisation

Following the new Deloitte research called “*Embrace Meaningful Personalisation to Maximize Growth*”, 71% of business-to-consumer leaders say personalisation has a significant impact on their brands’ strategies, and 58% of companies planned to increase their spend on personalisation in 2022⁴. So great personalisation is about meeting customers in the right moment and context, treating customers as unique people. Customers care about their human and personal experience, especially in the virtual world where it is easy to lose this dimension: it is not easy to connect the right message, to the right person, in the right moment, with the right offer, through the right channel.

For simple personalisation strategies you do not need an identity graph with device and personal identifiers. Examples of this include an email that uses a person’s first name or is sent on the person’s birthday, or a simple retargeting such as a user seeing an advert for the same product they have previously viewed on a company’s webpage while interacting with a social media site.

However, if you want to combine behavioural, transactional and contextual information personalization needs to be powered by an identity graph. In the following table you can see the information category and the meaning of each information that contribute to accurately personalise your customer journey.

Information Category	Definition	Typical Sources
 Behavioral Information	Information about <ul style="list-style-type: none"> • What the user likes • Page views on a website • Social media activities 	<ul style="list-style-type: none"> • Web and app tracking • Social media interactions • Product or service usage
 Transactional information	Information about <ul style="list-style-type: none"> • Buying and selling like • Purchases of products and services • Payments 	<ul style="list-style-type: none"> • CRM • E-commerce Systems
 Contextual information	Information that <ul style="list-style-type: none"> • Describes the context of an activity • Helps to proactively guide the customer to the next best interaction 	Systems that offer context of time and location like <ul style="list-style-type: none"> • Weather, • Traffic • Events • Place

Source: www.academy.teavaro.com

⁴ Embrace meaningful personalization to maximize growth, Deloitte report, July 2022

Companies with high maturity in customer personalisation can double their customer engagement, compared to brands with low personalisation maturity. This is reflected not only in personalised e-mail or other marketing strategies, but in consistent personalisation in all relevant channels along the customer journey including social media, display advertising, website and in-app ads.

Benefits of Identity Resolution

The benefits of Identity Resolution for the customers are more relevant interactions and better customer experience. The company benefits by growing the bottom line through additional revenues generated by incremental sales to prospects, existing customers, and improving retention.

In addition, it helps to use media spend more efficiently by optimising media mix and campaign performance, and reducing media wastage.

Although Identity Resolution can be beneficial for specific use cases, its real power is created by a self-reinforcing loop: more relevant interactions with the customer and better customer experience lead to increased customer trust and brand loyalty. A customer who trusts a brand is more willing to share personal data and interacts more with the business which creates more data points across devices and touchpoints. This additional information improves the quality of the identity graph and the resulting customer profile.

This increases the company's ability to correctly measure at a user level what works for the customer and what does not. This information can be used to further improve customer interactions and customer experience.

In the image below you can see how we reach the benefits of Identity Resolution, especially how identity resolution supports cross-channel orchestration through frequency capping, audience overlap analysis and customer journey analysis.

Frequency capping is a term in advertising that means restricting, or 'capping', the number of times (frequency) a specific visitor to a website is shown a particular advertisement.

It is the most basic, universal control for digital advertising. It is essential to improving user experience, advertising effectiveness, ad quality and brand safety.

Technically the challenge is to determine whether an advertisement was served to the same person across devices and publishers. This is only possible if the identity graph is cross-device and cross publisher. An identity graph is a key enabler for qualitative Customer Journey Analytics as it is the only way to collect meaningful data across devices and touchpoints:



Source: www.academy.teavaro.com

To conclude Identity Resolution is a marketer's tool, that allows to target more effectively, offering an efficient marketing strategy, resulting in higher conversion rates. It is a technique applicable to different business, from online to offline business, from retail to finance, being very common in banking ⁵.

We want to share with you how our clients resolved more identities using our platform, compared to other solutions or technologies. These case studies are based on our clients' experience:

⁵ IT Chronicles, Carolina Smith, November 17th 2021

Case- Study 1:

Identity Resolution benefits

The client already had a “simple” identity resolution solution in place by linking customer login information to the first party cookie on the website. This is typically what can be achieved using a website analytics tool or a CDP with limited identity resolution capabilities: in 30 days the client could resolve 6.9 million identities. This allowed him to resolve 15% of the page views.

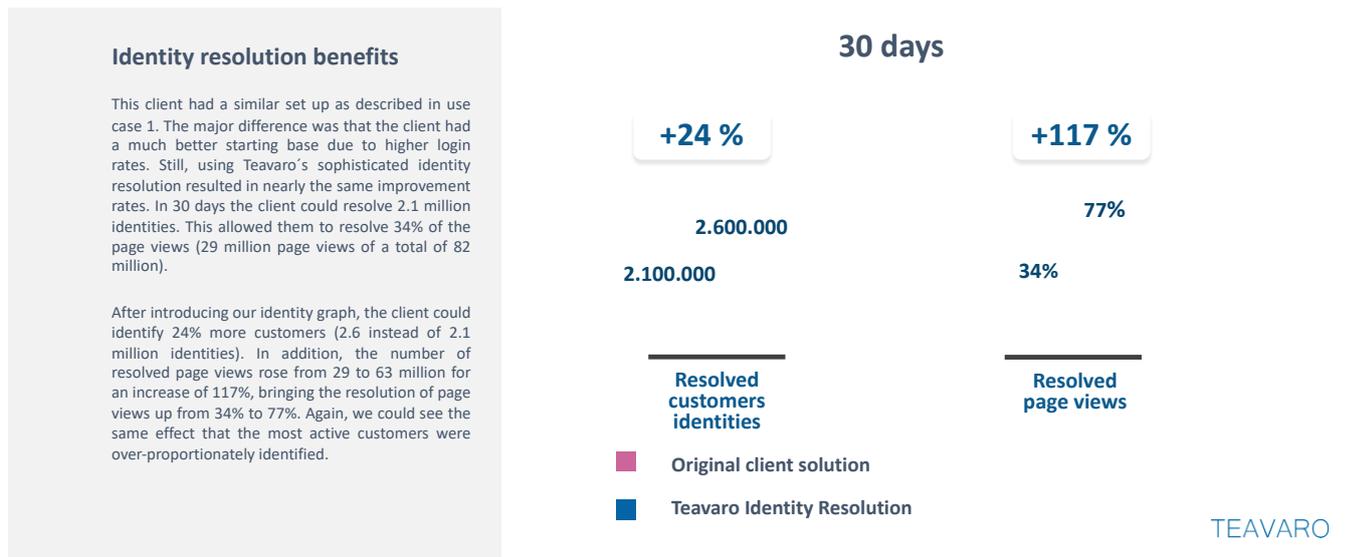
The client is a multi-brand multi-category company with different domains. He introduced our multi-domain identity resolution leveraging the login information from another website. With only this one additional identity resolution methods the client could identify 26% more clients (8.7 instead of 6.9 million identities). What was even more impressive is that the number of resolved page views rose from 71 to 167 million an increase of 135% bringing the resolution of page views up from 15% to 35%. This clearly indicates that the most active customers were over-proportionately identified.



As a result of these improvements, the client got more customer profiles with behavioural web-tracking data. The enriched customer profiles then were used for better onsite personalisation, and better match rates with Google and Facebook that allowed them to use paid media budgets more efficiently.

On top of this consistent increase of addressable customer audience, across different sites, Identity Resolution also collects more than twice the number of page and product views against known customers, enabling more personalised content based on customer information.

Case- Study 2:



There are many challenges that most companies are facing, especially when they do not want to put a login barrier at the beginning of the customer journey on all their media and they cannot identify customers across domains. These problems result in limited personalisation, media wastage and incomplete attribution. What makes Teavaro different is that our solution creates your own identity graph, increasing the number of consented digitally identified customers and prospects. Based on this Teavaro helps you to close the holes in your customer experience, increasing the value of each identified customer and prospect. Moreover, where browser cookie (including 1st party tracking cookies) and local storage restrictions affect analytics and other tracking solutions with 24h to 7-day limitations, Teavaro's Identity Resolution is not affected, and identifies returning users after more than 7 days.

If you are interested in finding out if your company can benefit from Teavaro's identity resolution solution, schedule a free assessment with one of our growth consultants to:

- find out how many customers and prospects you could digitally identify and
 - discover the resulting benefits for personalisation, media efficiency, and attribution.
- Link: <https://teavaro.com/assessment/>