Contents

04 Executive summary

11 Introduction and definition

13 Why personalization matters
   » Customer expectations have changed
   » Personalization delivers ROI

15 Scales of personalization: segmentation and customization

18 The process of personalization
   » 1. Identity
   » 2. Content
   » 3. Delivery

26 Channels
   » Ads
   » Web
   » Mobile
   » Email

42 Real-time matters

44 Recommendations, vendors, and the future
   » The connection between personalization and analytics
   » Consumer personalization concerns
   » Conclusion
50 Appendix: vendors interviewed

» Autopilot
» Avari
» BlueConic
» BlueShift
» CallidusCloud
» Certona
» Criteo
» Demandbase
» Evergage
» Experian Marketing Services
» H2O
» Integrate
» Intercom
» Janrain
» Lattice Engines
» Lytics

» Netprospex (Dun & Bradstreet)
» Optimizely
» Sailthru
» Salesforce Marketing Cloud: Predictive Decisions
» SAP Hybris
» Segment
» SDL
» Tealium
» Hubspot
» Kenshoo
» Monetate
» Reflektion
» Thunderhead
Executive summary

These are early days for many forms of personalization, but there is now substantial evidence in the form of data and case studies – both of which are included in this report – that personalization works.

Our survey of 506 marketers finds that between 70% and 94% have seen an increase in the effectiveness of various key metrics by employing personalization. The specific percent increase depends on individual metric, and this excludes those who say it’s “too early to tell,” but the numbers are impressive nonetheless:

Several case studies highlight impressive effects of personalization applied in various ways and channels:

- Microsoft dropped bounce rates by 35% and increased add-to-cart rate by 10%.
- O’Neill increased conversions by 46% with web personalization.
- Alex and Annie has seen a 73% lift in monthly email revenue.
- Gamestop saw a 41% increase in average order value (AOV).
But personalization is different in each channel. In ads, web, mobile, and email -- the channels where personalization matters most -- customer data and engagement vary, as do customer expectations.

For one, marketers have different objectives for their personalization efforts:

![Chart showing the top business objectives for employing personalization.](chart)

The top objective by far is reaching more prospects.
Yet in spite of that, we found that efforts are not heavily focused on the top of the funnel, where we would expect to reach more prospects. Instead, you can see that efforts are spread more evenly throughout the sales funnel.

Why is that?
Although we may think of the sales process as “top-down,” most companies implement personalization with a bottom-up approach. That is, most companies begin their personalization efforts based on “known” prospects or customers. The channels where personalization is being employed reinforce this finding.

Email is the dominant channel for personalized content, yet is often limited to field insertion (e.g. “Dear <name>”). Most personalization efforts are also based on transaction history and limited demographic data, meaning personalization is not done to a high degree in most cases.
We also found that speed matters. Interest, it seems, has a half-life. SAP Hybris tells us that after 12 hours, 70% of interest is gone. Real-time behavioral data will play an increasingly prominent role in personalization efforts across channels.

Real-time behavioral data is typically more valuable than other data sources, and also getting easier to collect and use. As a result, web personalization tools, which focus primarily on this behavioral data, are becoming “omnichannel” personalization tools – that is, the foundation for personalization in other channels as well. Even email, where real-time would seem to matter less, is seeing substantial KPI increases with the addition of real-time behavior data.
What data sources are being used for personalization today?

First-party data is growing in importance and third-party is being viewed with increased skepticism. As Data Management Platforms (DMPs) and other tools enable marketers to use their first-party data where third-party data was once the only option, a combination of behavioral and historical interaction data will be increasingly applicable to all channels from top to bottom of the sales funnel.

The process of personalization consists of three key parts: identity, content, and delivery. Companies able to align these three components unlock the ability to personalize the customer experience. However, each element varies by channel. We look more closely at the process and each channel in the report. We’ll also help you get started.
Findings in this report come from:

- Survey of 506 marketers about personalization and customer identity
- Interviews with 30 vendors and brands:
  1. Autopilot
  2. Avari
  3. BlueConic
  4. BlueShift
  5. CallidusCloud
  6. Certona
  7. Criteo
  8. Demandbase
  9. NetProspex (Dun & Bradstreet)
  10. Evergage
  11. Experian Marketing Services
  12. H2O
  13. Hubspot
  14. Integrate
  15. Intercom
  16. Janrain
  17. Kenshoo
  18. Lattice Engines
  19. Lytics
  20. Monetate
  21. Optimizely
  22. Reflektion
  23. Sailthru
  24. Salesforce
  25. SAP Hybris
  26. SDL
  27. Segment
  28. Tealium
  29. The La Jolla Group (parent co. O’Niell & Metal Mulisha)
  30. Thunderhead
Introduction and definition

Personalization is the single most important capability for future marketing efforts, according to marketers themselves.

There are two reasons for this.

1. Customer attitudes have changed (for more details, see our related report on the topic). They are overwhelmed by messages, have shorter attention spans, and are blocking marketers out -- turning off notifications, unsubscribing from emails, and blocking cookies and ads. Consumers increasingly expect and engage with personalized messages and experiences.

2. It’s effective: personalization increases key metrics like clicks, open-rates, and conversions, often by substantial margins. For example, these companies employed various types of personalization:
   - Microsoft dropped bounce rates by 35% and increased add-to-cart rate by 10%.
   - O’Neill increased conversions by 46% with web personalization.
   - Alex and Annie has seen a 73% lift in monthly email revenue.
   - Gamestop saw a 41% increase in average order value (AOV).

But what does personalization really refer to, and how is it done?

First let’s define it:

Personalization is using technology to tailor messages or experiences to the individuals interacting with them.

The process varies at every step of the customer journey, however. There are more channels and devices to reach customers than ever, and each is different. For example, personalizing display ads is different from personalizing emails or a mobile app experience.
In each case, the data, content, and delivery mechanisms vary. Plus, each company is different, as are its customers. As a result, each company will have a unique customer journey and corresponding technology stack.

This report provides an analysis of personalization throughout the customer journey.
Why personalization matters

CUSTOMER EXPECTATIONS HAVE CHANGED

Many of the most innovative and loved companies in recent history -- Amazon, Facebook, Google, Netflix, Pandora, Spotify, Hulu -- have disrupted prior industry leaders and created hundreds billions of dollars of value.

How have they done this?

These companies’ business models are largely based on leveraging user data to serve personalized content or services. They deliver what we want, when we want it.

As a result, consumer expectations have been transformed. There is growing pressure for other companies to deliver more relevant products, services, and messages now, too.

Yet while 86% of consumers are willing to pay a premium for a better experience, only 1% feel that their expectations are consistently met.
PERSONALIZATION DELIVERS ROI

Jamie Beckland, VP of Marketing at Janrain says, “I think we’re in the trough of disillusionment when it comes to personalization.”

Without doubt, these are still early days for many forms of personalization -- in fact, a large number of respondents said it was too early to tell whether their personalization efforts were yielding results. That said, a substantial number have seen at least nominal, if not altogether impressive, results. It’s not just select case studies -- over 50% of marketers have seen at least some increase in their KPIs by employing some form of personalization.
Scales of personalization: segmentation and customization

Personalization is done on two important scales: segmentation and customization.

Segmentation is based on customer data and “identity,” whereas customization relates to content.

**Segmentation** ranges from none or very little (no segments, or just a few) to “individualization” (every single person gets a unique message or experience, even if it’s very similar in most ways).

**Customization** ranges from none or little (everyone sees the same content) to a high degree (every segment may see different copy, images, navigation, products, etc.)

A high degree of segmentation can be done with little customization: everyone might get a “unique” email addressed specifically to them, with their name, but everything else might be the same.

Customization, on the other hand, may be done to a high degree, but apply to a very limited number of segments.

Both can be effective, but personalization moves along a scale of both. Looking at a graph of the two, personalization maturity and effectiveness increase up and to the right -- see the figure below.
SailThru, an “omnichannel” personalization vendor, has a slightly different maturity model that it associates with revenue. This “maturity curve” shows different methods of personalization in relative order of difficulty and ROI. Field insertion is relatively easy, for example, whereas adding demographics requires integrating additional audience data. The addition of behavioral recommendations, which might be based on viewed content, requires tracking those behaviors in the first place. Each step is a bit more challenging, but often makes orders of magnitude more effective.

One of the key “up-and-to-the-right” factors in both charts is scale, achieved through automation and/or machine learning. Personalization is normally rules-based at first and then algorithm-based.

**Rules-based**: This involves manually specifying “rules,” or certain criteria, for how segments should be created within your broader audience. For example, specifying that everyone who has ordered over $500 is added to a VIP segment.

**Algorithm-based**: This automated approach relies on technology to identify segments or individuals. For example, this user has looked at 4 pairs of red shoes, so he’s probably interested in red shoes.
Even these two categories can be further broken down. We will look at how these differ as we take a closer look at each individual channel.

First let's look at the process of personalization.
The process of personalization

The fundamental process of personalization has three parts:

1. **Identity:** understand the target recipient

2. **Content:** develop content relevant to that target

3. **Delivery:** deliver that content to the target

You can also think of this as *who*, *what*, and *where*.

Each step in this deceptively simple process varies substantially across channels, though.

The greatest challenge for most companies today is without doubt identity.

1. **IDENTITY**

Charles Nicholls, SVP product strategy for SAP Hybris sums it up well: “In order to personalize, you have to understand the individual. That’s stating the obvious, but it’s very, very hard to do.”

Identity is not a simple concept.

In social science, “identity is... both relational and contextual, while the act of identification is best viewed as inherently processual.”

In other words, understanding identity is an incremental process of learning more about an individual’s features, thoughts, context, and behavior over time.

This holds true for a marketer or machine trying to understand an individual, too. Some data points are simpler, more commonly used, or available than others -- like name and email address. Other identity-related data may be more complex and less easily available, such as psychographics, which indicate how someone thinks and feels about certain topics.
The challenge of understanding a prospect’s or customer’s identity has two parts:

**Data collection** - picking up the digital breadcrumbs from each customer interaction

- 80% of consumer-facing companies don’t understand their customers beyond basic demographics and purchase history.

**Data unification** - tying together customer details from various databases

- 96% of marketers say that building a comprehensive single view of customers is a challenge.

And this process varies depending on the data types and channels involved. The figure below shows some of the more common identity data points used for personalization.
Some data also offers more insight than first meets the eye.

Location is not just absolute -- a zip code and city -- but relative. For example,

- How close to a store or competitor’s store are you?
- Are you in a specific delivery zone?
- What’s the weather where you are, and should we show different products as a result?
- What’s the population density and what are the demographics?
- Are you in an affluent area, or a particular sports team’s home ground?

Details about your device, which accompanies every request your browser makes, may also tell more about users. For example, Orbitz experimented with showing Apple users more expensive hotels than those shown to Windows users, because the company had found Apple users spent 30% more on average.

On web and mobile, real-time behavioral data is most important for personalization. Personalization is most effective in those channels when personalization is done in real-time, which depends on real-time data. Real-time behavioral data provides increased contextual relevance, yet a small minority of marketers is doing so today.
Historical data is most commonly used for personalization, especially for email campaigns. The graph below shows commonly used historical data sources.

Whereas historical data looks exclusively at the past, a combination of data types can also be combined with algorithms or machine learning to predict future behaviors as well.

And all of this only relates to first-party data. Additional second- and third-party data is also available, as are a number of vendors that can enrich your customer records.

The topic of identity is too complex for a short section here; to read more about collecting and unifying customer identity data -- including relevant technology across different data types and channels -- see our report: **Identity and marketing: Capturing, unifying, and using customer data to drive revenue growth.**
2. CONTENT

Content strategy has become increasingly important, especially as more companies focus on inbound marketing rather than just push marketing.

Many companies want to make their content strategy personalized, but efforts to do so often skip step one, which is understanding the target audience or individual who will interact with the content. Content without audience insight cannot be personalized.

However, once a company understands the target audience, the right content needs to either exist or be created (and then delivered, which we’ll look at next).

In some cases, content is manually selected for specific segments. Think about a snow shop that caters to skiers and snowboarders. They may have two different emails for a winter sale, each with different copy and images. More than likely, that content must be newly created, or at least newly assembled. (There could also be some dynamic content elements, like the customer’s name and possibly some of the recent products she has looked at, if the company was able to capture and connect that information.)

In other cases, the customer experience may be entirely dynamically assembled from existing content. This is most often the case in web and mobile, where a visitor or user engages in real-time. It’s common for web personalization tools to integrate with web Content Management Systems (CMS) and/or the ecommerce product catalog.

Several CMS tools, like Sitecore, Kentico, and Adobe Experience Manager, have rules-based personalization capabilities on their own. These can be based on geo-location, search terms, referrals, and additional integrations. Some ecommerce vendors, like Magento, also have product personalization capabilities.

Personalization might mean a difference in written copy, visuals like images and video, products, or even the navigation structure or functionality.
3. DELIVERY

After we understanding identity and we have content, the final step to personalization is delivery -- getting the right content to the right person, ideally also at the “right time.”

Where are marketers delivering personalized content today? Email leads by far.

Although we may think about the sales process and “identity funnel” as top-down, most companies implement personalization beginning at the bottom. That is, most companies begin their personalization efforts based on “known” prospects or customers, toward the bottom of the sales funnel.
That’s because known customers are the targets that companies have the most data about. Plus, for many companies a majority of revenue comes from existing customer base. That makes known customers low-hanging fruit, relatively-speaking, when it comes to delivering more relevant messages.

However, targeting just known consumers excludes an awfully large percentage of an audience that could be converted more effectively. Most prospects are anonymous, after all.

On the B2C side, 95-98% of visitors don’t log in to ecommerce until they’re ready to purchase. B2B prospects typically go through 57-90% of the buying process before the seller knows who they are.
Very few companies employing personalization tactics do so only for anonymous targets, which is confirmed in our research (see graph above). Yet that finding is at odds with the top-ranked business objective people say they plan to use personalization to affect: reach more prospects (see graph below).

Most prospects are, by definition, not yet known to you. As targeting and personalization capabilities for anonymous prospects (at the top of the funnel) become easier to employ and use, expect investment and usage to increase significantly (more on specific channels later in the report).

For email, tools for delivery include primarily email service providers and marketing automation vendors. We’ll look at tools in greater detail as we look at each specific channel.
Channels

The primary channels that can be personalized, and that we will look at, are: 1. ads, 2. website, 3. mobile, and 4. email. Search and social are limited when it comes to personalization capabilities outside of advertising.

This order also corresponds with the traditional funnel, with ads at the top and email toward the bottom. The types of data also correspond to that funnel, with anonymous, mostly third-party data at the top, and known, first-party data at the bottom. The types of data are significant for user profiles, which again are covered in greater depth in our report on Identity and marketing: Capturing, unifying, and using customer data to drive revenue growth.

<table>
<thead>
<tr>
<th>Anonymous vs. known</th>
<th>1st vs. 3rd party</th>
<th>Historical vs. real-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ads</td>
<td>Anonymous</td>
<td>3rd party (+1st party)</td>
</tr>
<tr>
<td>Web</td>
<td>Anonymous &amp; known</td>
<td>1st party</td>
</tr>
<tr>
<td>Mobile</td>
<td>Anonymous &amp; known</td>
<td>1st party</td>
</tr>
<tr>
<td>Email</td>
<td>Known</td>
<td>1st party</td>
</tr>
</tbody>
</table>

ADS

There are many examples that show a huge ROI of personalized ads. But some studies have shown that retargeting at the wrong point in the customer journey can also backfire.

To understand how to effectively personalize ads, you first have to understand a bit about how advertising works.
Ad networks

Ad networks use third-party cookies to track consumers across websites. They can build profiles of what sites we've visited and what products we've viewed and bought to personalize content to us based on behavioral targeting. Ad networks include Google AdWords, Yahoo Publisher Network, and Microsoft/Bing Ads. See how Google explains it:

**Ad targeting**

**How Google infers interest and demographic categories**

As users browse our partner websites, Google stores an advertising cookie in a user's browser to understand the types of pages that user is visiting. This information is used to show ads that might appeal to your users based on their inferred interest and demographic categories.

For example, if a user browses many sports-related websites displaying AdSense ads or watches sports-related videos on YouTube, Google may associate a sports interest category with their cookie and show the user more sports-related ads. Similarly, if the sites that a user visits have a majority of female visitors (based on aggregated survey data on site visitation), we may associate the user's cookie with the "female" demographic category. We may also use demographics from Google profiles.

Demand-side platforms (DSPs)

DSPs, which enable real-time bidding on ads and are a foundational element to programmatic advertising, all use some form of IP address intelligence for their audience targeting offerings. These include Mediamath, Turn, and Infectious Media.

Data Management Platforms (DMPs)

With DMPs, ad technology and marketing technology are now merging, too. That is, the anonymous, cookie-based universe of advertising and known, email-based universe of marketing are coming together. DMPs allow marketers to match internal, first-party data with paid advertising. Not only does this mean ads can be better targeted and personalized by incorporating first-party data, but advertising and marketing can be better coordinated, delivering more consistent messages across channels as well.
Some DMPs are part of a service and in others they facilitate “DIY” (do it yourself) data management. The former group includes vendors like Demandbase, Terminus, or AdRoll. These vendors will allow you to use your marketing data, but will take care of ad placement for you (they may also incorporate additional data, like Demandbase, which leverages a massive database of IP addresses to target specific companies you can choose by name or industry).

Companies placing their own ads will need a self-serve DMP like Oracle’s BlueKai, eXelate, or Krux.

DMPs enable better targeting and coordination between advertising and marketing messages. Let’s say someone is in the assessment stage of a sales cycle, for example. You may send them emails explaining why your product addresses the specific need they’ve shown interest in. But ads should be just as specific, aligning with the same message.

**Custom and lookalike audiences**

Another way to reach existing, known marketing contacts is through “custom audiences.” For example, if you know that a user has a 90% likelihood to convert, but only a 7% likelihood of opening an email, you may want to target them with an ad. Facebook, LinkedIn, Google, and even Twitter have such options (although data available for targeting obviously varies). Here’s how Facebook explains it:

---

**Target Facebook Ads to people on your contact list**

It’s easier to sell to current customers than to look for new ones, so strengthen your existing connections by using Custom Audiences. We'll compare your data with ours to help you find the people you know on Facebook.

If you have a customer list or data from your site, like purchaser email addresses, you’re ready to get started.

Once you create your Custom Audience, your information will be encrypted to protect customer relationships and you'll be set to reach more people on Facebook.

_Create Audience_
A related option is “lookalike audiences,” which enables marketers to find more prospects’ attributes similar to existing customer segments. Companies tend to identify their highest Life-Time Value (LTV) customers, for example, and then use lookalike audiences to find more.

Advertisers may turn to a third-party for ads directed at custom or lookalike audiences -- JackThreads tapped SailThru to do this, for example. It’s not necessary to do so, but doing so requires an investment of time and energy.

To avoid the redundancy of doing this across networks, Marketo recently announced Adbridge, which facilitates this process from within Marketo.

Most advertising today remains based on third-party data, but first-party data will play an increasingly prominent role as ad-tech and martech continue to merge.

In fact, Jim Spanfeller, the former head of the Interactive Advertising Bureau, believes that the programmatic ad ecosystem is broken: opaque and clumsy for dealing with ad fraud. As a result, he says that third-party data is essentially useless. That point is debatable, but it's clear first-party data is becoming increasingly important.

**Examples**

Beyond the Rack, a membership, discount shopping club, partnered with Kenshoo to drive new members via Facebook ads at the best possible cost-per-acquisition (CPA) while improving return on ad spend (ROAS). By increasing the scale of targeted ads, the company was able to achieve nearly 3x ROAS.
DocuSign used Demandbase to increase sales pipeline by 22% by targeting specific companies by name. Demandbase’s has associated millions of IP addresses with specific companies, which enables this specific targeting.

Sony used Criteo and saw their conversion rates more than double year-over-year, while their cost of sales decreased by 15%. Sony also saw a 281% increase in revenue at a 74.6% lower cost of sale year-over-year during the ultra-competitive period from Thanksgiving to Cyber Monday.

Jackthreads worked with SailThru to achieve a 6.8x increase in ROAS for dormant buyers and a 7.7x increase in ROAS for lapsed buyers.

WEB

As previously discussed, many companies begin personalization efforts with email, because it targets “known” individuals and thereby leverages existing data. Most companies also find ads relatively easy to personalize, at least to a degree, because the likes of Google and Facebook make it relatively easy to use their data and target by specific attributes.

However, fewer companies venture into the realm of web personalization. Yet, as we know, the vast majority of website visitors are anonymous. Only for membership sites, which require logging in, does this really change. (In those cases, the same “known” data can be used, but few companies are in that position.)
At best, some companies have employed A/B or multivariate testing. Optimizely, a vendor known primarily for A/B testing, likens personalization today to A/B testing in 2009: some companies were doing it, but it wasn’t widely adopted or easy to do at the time. Today, though, “if you’re not testing, you’re throwing away your money,” the company says. The company believes the same will be true for web personalization in a few years, and recently announced new personalization capabilities.

In many ways, web is the hardest channel to personalize. Many companies have half a dozen vendors contributing to the web experience. There’s no point of integration for the Content Management Systems (CMS), ecommerce, applications, search, merchandising, or other technologies. These tools don’t touch each other in any database – only in the browser when they touch the customer. Web personalization takes place at that moment of interaction.

Those tools designed specifically for web personalization are just as much for behavioral tracking as content delivery because understanding identity, assembling content, and delivering the experience all happen in typically less than 50 milliseconds.

These tools collect, and personalize based on, primarily on-site behavioral data.

They may start with IP address, which may provide geo-location, industry and company, as well as referring source (what campaign brought them to the site), and other browser data that may be useful. They also integrate with a CRM or ecommerce system. Some, like Evergage, also integrate with data vendors like LiveRamp, so you can anonymize but use your first party data, or DMPs, so you can bring in the visitor’s broader web browsing activity. But for the most part, these tools rely on the real-time actions you take while on-site.
Through a combination of explicit behavior data and implicit interest data, web personalization tools build visitor profiles -- a process also referred to as “behavioral profiling.” These profiles can then be used for personalization in a variety of ways. Sandy Hathaway, CMO of Avari, a vendor that uses web behavior primarily to enable email personalization, spells out some options in a recent article:

- **Item Hierarchy**: You bought a set of golf clubs, therefore you also need golf balls
- **Attribute Based**: You like action-packed, non-violent, science-fiction movies with a strong female hero
- **Collaborative Filtering with User-User Similarity**: people like you who bought opinionated t-shirts also bought fashionable combat boots)
- **Content-Based Filtering with Item-Item Similarity**: “Kill Bill” is similar to “12 Monkeys” therefore you will like watching it
- **Social+Interest Graph Based**: your friends like Angry Birds so you'll like Angry Birds
- **Model Based**: pattern recognition for implicit behaviors combined with machine learning
Hathaway says, “Both the collaborative filtering and content-based filtering methods have been around for a while, but remain the most advanced ways to produce recommendations — and the real magic happens when the two are put together.”

“Hybrid” recommendation engines, which combine multiple algorithmic methods, are able to achieve greater degrees of personalization than just a single method. Additionally, machine learning is another critical component to making personalization as effective as possible, by “learning” what a visitor does or does not respond to.

This chart from Datanyze shows the most used web personalization solutions in the Alexa 1 million -- minus dominant vendor Amadesa, which was bought by live chat service, LivePerson. With Amadesa included, it's hard to even see the vendors because it has 94% of market share.
Also of note is that iGoDigital was bought by ExactTarget, now part of SalesForce’s Predictive Decisions.

This chart is not exhaustive. For example, Datanyze categorizes Demandbase as an analytics vendor, but it’s more accurately filed under (B2B) personalization as well. If Demandbase were included here, it would be right after SailThru in market share. Another Demandbase competitor, Insightera, was acquired by and integrated into Marketo. These two offer ad and web personalization based on their databases of company IP addresses.

Most vendors cater to enterprises or the mid-market, but there are tools available to SMBs as well. Optimizely hopes to capture a big portion, now that it has entered the market. Others, like Bunting, cater to small companies specifically.

It’s worth noting that web personalization, based primarily on real-time behaviors, is beginning to power personalization in other channels. Deeper integrations are including data from other channels while the behavioral data is making its way into other channels. As a result, web personalization vendors are increasingly becoming cross-channel or “omnichannel” personalization vendors. SailThru, RichRelevance, Certona, and others all refer to themselves as omnichannel personalization.

**Examples**

The ANWB is the Dutch equivalent of AAA, with over 4 million members. Through personalized cross-sell and upsell campaigns on the website, ANWB has been able to increase its conversion rates by 8x. Average conversion rate went from 4% to more than 30% when the company employed BlueConic.
Brooks Brothers, America’s oldest men’s clothier, wanted to improve web optimization efforts and increase conversion rates. In particular, the company wanted to optimize the landing page experience for customers coming to the website from marketing channels. Working with Monetate and an agency, the company implemented a variety of experiments that resulted in some KPIs, like cart abandonment and cart additions, improving up to 40%.

**MOBILE**

Mobile isn’t exactly a channel, although it is often discussed as such. Apps might be called a new channel, but mobile advertising and mobile web (and even mobile email) are just extensions of existing channels. Yes, there are differences, but they are not entirely new.

Advertising has gone mobile. Web personalization today is typically mobile friendly or responsive design. 70% of email was projected to be either responsive design or mobile friendly by the end of 2014, according to a study by ExactTarget last year.

Aside from the user experience adjustment from desktop to mobile devices, personalization efforts in each of those channels, especially implemented by any of the web personalization vendors, carry over. As a result, only personalization in apps requires additional investigation.

Most apps doing any personalization are limited to push-notifications sent to specific segments. According to customer data platform Lytics, marketers are more often using mobile data for personalization in other channels rather than doing much mobile app personalization.
So far, relatively few have invested much in mobile app personalization, either. These efforts are made primarily via tools in three areas:

- **App analytics**: some vendors like Liquid have personalization capabilities today while others like Mixpanel don’t yet but aim to soon.

- **Mobile marketing automation**: like Urban Airship, Kahuna, and Localytics.

- **Existing web (omnichannel) personalization tools that also apply to apps**, like RichRelevance and SailThru.

The first two categories are extensively covered in our reports on app analytics and mobile marketing automation.

Vendors in the third category have developed SDKs to enable the same technology in mobile apps. However, some web (“omnichannel”) personalization vendors aren’t there yet. For example, MyBuys and Certona say they’re cross-channel -- and offers personalized ads, email, and website -- but does not yet extend to mobile apps.

The most common examples of mobile personalization are mobile web.

**Examples**

O’Neill, a surfwear and surf equipment brand, worked with Reflektion to personalize the website and mobile experience. The company doesn’t have a commerce app, but their mobile web strategy went beyond readability to actually distinguishing between on-the-go smartphone users and browsers using a larger tablet format, which is typically less in-the-moment. Conversion rates increased by 46%, AOV grew by 17%, and overall engagement increased by 85%.
Daniel Neukomm, CEO of La Jolla Group, which owns the O’Neill brand, tells me that the company has seen “similar performance on mobile. The visual search matrix / product recommendation is slightly different, but it’s very similar.”

Now the company is planning on applying the same machine learning to email campaigns. Neukomm says that “a recommendation engine like this is such a strong digital marketing tool that within email it can have a big effect. That is our current effort for personalization -- plus it can plug into an existing ESP. It’s an add-on, not any kind of replacement.”

GameStop is a video game, consumer electronics and wireless services retailer. The company is now personalizing recommendations throughout their site, powered by Certona, including the home page, product pages, and even search results and cart pages. They saw a 22% increase in conversions, 29% increase in items per order, and 41% increase in AOV.

After seeing these results on the website, GameStop began personalizing mobile engagement as well, where they saw similarly impressive results: 29% increase in conversions & 35% increase in AOV.
EMAIL

Email is already the marketing ROI leader, with returns $38 for every dollar invested. It’s the most preferred channel for customers to receive information from brands, too: 72% of adults surveyed want brands to contact them through email.

But email is seeing a decline in click rates because people have less time and patience. Silverpop has found that more than 50% of people unsubscribe from email lists because the content isn’t relevant, or it’s too frequent, or both.

Personalized emails counter this trend:

• 80% of Americans who read promotional emails find it helpful when brands recommend products based on past purchases (sharing of transactional history).
• 71% want recommendations based on online browsing behavior (sharing of their data when visiting websites).
• 82% of consumers admitted they would buy more items via emails that had better personalization (sharing of profile information to get better offers).
• 82% said that if they were more relevant, more emails could be sent to them each week (making more time for real-time, relevant updates).

Experian has found that subscribers who receive personalized content have:

• 29% higher open rates
• 51% higher click rates
• 6x increase in transactions

Avari has seen an overall average lift in CTOR (click-to-open rate) of 73% compared with emails with no predictive content.

Many email marketing and all marketing automation solutions offer some level of personalization. Part of the value of these tools -- especially marketing automation -- is in segmentation. But most users will find this gets them only so far.
Many email and marketing automation vendors also have partnerships with companies that focus on providing greater insight and targeting, such as lead scoring. For example, Fliptop, Mintigo, and Lattice Engines all offer predictive marketing capabilities and integrate with marketing automation systems.

The behavioral profiling used primarily in web personalization is also making its way to email. Many web (omnichannel) personalization vendors have extended to email, as noted above. Still others, like Avari, are partnering to provide web behavioral personalization capabilities to email service providers.

One of the greatest challenges with email personalization is having enough or correct contact records. Customer identity is critical for this channel, which makes clean, detailed records very valuable. Yet the majority have incomplete or incorrect contact records, affecting email deliverability and accuracy. Our report on customer identity has additional details about data cleaning and enrichment, including relevant vendors.

**Static vs. dynamic content**

Most email content today is static, although dynamic content offers several advantages. Most importantly, if something changes after an email is sent, it can still be changed. It could be that the customer has already purchased a promoted item, a sports team won a game, or a product is no longer available -- in each case, it may make sense to change the email content.

Aside from omnichannel personalization vendors like Certona and Monetate, several vendors like RealTimeEmail, Power Inbox, LiveIntent, and Bluecore enable real-time email personalization via dynamic content that can change up to the moment an email is opened. These vendors enable personalization based on time, location, device, stage of the funnel, even location-related details like the weather. Integrations tend to be light and HTML or API based. Some ESPs, like Salesforce’s ExactTarget, feature these types of vendors within their partner ecosystem.
Examples

Alex and Ani sells quality, sustainable jewelry. With help from SailThru, the company’s email marketing is now driven by data collected across multiple customer touch points, including the website. As a result, the company now serves messaging to individual consumers based on interest in specific products – details they wouldn’t have if they didn’t incorporate web browsing behavior. As a result, the company has seen a 73% lift in monthly email revenue.

Global cosmetics company L’Occitane uses Adobe Campaign (what was previously Neolane) to manage email campaigns. The company aimed to optimize the timing and messaging for every campaign -- prioritizing email but also extending beyond it. Message coordination was one concern, but in fact the biggest priority was getting a consolidated view of customers to ensure more relevant segmentation and messaging:

*Order histories, store visits, customer service exchanges, preferred products and channels, offers received, coupons redeemed, and so on, were splintered across marketing, sales, and service departments. There was also little connection between online communications and customers’ in-store or call center experiences.*
Campaigns were also being designed, executed, and measured manually, limited the total number that could be sent each year. Now campaigns have integrated data and can be automated for greater scale, resulting in:

- Conversion rates are 4x higher than previous, generic email campaigns
- In Germany, multi-buyer purchase frequency increased by 18.5%
- Revenues from email campaigns increased by 40% in some countries
Real-time matters

Real-time data and real-time personalization are increasingly important. While that’s especially true in web and mobile, real-time can make even email -- where real-time messaging doesn’t seem to count for as much -- much more effective. Basically, interest has a half-life and people don’t retain their interest levels. SAP Hybris says that after 12 hours, 70% of customer interest is gone.

We found that over a third of marketers say they can personalize in real-time. On the other hand, over 60% can’t.

One part of real-time has to do with the customer data side. Having actionable (and ideally centralized) data enables real-time actions to be taken on it. This is hard to do at scale, and companies like Target, CitiBank and William Sonoma, with multi-millions of records use Experian Marketing Services. But, as discussed in the marketing and identity report, there are many other options available.
It’s possible to make personalization more accurate by cutting out re-routing and batch processing that often delays the synchronization of new data. For example, tag management systems can provide data faster to a platform like Certona or Optimizely, which means they can take into account the most recent user actions much faster.
Recommendations, vendors, and the future

There are many other tools that can help increase conversion. We recommend you look at the broad spectrum of Conversion Rate Optimization (CRO) tools before committing to any specific personalization vendors. Our report on CRO details the multitude of options available.

But if you are looking at personalization, specifically, this simple experiment can help find where to get started:

1. Start with your objectives, like user acquisition, conversions, retention, leads, etc.
2. Next, prioritize the channels that best align to those objectives (e.g. your conversions will mostly take place on your mobile app)
3. Then score the priority of each channel and the customer data availability or accessibility to personalize in that channel.
4. Finally, add the two scores together and start with the channels with the highest combined scores.

Of course, make adjustments as necessary, but here’s what that might look like:

<table>
<thead>
<tr>
<th>Priority (score 1-5)</th>
<th>Data (score 1-5)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ads</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Web</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Mobile</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Email</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>
Also keep in mind that there’s a spectrum of personalization that can be done in each channel. You can start to do segmentation with pretty limited data and technology, but the biggest difference is scale: technology enables automating personalization and getting closer to an individual level.

<table>
<thead>
<tr>
<th></th>
<th>Basic</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ads</td>
<td>Ad network (e.g. Google AdWords)</td>
<td>Demand-Side Platform (DSP) Possibly + Data Management Platform (DMP)</td>
</tr>
<tr>
<td>Web</td>
<td>A/B testing</td>
<td>Real-time behavioral personalization</td>
</tr>
<tr>
<td>Mobile</td>
<td>A/B testing</td>
<td>Mobile marketing</td>
</tr>
<tr>
<td>Email</td>
<td>Email service provider (ESP)</td>
<td>Marketing automation</td>
</tr>
</tbody>
</table>

Key criteria to ask about during any RFP process:

- **Data**: what types of data are used, what sources can be used, what algorithms are used, at what speed is personalization done, and what integrations are available.
- **Onboarding**: what services are available for integration and training.
- **Ease of use**: it should be intuitive and minimize time investment.
- **Industry relevance**: many vendors focus or specialize in specific industries and some approaches don’t work particularly well with others, especially with web and mobile.

In our survey, we found a few tools in each channel came up most frequently when it comes to personalization:

**Ads:**

- Facebook
- Twitter

- Google
- To a much lesser degree, two DMPs: Lotame and BlueKai
Web:

- CMS (generic response, no name)
- SailThru
- BlueConic

Mobile (very few mentions overall):

- AppBoy (mobile marketing automation)

Email:

- Marketo
- Hubspot
- Mailchimp

Other tools that were mentioned include CRM and Analytics:

CRM:

- Salesforce
- Microsoft

Analytics:

- Google Analytics
- Mixpanel
- Tableau

Lastly, a few data cleaning and enrichment tools were also mentioned to lesser degrees, including:

- Experian
- Fullcontact
- Klout
- Rapleaf
- Axiom
Looking forward, two trends in particular stand out:

1. Real-time behavioral data and engagement is increasingly important.

2. First-party data is becoming more important while third-party is seen as less dependable.

As a result, expect web personalization and other vendors that focus on real-time behaviors like tag management to increasingly go omnichannel and integrate with advertising and email marketing.

If you are considering investing in a vendor, but are unsure about which channel or tool to start with, take a look at web/omnichannel personalization vendors:

- 4-Tell (commerce)
- Amadesa (now part of LivePerson)
- Barilliance (commerce)
- Baynote (commerce)
- BloomReach (commerce)
- BlueConic
- Blueknow (commerce)
- BrightInfo
- BySide (B2B)
- Certona (commerce)
- Commerce Sciences (commerce)
- Demandbase (B2B)
- Dynamic Yield (media)
- GetSmartContent (B2B)
- IBM (Content / Product Recommendations)
- iGoDigital (now part of Salesforce Predictive Decisions)
- Monetate (commerce)
- MyBuys (commerce)
- Optimizely
- Qubit (commerce)
- Reflektion (commerce)
- RichRelevance (commerce)
- Sailthru (commerce & media)
- SeeWhy (now part of SAP Hybris)
- Strands (finance & commerce)
Large enterprises can also look at Tealium and Ensighten, Tag Management Systems focused on building consolidated customer profiles.

Marketing automation vendors, which are becoming the hub of modern marketing, will also partner with or acquire capabilities to capture real-time behaviors (most of which occur on the website and in mobile apps) to incorporate behavioral and other forms of data. For example, Avari enables email personalization capabilities for several of these vendors via partnerships. More content will be dynamic as learning algorithms become better and both segmentation and content customization options improve.

THE CONNECTION BETWEEN PERSONALIZATION AND ANALYTICS

A frequent complaint from marketers is that they have tons of data, but little insight. In this respect, traditional analytics often create more work for marketers because they are not inherently actionable. Predictive analytics look at the future, though.

Both traditional and predictive analytics aim for greater operational efficiency, but only predictive scales.

Traditional analytics require investment of time to understand and draw conclusions. Predictive analytics, on the other hand, identify patterns found in historical data to inform or recommend future actions. Often, those recommendations can be automated, which means predictive analytics can scale efficiency.

Predictive analytics are therefore especially effective when applied to small-scale decisions or actions that cannot efficiently be addressed manually. Personalization is an excellent example. Predictive analytics can identify trends and interests for individuals – what they've been looking at, what types of sites they've been on, what time of day they look at different content types, etc. – and automate actions to take for each of them – what product is most relevant, when an email is most likely to be opened, what message will resonate best, etc.
CONSUMER PERSONALIZATION CONCERNS

Marketers thinking about personalization need also consider consumer privacy -- for legal reasons as well as the possibility of user backlash against a perceived invasion of privacy. If consumers feel that they are being targeted, it can cause discomfort.

To learn more about consumer expectations and concerns with regard to privacy and personalization, see our report, “The State of Marketing Technology 2015 - Hyper-personalization: What customers want, and what they hate.”

CONCLUSION

These are without doubt early days of personalization for most companies. Not only are few companies making an effort to personalize content, but most efforts are very limited. Yet companies using personalization are seeing extremely positive results and growing faster than their competitors. Most companies begin with their “known” customer data, personalizing email. But first-party data -- even anonymous first-party data -- is increasingly valuable and is playing an increasingly prominent role in personalization in all channels. Begin with the channels and tools you have, but identify gaps in customer identity, content, and delivery capabilities to build your personalization capabilities and build better customer relationships.
Appendix: vendors interviewed

**AUTOPilot**

Marketing automation focused on personalization. Users define the customer journey, set up touch-points, and filter/message by segments. Email-focused, but also integrations for SMS, direct mail, ads, and slack messages.

**Customers:** small to medium size enterprise

**Avari**

Avari uses predictive, machine-learning capabilities and progressive behavioral profiling via explicit (clicks, dls, purchase) and implicit, (dwell time, time on site, etc.) data, for email personalization (e.g. via content or product recommendations).

**Customers:** channel partners like ESPs and MAPs

**BlueConic**

Website progressive profiling: builds individual user profiles as they engage on site. Provides detailed customer profiles and decisions on what to do with them. No probabilistic data, only deterministic. Profiles can be used for segmentation, targeting across channels: ads, web, mobile, email.

**Customers:** B2C and B2B2C. Mostly publishing and retail; some CPG and FinServ.
BLUESHIFT

B2C Marketing Automation Provides an “interaction graph” instead of a traditional database, which is very “queryable” and has machine learning to identify patterns and segments. Offers marketers a combination of dynamic segmentation and dynamic content to provide personalization capabilities primarily for email but also push notifications, ads, and SMS.

Customers: mainly ecommerce

CALLIDUSCLOUD

Marketing automation and incentives to deliver contextual messages and coordinate marketing and sales activities, especially during nurture process. Particular focus on facilitating up- and cross-sell for existing customers.


CERTONA

Behavioral profiling and personalization. Primarily product recommendations but could be others (landing pages, creative images, how-to articles). Web is main channel and always entry point for customers, but Email is close second. Recently added mobile as well.

Customers: Mid-large enterprise. Range from a few million to billions in sales. e.g. Home Depot.
CRITEO

Performance marketing / personalized retargeting. I look at green nike shoes with yellow soles, you may see those shoes or similar ones. Or if you bought them, you might see shorts or something complimentary. Based on 3rd-party cookie. Builds ads on the fly using the advertiser’s assets. They do the targeting themselves.

Customers: mid-large retailers

DEMANDBASE

“Account based marketing,” delivering targeted ads and web content for B2B companies. Demandbase leverages a database of millions of IP addresses to target and personalize for specific companies, industries, size, revenue, or location.

Customers: B2B enterprise

EVERGAGE

Real-time experience personalization for web content and products. Recommending web content (not a CMS but doesn’t require tight integration with CMS) and products. Behavioral customer data can be used for personalization in other channels, so refers to itself as omnichannel personalization.


EXPERIAN MARKETING SERVICES

Offers a “Marketing Suite” (similar to a Marketing Cloud + services). Provides a unified view of the customer across disparate data sources, data enrichment (Experian is an original data compiler), and cross-channel campaign management.

Customers: large enterprise w/ multi-millions of records. FinServ, media, retail. e.g. Target, CitiBank, Williams Sonoma.
H2O

Machine learning and predictive analytics that can be used with customer data to make marketing programs smarter and more targeted. Help marketers understand multi-dimensional data, make predictions, and personalize.

**Customers:** large enterprises with large data sets, like insurance cos, Nike, PayPal, Cisco

INTEGRATE

Automate the lead and demand-gen process, making out-bound demand gen process like inbound. Simplifies process of using paid media to generate leads (CPA): makes it faster, offers cleaner data, and more efficient.

**Customers:** primarily B2B (mostly publishers), small amount of B2C retail

INTERCOM

Integrated platform to see customers in one place for marketing, support, sales. Like a lightweight CRM + chat. Add tag to any page or SDK for mobile to track.

**Customers:** small startups to desk.com, new relic, home depot. Bigger customers are using primarily the in-app messaging capability.

JANRAIN

Customer Identity Management vendor focused on consolidating known, first-party customer data for personalization. Provide social login and forms to capture user data, as well as integrations for intake and out-take of data. For personalization used primarily for email, but can also be used in other channels.

**Customers:** medium and large enterprise
LATTICE ENGINES

Basically a smart segmentation engine to tell salespeople: who will buy, what will they buy, when will they buy. Predictive lead scoring and sales analytics.

**Customers:** Mid-market and up. Pre-IPO up to F500. PayPal, Dell, HP.

LYTICS

A “data hub for marketers”: connect brand’s first-party data - web, mobile, email, other. Then provide identity resolution/profile stitching to consolidate both anonymous and known. Then enable segmentation, which can be used across channels (e.g. ad buys, mobile push)

**Customers:** small to medium sized

NETPROSPEX (DUN & BRADSTREET)

Data cleaning and enrichment to make email more efficient and accurate via their own database or entity-level, account-level, business-level data. They have 40M known, good contacts that serve as reference data. They also 250M known bad contacts (e.g. person left a company). They can also ID what technology companies are using and have financial info.

**Customers:** B2B mid to large enterprise

OPTIMIZELY

Known for A/B testing, they recently launched a personalization offering for web and mobile. Identify audience segments and personalize their experience: can launch hundreds of personalized experiences.

**Customers:** SMB to enterprise
SAILTHRU

Omnichannel personalization. Consolidate customer data and create central customer profile; add automation and cross-channel engagement. Use behavioral data to drive most personalization, including web and email, but can also incorporate existing historical data.

Customers: mostly mid-size; commerce focus, but variety of others.

SALESFORCE MARKETING CLOUD: PREDICTIVE DECISIONS

Based primarily on ExactTarget’s acquisition of iGoDigital. They provide real-time personalization at the point of interaction in email, web, and mobile. Compete with RichRelevance, Certona, MyBuys.

Customers: mid-large enterprise. Many retail.

SAP HYBRIS

Hybris Marketing provides real-time behavioral marketing that crosses ad-tech and martech. Designed to pull all data into one place, then use it for targeting and personalization in ads, email, web, mobile.

Customers: B2B and B2C. Medium and large enterprise.

SEGMENT

Data integration management, somewhat similar to tag management. Segment has over 150 integrations with Email, A/B testing, analytics, CRM, helpdesk, and other categories. They can: 1. Identify who users are (User ID + traits) and 2. Track what are they doing (activity). That can then be ported to other tools for engagement.

Customers: medium to enterprise
SDL
Marketing cloud focused on content and delivery side; limited data and customer identity capabilities beyond social. Rather takes existing customer data and stitches it together for personalized engagement.

Customers: mid-large enterprise. (heritage is in localization and translation)

TEALIUM
Tag management solution that aims to provide a “single point of truth” for customer journey. Provides a real-time behavioral profile of customers that can be used across channels. Can be used in conjunction with web content personalization like Certona or Optimizely 800+ integrations via tag management and an API marketplace


HUBSPOT
Inbound marketing and marketing automation (content creation, management, SEO, lead gen, and lead nurturing). Also have their own CRM system.

Customers: 70%+ are B2B. Primarily mid-market, although have many smaller and some larger enterprise customers.

KENSHOO
Cross-channel and device advertising. Integrates with CRM and DMPs for data.

Customers: Mostly enterprise B2C; ecommerce and travel. Some FinServ, education. Acquired Adquant last year, which put them into gaming (mobile app installs), too.
MONETATE

Web personalization platform (desktop and mobile web, mobile apps, and email). Can use existing historical data, contextual data (like device, location), and behavioral / clickstream data.

Customers: large enterprise ecommerce, e.g. Macys, North Face, Sur La Table

REFLEKTION

Web personalization (that extends to mobile and email) for ecommerce. Progressive behavioral profiling is used to personalize to individual level, rather than segments.

Customers: mid to large enterprise. ecommerce, mainly retail

THUNDERHEAD

Customer experience management. Create consolidated customer profiles based on interaction behaviors and disparate data silos. Customer journey mapping and visualization, see what’s working at each point, and serve the next best conversation across channels in real-time.

Customers: mid to large enterprise. Banks, travel, hospitality, utilities, retail
About VB Insight

Research at VB is future-focused and predictive. It’s actionable. It’s something that you can rely on when making business decisions. That’s no simple matter. It requires more than pontification, more than a few desultory vendor interviews, and more than a few phone calls. It requires rigor, deep analysis, patient data-collection, and tested insights.

That’s how we do research at VB, and that’s our commitment to you!