

For: Application
Development
& Delivery
Professionals

Advance To Next-Generation Personalization

by Anjali Yakkundi and Ron Rogowski, January 13, 2014

KEY TAKEAWAYS

Firms Will Maximize Customer Relevance With Next-Generation Personalization

Firms must deliver relevant experiences to their customers across channels. But they have struggled to do so from both a strategy and a technology standpoint. The answer is to move to more contextual experiences that are tailored, adaptive, and sometimes predictive.

Decide Which Processes Will Support Contextualization Initiatives

Two main processes can support contextualization initiatives: rules-based manual processes and automatic processes. Rules-based manual processes require creating rules that dictate when content is displayed. With automatic processes, delivery applications display based on previous behaviors and/or expert-driven metadata.

Map Contextualization Needs To Existing Tools

Though the vendor landscape for products that support contextualization is fragmented and confusing, you may already own at least some of the technologies needed to support contextualization. These include products such as web content management (WCM), site search, analytics, eCommerce, recommendations engines, and analytics solutions.

Begin Your Journey With Measured Steps, Not A Flat-Out Run

Organizations that have failed in personalization initiatives often tried to do too much at once. Instead, successful organizations we spoke to avoided these pitfalls in new contextualization initiatives by starting small and adding a personal touch for certain experiences before ramping up to large personalization initiatives.

Advance To Next-Generation Personalization

Support Relevant Digital Experiences In The Multichannel World With Contextual Experiences

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with [Stephen Powers](#), [Harley Manning](#), [John R. Rymer](#), and [Steven Kesler](#)

WHY READ THIS REPORT

Organizations have long personalized their websites for customer segments. Now they need to go further, first by delivering the right experience to the right user at the right time and on the right device and next by delivering relevant, tailored experiences that meet individual user needs by combining historical, behavioral, and profile data with real-time situational feedback. We call this next step in customer experience targeting, contextualization. This report helps application development and delivery (AD&D) professionals understand what contextualization is, what its benefits are, and what tools, processes, and technologies can help deliver it.

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Notes & Resources

Forrester interviewed 24 vendor and user companies, including: 3M; Adobe; Autonomy, a division of HP; Baynote; Bluefly; BGT Partners; Certona; Coveo Solutions; Dell; Demandbase; DocuSign; Ektron; iSite; Maxymiser; Monetate; MRM Worldwide; Oracle; Rosetta; Razorfish; RichRelevance; SDL; Siteworx; T3; and UncommonGoods.

Related Research Documents

[Contextualization](#)

November 19, 2012

[The Unified Customer Experience Imperative](#)

May 7, 2012

[Use Customer Analytics To Get Personal](#)

February 17, 2012

[The Future Of Mobile Experiences Is Context](#)

October 26, 2011



FIRMS STRUGGLE TO DELIVER RELEVANCE AT SCALE

More than ever, firms need to deliver relevant experiences to their customers across a range of devices.¹ These experiences must meet customer needs, feel personal, and deliver in-the-moment experiences.² Organizations that can do this have increased customer engagement, customer loyalty, and eventually see bottom-line benefits like increased revenue.³

What stops firms from delivering highly relevant experiences? Companies fall short of meeting customer expectations when they:

- **Make technology decisions before understanding what customers want and need.** Forrester clients often ask about personalization technology solutions before having done any customer research or creating a personalization strategy. These organizations often end up with misaligned technology decisions or with technology that sits on the shelf.
- **Can't share customer data across silos.** Nothing says "I don't care about you" more than forgetting a customer from one moment to the next. But that's exactly what companies do when they fail to share customer information across organizational or channel silos.⁴ As a result, when customers cross from one touchpoint to another — for example, moving from a mobile app to a desktop website — firms fail to recognize them, so customers have to start pursuing their goals from scratch.
- **Don't take advantage of predictive, real-time cues.** Users' current circumstances, such as location, time of day, and even weather, can determine their immediate needs. But even though today's connected devices can provide a wealth of information about users' context, few firms take advantage of this data to predict what users want and need from them in the moment.⁵

MOVE FROM PERSONALIZATION TO CONTEXTUALIZATION

To succeed in today's digital environment, firms must deliver smarter, more-customer-centric interactions that feel like they were tailored for each user and his or her specific set of circumstances. It must be more dynamic and more predictive than current personalization techniques. That's why firms need to evolve their thinking to focus on contextualization, which Forrester defines as:

A tailored, adaptive, and sometimes predictive digital customer experience.

Contextualization takes existing personalization techniques (e.g., segmentation, targeting, collaborative filtering) a step further by automating decision-making and adding in-the-moment details.

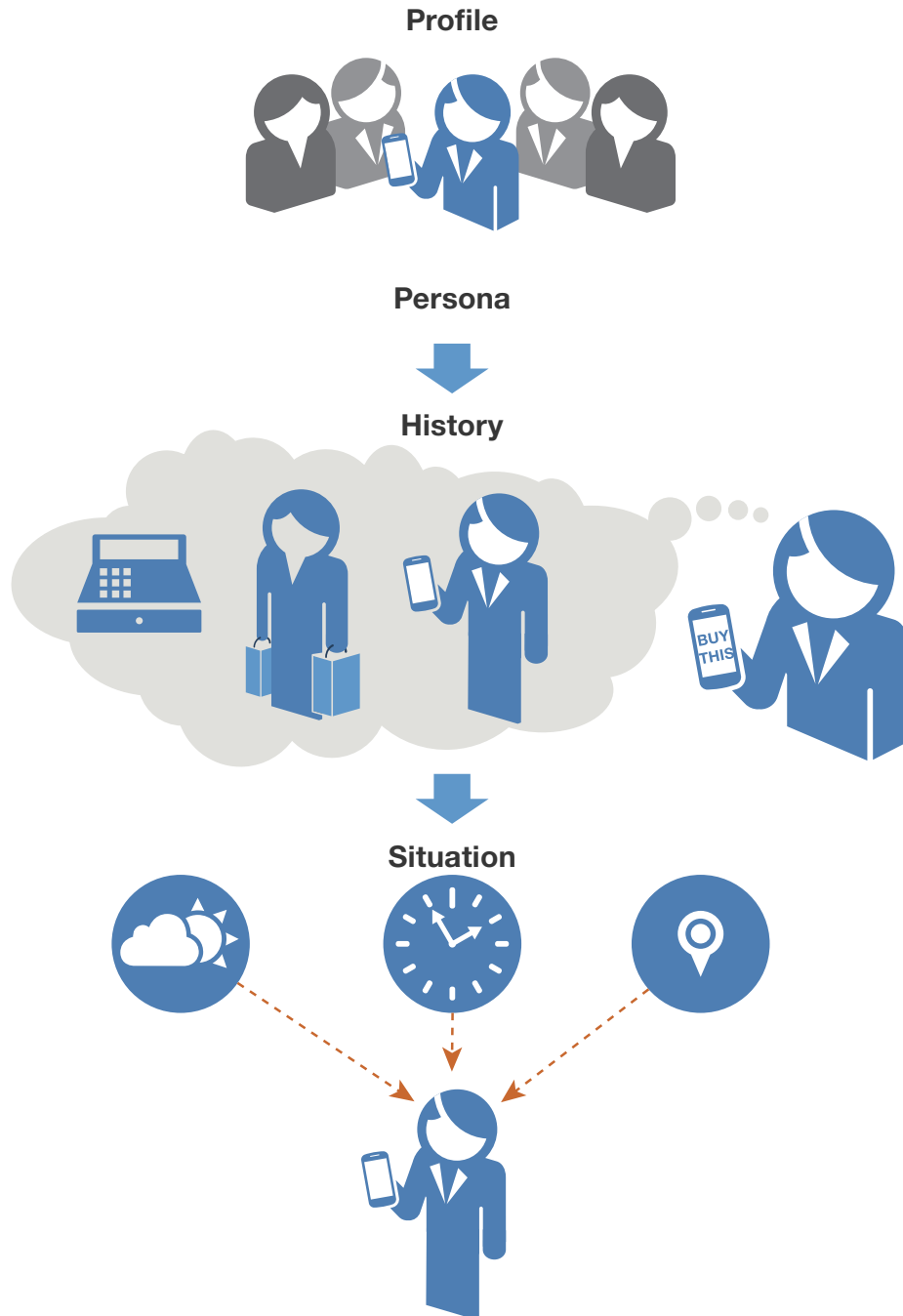
Contextual Relevance Is Powerful

Three key types of data inputs power contextualization (see Figure 1):

- **Profile data: Who the customer is.** Aggregate information about the audience segment members and their behaviors — for example, how they interact with digital channels, key concerns, and subject-matter knowledge — helps companies design the right overall experience. Personal information about individuals, such as where they live and their specific interests, allows additional tailoring.
- **Historical data: What the customer did in the past.** People leave many markers when they interact with a company, including a record of the web pages they visited and the purchases they made. A firm can combine aggregate data from all of its users with individual histories to anticipate customer questions and/or predict future actions.
- **Situational data: What's happening with the customer now.** Factors such as time of day, geographic location, device, and browser indicate a user's current situation. Organizations can map this data to aggregate information about similar users to help predict what an individual may be trying to achieve at a given point in time.

These inputs power relevant experiences such as location-targeted content, adjacent content, right-sized content and functionality, and adaptive designs. For example, GateGuru, a mobile app that helps travelers find restaurants and services at airports, suggests a list of local airports based on user location.

Figure 1 Contextualization Combines Profile, Historical, And Situational Data



MULTIPLE TECHNOLOGIES SUPPORT CONTEXTUALIZATION

Firms beginning or expanding support for web contextualization may already own at least some of the technologies needed to support contextualization. Some technology tools that support contextualization include:

- **Web content management (WCM) and commerce solutions.** WCM and commerce solutions offer business-user-friendly interfaces that enable manual rules-based personalization.⁶ In addition, they increasingly offer automated solutions for deeper contextualization via integration with other products in the vendor portfolio (e.g., Adobe CQ5 and SDL Tridion). Some also offer some basic tools for managing segmentation.
- **Analytics.** Web analytics software (like Adobe, IBM, Google, and Webtrends) helps business users measure what's happening across digital channels and generate actionable data to make positive changes that drive better digital results. These customer insights help marketers better understand what experiences are and are not working, and for which customers and which touchpoints customers need a more personal touch.
- **Testing and optimization solutions.** A/B and multivariate testing tools (like Adobe, Maxymiser, Monetate, Optimizely, and Webtrends) allow marketers to test multiple variations of contextual experiences to determine which version better and most efficiently engages with customers and prospects. Many of these tools have expanded to include features to help with greater optimization issues and leverage exploratory, descriptive, and predictive analytical and statistical techniques to drive relevant content, interactions, and offerings to end users across channels, campaigns, and ideally the entire customer experience.⁷ These solutions are promising; they automatically take data from multiple sources and dynamically and automatically deliver contextually relevant information to customers. Currently, however, most Forrester clients still struggle to pull data from multiple sources and automatically deliver contextually relevant experiences.
- **Recommendation engines.** Third-party recommendation engines (like Baynote, Certona, Monetate, RichRelevance, Adobe) dynamically serve recommended products as well as text, ads, and other content. Many of these solutions primarily focus on commerce sites, though some vendors have expanded outside of this one use case (e.g., self-service or informational websites). These solutions will continue to be relegated to product recommendations until they can pull data from multiple sources and contextualize experiences outside of just product recommendations.
- **Site search solutions.** Site search solutions (like Adobe, Google, Oracle, Coveo, and open source Lucene/Solr) bring contextualization techniques to search in order to better answer customer queries and deliver contextual promotions by changes to search algorithms and merchandising features. The more advanced solutions, however, go a step further by delivering contextual search results by taking into account behavioral, situational, and historical data

inputs. Some of these more advanced solutions are even able to deliver contextually relevant microsites and landing pages based on search terms.

- **Cross-channel campaign management.** These vendors (e.g., IBM, SAS, Neolane, Aprimo, Oracle, ExactTarget) provide contextualization support at the brand and campaign level. Solutions may offer functionality like segmentation, as well as the optimization of contacts, offers, email campaigns, and channels within any given campaign via automation and/or business rules.⁸
- **Custom-built applications.** Custom apps are especially important for organizations thinking of personalization beyond the traditional and mobile Web, and they are looking at contextualization via other channels like mobile application, in-store, and emerging devices (e.g., wearables).⁹ Custom-built applications will require strong application development resources (e.g., developers, business analysts, project managers) from internal and/or external resources like digital agencies.

Despite the myriad technology solutions available, for most organizations, sourcing a single tool won't immediately bring to bear more contextual experiences. On the back end, customer data management strategies will also help facilitate the delivery of more contextual experiences.¹⁰

ORGANIZATIONS BEGIN TO TRAVEL DOWN THE CONTEXTUALIZATION PATH

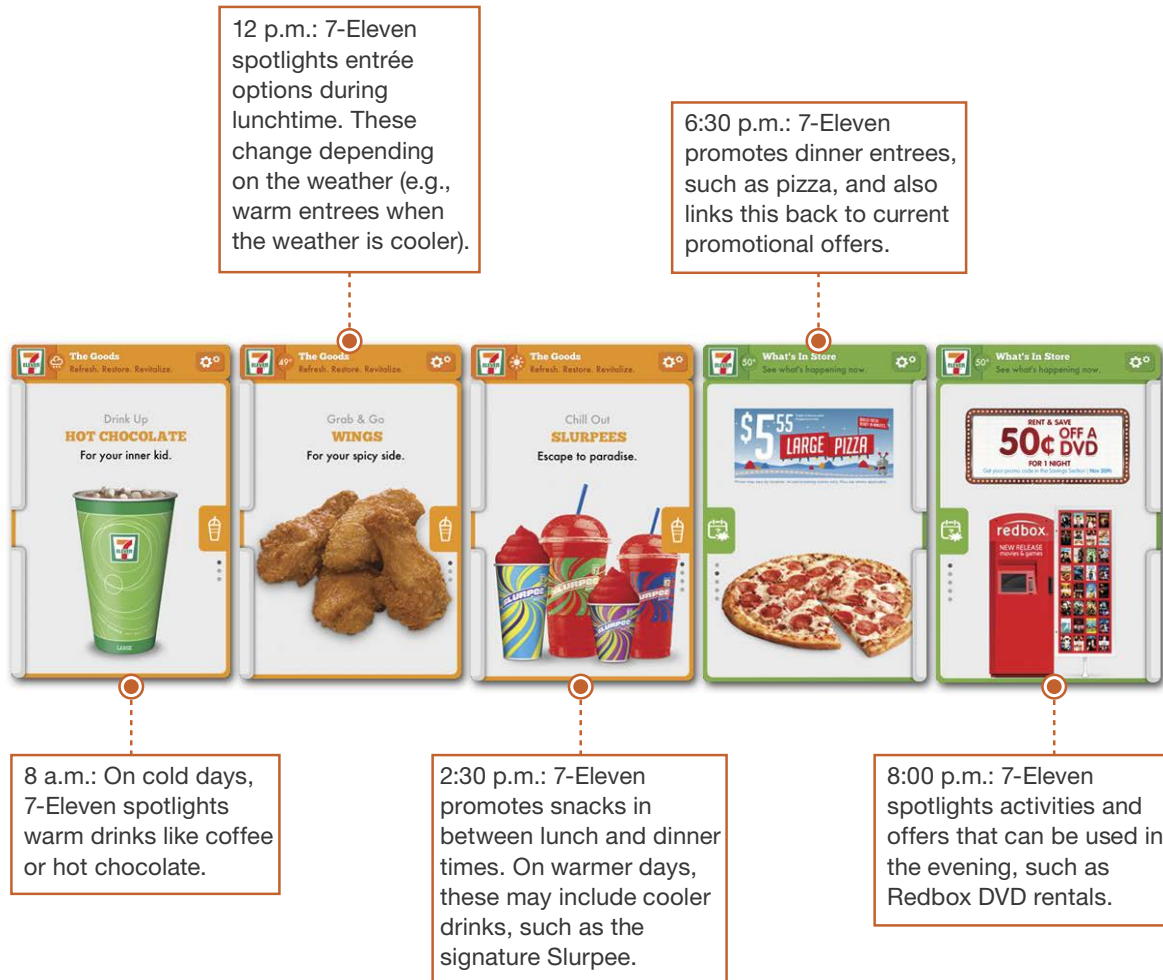
Creating a holistic view of the customer by pulling together data from disparate systems is a huge — and seemingly impossible — task. Successful organizations prioritize: 1) understanding which customer segments they need to personalize for; 2) which key customer interactions need a personal touch (e.g., mobile interactions that have many implicit details like device and location are touchpoints that can harness the full power of content); 3) how much personalization is required, as over-personalizing experiences may introduce the “creepiness” factor or make too many assumptions about a customer's behavior; and 4) what technology strategies and solutions can help them achieve that goal.¹¹

Organizations that have started down the path to contextualization include the following:

- **A travel and hospitality company uses location to better target experiences.** One travel and hospitality company contextualizes experiences based on location. It examined customer behavior patterns and determined that customers from certain geographic locations (locations further away from the coast, like the Midwestern states) were more likely to seek information and purchase longer trips than were users closer to the coastline (like users in Florida). This organization used AD&D professionals and agency partners to help implement testing/targeting and web content management tools to deliver this more targeted experience based on location.

- **A B2B company contextualizes its web experience.** A business-to-business (B2B) company we spoke to has a diverse customer base that includes buyers from many different verticals, different departments, and various organization sizes. Each of these users necessitated a different web experience. The company's first step included implementing and integrating marketing automation, analytics, third-party data sources (e.g., using the IP address to determine a user's vertical), and testing tools. The firm heavily relied on AD&D pros to integrate the solutions, particularly on the data front (e.g., merging customer resource management [CRM] data with marketing automation solutions). The new, more contextual web experience now presents a more contextual experience across the website with content such as industry-specific case studies and webinars in addition to promotions targeted to the type of user.
- **7-Eleven contextualizes its mobile application.** Digital agency T3 works with 7-Eleven to better contextualize the company's mobile experience. T3 and 7-Eleven started with customer research and found that customer needs were volatile and likely to change on even an hourly basis. To account for this, 7-Eleven and T3 created a mobile application that took into account context such as location, time of day, and weather. Now, the application spotlights products depending on these factors (see Figure 2). AD&D professionals were heavily involved in developing the mobile application, which included creating the 40 application programming interfaces (APIs) used to ping multiple data sources. The end result is a mobile experience that changes based on factors like location, weather, previous activity, and speed at which you're traveling. This organization targets content accordingly, and it provides information about the closest store and contextualizes coupons and promotions based on the customer's top-of-mind factors.
- **Tempo improves on traditional calendars via contextualization-rich features.** Tempo AI, a calendar mobile application, takes the principles of contextualization and makes it core to its entire business model. For example, this application eliminates steps that most business users face when moving from calendar to conference calling. It automatically dials conference call phone numbers and pass codes, retrieves documents and emails related to the meeting, and gives the option to send a "running late" text message or email to fellow meeting attendees with the touch of a button. This ability to take contextually relevant inputs from the customer's existing data in the phone allows a more contextual and more seamless experience for customers (see Figure 3).¹²

Figure 2 7-Eleven Uses Situational Data To Contextualize Its Mobile App Experience

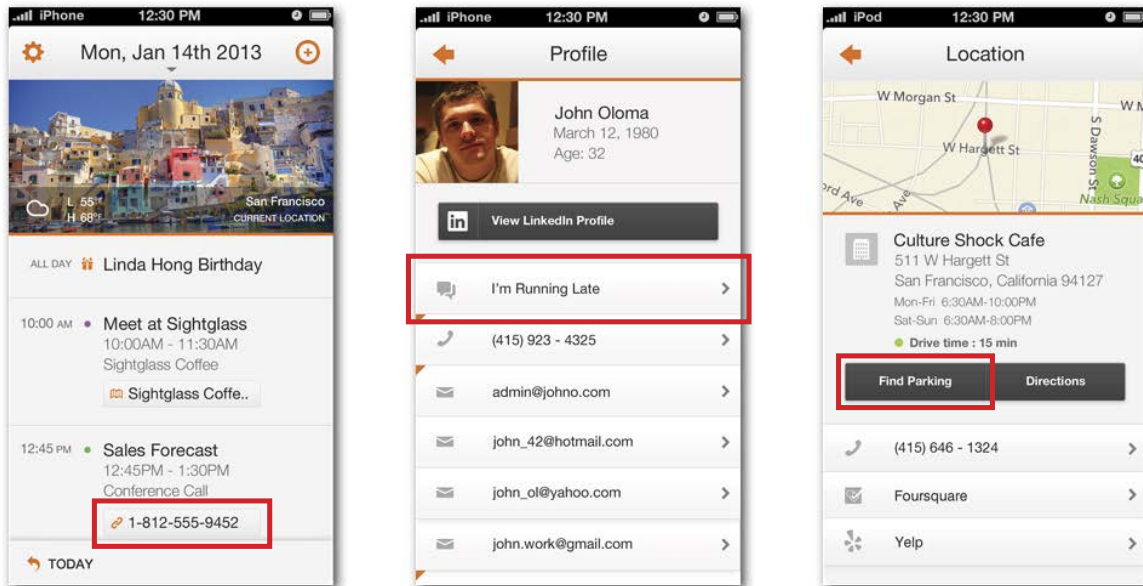


Source: 7-Eleven

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Source: Forrester Research, Inc.

Figure 3 Tempo Improves On Traditional Calendars Using Contextually Rich Features



Tempo recognizes conference calls and dials both the phone number and the pass code with one tap.

Tempo allows you to send a “running late” email or text message to attendees by pressing a button.

The app provides directions to your meeting and can help you find parking nearby.

Source: Tempo AI press kit images and website

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Source: Forrester Research, Inc.

RECOMMENDATIONS

APPLY THE RIGHT TECHNOLOGIES TO SUPPORT CONTEXTUALIZATION EFFORTS

Contextualization can be powerful for companies that know how to apply it. This includes applying the appropriate technologies in the right scenarios. To support contextualization, AD&D professionals should:

- **Understand experience goals before making technology decisions.** Too many organizations go straight to technology buying decisions when they embark on contextualization initiatives. Contextualization initiatives must prioritize customer relevancy, so AD&D pros should let their customer experience peers lead the strategy before solving technology challenges. If your customer experience peers come to you before they’ve set a strategy, educate them on the diverse technology landscape and send them back to the drawing board.

- **Assess current technology capabilities before purchasing new solutions.** You may already own enough technology to start down the path. Don't be overly influenced by glossy and bold promises from new vendors. Instead, evaluate current capabilities included in your digital experience technologies against business requirements before immediately going on a buying spree. You will almost certainly be able to support simple, manual rules-based contextualization with your current tools, and as you progress, you can look to source newer, more specialized solutions and will need to inevitably do some customization (particularly for mobile applications).
- **Prioritize customer data management.** How can you turn customer data into a customer experience that's more contextual, more personal, and more competitive? You need to start with your customer data management (CDM) strategies. Your data management strategies will begin with traditional CDM architectures and support the integration of several customer data sources — packaged applications like CRM and enterprise resource planning (ERP), application logs (clickstream data), and data warehouses — to support a more complete view of the customer. But you'll need to do more. Gaining competitive advantage requires providing actionable customer insight via real-time engagement, which demands faster, agile analytics and prediction.¹³
- **Be prepared for a journey.** As a global director of marketing and commerce at a global manufacturer recently told us: "Success is going to be slow and fragmented." Be aware that your first and second (and maybe even your third, fourth, and fifth) attempts may not yield the desired results. Contextualization is a largely iterative process, so be patient, take many small steps, always test experiences, and learn from your mistakes as you go. For example, many organizations start small with targeting based on demographic information the customer has provided, or geolocation targeting, and then move to contextualization via real-time decisions based on customers' click paths.

SUPPLEMENTAL MATERIAL

Companies Interviewed For This Report

3M	Bluefly
Adobe	Certona
Autonomy (a division of HP)	Coveo Solutions
Baynote	Dell
BGT Partners	Demandbase

DocuSign	Razorfish
Ektron	RichRelevance
iSite	Rosetta
Maxymiser	SDL
Monetate	Siteworx
MRM Worldwide	T3
Oracle	UncommonGoods

ENDNOTES

- ¹ Today's empowered customers own multiple connected devices and have high expectations for getting information and services when and where they need them. As of Q3 2011, the average US consumer owned two connected devices. Given forecasts for continued smartphone and tablet adoption, that number will likely increase in the coming years. Source: North American Technographics® Online Benchmark Survey, Q3 2011 (US, Canada).
- ² Three ingredients make relevant customer experiences: profile data about who the customers are, historical data about what customers have done, and situational data about what's happening in their lives now. See the November 19, 2012, "[Contextualization](#)" report.
- ³ Using data from more than 7,500 consumer surveys, Forrester examined the correlation between the customer experiences delivered by more than 150 US firms and the loyalty of their customers. Our analysis shows that good customer experience correlates to consumers' willingness to repurchase, reluctance to switch, and likelihood to recommend firms across all 14 industries we examined. See the March 26, 2012, "[The Business Impact Of Customer Experience, 2012](#)" report.
- ⁴ Only 30% of 233 surveyed digital experience delivery professionals believed that their organization worked in unison when it came to executing digital experience plans. Source: Q1 2013 Digital Experience Delivery Survey.
- ⁵ Personalization technology has grown well beyond greeting people by first names into complex, real-time decision engines that make offers. But marketers still rely on stated demographic attributes to execute personalization because of the easy availability of this data in a customer profile. One retail bank executive told us that the customer's post-login experience on the bank website consists of addressing the customer by name and including a message or offer based on the customer's account profile — a fairly basic execution of post-login personalization. See the February 17, 2012, "[Use Customer Analytics To Get Personal](#)" report.
- ⁶ Forrester evaluated 10 WCM products across approximately 115 criteria and found that they have a lower level of maturity when viewed against these capabilities. SDL and Adobe lead due to their rich functionality, strategy, and enterprise track record. Strong Performers Sitecore, FatWire, OpenText, and Autonomy all provide strong options. Contender Ektron has solid functionality but needs to work on its enterprise-level

track record. Contender IBM lacks the broad set of capabilities others have in WCM but has other CXM software assets and a strategic integration road map. Contenders Microsoft and Oracle have less of a CXM focus but are legitimate alternatives for less interactive experiences. See the July 13, 2011, “[The Forrester Wave™: Web Content Management For Online Customer Experience, Q3 2011](#)” report.

In Forrester’s 75-criteria evaluation of global business-to-consumer (B2C) enterprise-class commerce suite vendors, we identified the 10 most significant software providers — Demandware, Digital River, hybris, IBM, Intershop, Magento, Micros-Retail, Oracle (ATG), RedPrairie, and SAP — in the category and researched, analyzed, and scored them. This report details our findings about how well each vendor fulfills our criteria and where they stand in relation to each other to help eBusiness and channel strategy professionals select the right partner for their B2C online and multichannel commerce solution. See the September 24, 2012, “[The Forrester Wave™: B2C Commerce Suites, Q3 2012](#)” report.

- ⁷ There are five main subsets of vendors delivering optimization solutions: predictive analytics (e.g., Angoss, IBM, SAS), marketing analytics (e.g., AgilOne, Clario Analytics, Quiterian), landing page optimization (e.g., Ion Interactive, Optimizely), heritage testing (e.g., Maxymiser, Optimizely), and customer data management (Blue Kai). See the September 3, 2013, “[TechRadar™ For AD&D Pros: Digital Customer Experience Technologies, Q3 2013](#)” report.
- ⁸ In the cross-channel campaign management Forrester Wave evaluation, Forrester looked at how vendors support traditional campaign management capabilities — program planning, cross-channel decision management, optimization, and analytics — as well as meet the emerging needs of marketers in cross-channel execution, social campaigns, and real-time, contextual triggers. See the January 31, 2012, “[The Forrester Wave™: Cross-Channel Campaign Management, Q1 2012](#)” report.
- ⁹ Forrester’s mobile app development playbook is your guide to executing a mobile app development strategy. Whether you are buying or building mobile apps, it will help you understand how the mobile shift is changing the art of the possible, how to prioritize your mobile projects, and how to build and source a mobile app strategy. See the June 28, 2012, “[Build Great Mobile Apps That Drive Engagement](#)” report.
- ¹⁰ Rookies make the mistake of thinking that customer data is just about customer relationship management (CRM) or just about transaction history. Not so — customer data is the lifeblood of your entire organization. It lives in and should enlighten every function of the business, including R&D, operations, customer experience, marketing, sales, service, and finance. See the October 1, 2013, “[Nail Your Next-Gen Customer Data Management Strategy](#)” report.
- ¹¹ Consider what happened when Urban Outfitters tried to tailor its online experience for female shoppers by funneling them into the women’s part of the site only, effectively shutting off access to the men’s area. It didn’t take into account the fact that many of its female customers regularly shop for men’s items as well. Source: Natasha Singer, “E-Tailer Customization: Convenient or Creepy?” *The New York Times*, June 23, 2012 (<http://www.nytimes.com/2012/06/24/technology/e-tailer-customization-whats-convenient-and-whats-just-plain-creepy.html?pagewanted=all>).
- ¹² The proliferation of new form factors and touchpoints has companies struggling to create digital experiences that meet rising customer expectations. To handle this challenge, customer experience

(CX) professionals need a digital experience strategy that shifts the mindsets of their organizations from obsessing about specific capabilities for projects that occur in silos to having broader, more customer-focused perspectives. When organizing the skills needed to deliver improved digital customer experiences, CX professionals should act and adopt an ecosystemwide approach that considers the broad mix of employees and partners required to make their CX strategy and vision a reality. See the October 11, 2013, [“Digital Customer Experience Teams In The Post-PC Era”](#) report.

- ¹³ Tomorrow’s personalized customer experiences will be more contextual, informed by data such as GPS location, customer input, social data, and interaction with other digital experiences. Delivering a contextual experience requires the immediate assimilation and processing of data. To deliver real-time personalized customer experiences, organizations need to look at new technologies and approaches such as distributed in-memory platforms, event-stream processing, parallel data processing, and data virtualization. See the March 6, 2013, [“The Future Of Customer Data Management”](#) report.

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